

**Elementary Teachers' Training
(In Service)**

**Two Year D.El.Ed. Course
(Through ODL Mode)**

**Two Year D.El.Ed. Course (ODL) for Para-teachers
and Residual Primary School Teachers 2015-17**

**Art, Health, Work Education
&
Physical Education
(English Version)**

West Bengal Board of Primary Education
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West Bengal Board of Primary Education

Revised 2nd Edition, published by WBBPE in 2014

Updated Reprint Edition for Para-teachers and Residual Primary School Teachers
2015-17

Neither this book nor any key, hints, comments, notes, meaning, connotations, annotations, answers and solution by way of questions and answer or otherwise should be printed, published or sold without the prior approval in writing of the President, West Bengal Board of Primary Education.

Publisher : Prof. (Dr) Manik Bhattacharya, President

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Prelude

It gives us immense pleasure to announce that a Two-year D.El.Ed Course, ODL Mode (approved by N.C.T.E) is about to commence as a result of the collaborative efforts of the WBBPE with the Govt. of West Bengal in the School Education Deptt. after having overcome all the obstacles. This is going to solve the problems of the existing in-service untrained Primary Teachers of our state in the context of N.C.F. - 2005, N.C.F.T.E.-2009 and RTE Act-2009 as well. It has been decided that this two year teacher-training course will be conducted in the Open Distance Learning Mode under the aegis of the West Bengal Board of Primary Education for the next three years. Following the order of the School Education Department, W.B., a team of experts comprising eminent educationists, representatives of N.C.T.E and IGNOU has very sincerely prepared the syllabus, study materials, guide books for the trainees and the Coordinators and Counsellors of the 2 year D.El.Ed Course (ODL Mode) under the supervision of WBBPE. The curriculum and Syllabus of the core papers, four method papers with one compulsory optional paper out of two and four practical papers have been framed. Separate year wise study materials have been prepared for each paper and approved by NCTE.

The WBBPE will be glad if these study materials and guide books, which have been developed following the norms of the Open Distance Learning Mode, prove to be fruitful.

The WBBPE welcomes constructive suggestions and feedback for the improvement of these publications. The West Bengal Board of Primary Education would also like to convey sincere gratitude to all the eminent academicians from the NIOS, NCTE, IGNOU, SCERT, West Bengal DIETs, PTTIs and the Syllabus Committee and all others involved in the process of composition, editing and publication of these books.

Dr. Manik Bhattacharya

President

West Bengal Board of Primary Education

December, 2014

PREFACE

(About Us)

Keeping in mind the structure of National Curriculum Framework - 2005, National Curriculum Framework for Teacher Education-2009 and all other relevant sub-clauses of RTE Act- 2009, steps have been taken to prepare a structure of teaching subjects and other relevant subjects for D.El.Ed Course for two years through distance education. The aim of this present course is to give conceptions of these three compulsory matters so that teachers' conceptions and activities come in their area of thinking. All teachers should have concrete, clear and transparent conceptions of this RTE Act. The teacher will always keep in mind while giving teaching in the classroom following the methods and techniques by way of discussion and presentation that he will have to note whether learners are eager, concentrative and responsive. By this, the progress of the class teaching can be understood. Provision of additional time shall be kept for the active participation of the learners in the classroom teaching. Learners have every right to know subject matter. It should be kept in mind that teaching and learning should be friendly to the learners and should be child-centric. Activity method, heuristic method and questioning shall be followed in the teaching-learning process. Learner shall be kept away from all sorts of mental fear and anxieties. They will be allowed with liberty and freedom to give their opinion in their learning process. In this context eight sub-clauses of clause 29 of RTE Act 2009 shall be remembered. Regarding evaluation it has been stated that total evaluation of knowledge and power of application of a child shall be done. This is my request to all teachers that they will keep in mind their role and do their best.

Keeping in mind the difficulties of the student teachers who do not excel in Bengali, the present English version has been produced from the original module in Bengali version. Hope this translated module would serve the purpose of those student teachers.

Be your total efforts successful and beneficial to the learners.

Prof. Dr. Manik Bhattacharya
President,
West Bengal Board of Primary Education

Preface for the Second Edition

Modules of Two Year D. El. Ed Course were first prepared in the year 2012 for the teachers' training of in-service Primary Teachers of West Bengal through ODL mode. The modules were very much popular to its clientele and were effective in imparting training. In the mean time the curricula of Primary Education and of regular Two Year D. El. Ed. have been changed. With a view to incorporate those changes in the Primary Teachers' Training the content and style of presentation have also been changed in the modules of Two Year D. El. Ed. (ODL) Course for the next session. Hope this module would enjoy more support from its clientele. Any suggestion for the improvement of this module will be thankfully received.

With best wishes to all,

December, 2014.

Prof.(Dr.) Manik Bhattacharya

President

WBBPE

Preface to the Reprint of Art, Health, Work Education

(Written according to the ODL- Syllabus, revised in 2014)

**Reference : Two Year D.El.Ed. Course (ODL) for Para-teachers and
Residual Primary Teachers**

Session-2015-17

(Vide NCTE-Approval No. F.62-3/2011/NCTE/N&S, Dated : 24.04.2015)

It gives me profound pleasure to write that the reprint-edition of the Module : Art, Health, Work Education for the Teacher trainees, undergoing the second year of Two Year D.El.Ed. (ODL) Course for untrained Para-teachers of both Primary and Upper Primary schools as well as residual primary teachers has been procured both in Bengali and English versions and is being distributed free of cost to all the registered trainees.

This Reprint Edition has also been updated accordingly by the members of the Core-faculty Council of the Board. This book is only meant for the Two year D.El.Ed. (ODL) Course-2015-17 for in-service teachers, not for any other course or syllabus. No such book can be sold in the market. If anybody is found to be selling this book or photocopy there of or printing notebook/guidebook, she/he shall be punished in accordance with law.

Hope, this book will help the trainee teachers understand the spirit and content of the subject for furtherance of the search for quality in Elementary Education.

February-2018

Prof (Dr.) Manik Bhattacharya

President
West Bengal Board of Primary Education

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**ART
EDUCATION**

Unit —1

Performing Arts, Dance, Music and Theatre

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1.1 Introduction

Literature, Music and Art are an integral part for building a child's personality and overall development of mind & body

Rabindra Nath Tagore

Indian's secularism is reflected in her art & culture. A child would grow up into a secular, creative minded ideal citizen if he/she is made aware of the rich heritage of the country & her culture.

A child's over all development of body and mind can be achieved through art education. His/her ability of assumption, sensibility, creativity and logical thinking and other skills will be enhanced.

Art education inbibes various virtues like discipline, patience and creativity thus motivating a child's interest in learning and punctuality at school.

1.2 Objective

- Joyful Experience
- Enhance adaptability as per situation
- Using clay, sand, pebbles, flower, leaves and other locally available ingredients from nature the child learns to create artefacts independently.
- With the help of rhythm and music or dance children learn to respond to the nature & learn rhymes and also recognise shapes and colours
- They learn to be a team and live unitedly.
- Children learn to take logical decision beyond or without the conventional answerscripts.
- Will be able to express their ideas and emotions in various situations.
- The five senses are developed so as to voice their observations, findings and sensitivity.
- Make aware about wholistic learning of surrounding environment.
- Use all the five senses of a child to enable proper child centric learning is the aim of this course.

1.3 From Pre-primary to Upper-Primary level

In the primary level syllabus should enhance the child's level of awareness development. The syllabus should promote creativity and expressing himself independently.

In the upper primary level along with the development of awareness the child should be attracted towards folk arts and Fine Arts, so that he/she develops an interest for the lesson and later on may apply or present his/her creativity/creative skills, engages a child's attention and helps child's wholistic development, both Physical & Mental.

So if a child is introduced to hands on learning of Art through singing, listening to music, seeing dance, drama etc. later on the child will start enjoying these skills.

That's why in the upper primary level as a child's participation will enhance his/her skill. Society too shall benefit.

1.3.1. Meaning and concept of Art & Aesthetics

‘Art’ is the product of a synchronised thought process of tradition that has an influence on the mentality of an individual and the society. It is found amongst various artistic works and the affluence of the industry. Thus the concept of Aesthetic is embedded in the meaning and philosophy of Art Education.

Traditionally speaking the word ‘Art Education’ is used when SKILL is of importance. But now it has changed.

Art is the logical expression of an individual’s fundamental thought process and mentality.

Aesthetics is the collective expression of philosophy which is revealed through the nature, environmental art education, sensitivity, creativity and worshipping beauty. Aesthetics is the study of creative art. It is the reflection of the contemporary society.

1.3.2. Significance of Art education at Elementary level & its importance.

Since Independence along with general education there has been a drive to introduce the nation’s children to the country’s cultural heritage from the primary level. It is said that every student should engage in some kind of art or some special skill alongside their studies and sports which enables them to apply those skills in their future life and profession. Not only to earn money but to experience the joy of creating something productive with their own hands and also learn to respect labour.

Through Art, Creativity, Aesthetics and folk art it is easy to create a bridge of communication amongst human beings. Thus it is important to induce art education from childhood so that it grows with and within him and there is a gradual development in his personality.

The audible range is within 20 hertz and 20,000 hertz. The range below 20 hertz is infra sonic and above 20,000 hertz is ultra sonic.

All tunes and notes are created within this audible range. Various combination of tunes is Music. Rhythm is the basic of music.

Music can not be divided but can be categorized into various Raagas and types. Music is a well edited, five sound art which has evolved with time. ‘Saama Keda’ is considered as the origin of Indian Music. But there is a contradiction to this belief as even during the Dravidia civilization, language and music prevailed.

There is immense versatility in Indian Music – various kind of folk music, classical Music, pop Music and Music based on the occidental trend. They all enrich Indian Music. One can not say when Indian classical Dhrupad Music started but during the time of Raja Man Singh of Gwalior Indian classical Music evolved in a new form.

What is performing art

“Music, dance, drama, folk theatre or puppetry our country India, had all of it in abundance. Oh! somebody playing the Dhol (music instrument) and there is music, we run to see what it is. Well, it is Lohri which is normally held on 13th January every year in the Northern part of our country. People are singing and dancing with a lot of enthusiasm. These dances are called Bhangra and Gidda in Punjab. These songs and dances portray the various stages in our lives. They reflect the socio-religious customs and practices of rural people earlier, but now are a part of modern city culture also. No school programme is complete

without them. They are linked through centuries of celebration and might have started with fertility rites to obtain prosperity for the agricultural community i.e. fertility of land and cattle but also of birth and survival of children. There are many reasons for celebration that it is difficult to list them. Why don't you make a list of these activities and find out how and why people celebrate them. You will not only find this activity interesting but you will be unable to put a full stop to it. Do you know why? Because the number is so large that you will never be able to know all the music, dance and drama that our country has. India is a land of rich culture and heritage. Since the beginning of our civilization, music, dance and drama have been an integral aspect of our culture. Initially, these art forms were used as medium of propagation for religion and social reforms in which music and dance were incorporated to gain popularity. From the Vedic era to the medieval period, the performing arts remained an important source of educating the masses. The Vedas laid down precise rules for the chanting of Vedic hymns. Even the pitch and the accent of singing different hymns have been prescribed. There was more of exemplary presentation through them than education or social reforms. Presently, these art forms have become means of entertainment for people all over the world.”- Indian culture and heritage

“What is an art? “Art is an expression of all characteristics of the human mind aesthetically”.

The different human emotions, are known as ‘RAS’ which signifies the ultimate satisfaction of ‘aanand’. Human emotions can be categorized into nine sub-headings or ‘navras’. They are:

1. Hasya — laughter
2. Bhayanak — evil Shringar — aesthetics
3. Rudra — chivalrous
4. Karun — pathos
5. Vir — courage
6. Adbhut — astonishing
7. Vibhatsa — terrifying glory
8. Shaanti — peace
9. Shringaar — decorating one's self

Art reflects human emotions and human spontaneously express their frame of mind through various art forms. Thus the intellectual mind merges with the artistic streak, giving birth to arts. The expression is reflected in various styles like singing, dancing, drawing, painting, acting, sculpture. Some of these are expressed through live performances and others through visual arts. Sketching, painting, sculpture are visual arts and attributes of performing arts. Music from time immemorial has been the most popular art form of India. They are Sa, Re, Ga, Ma, Pa, Dha, Ne. Performing arts are often a core curriculum area in education and seeks to expose students to ways to “express ideas and emotions that they cannot express in language alone”. The curriculum needs to be sequential, from preschool to high school, to develop “students’ skills and understanding of creating, performing, and responding”, to “promote knowledge and understanding of the historical and cultural contexts of the arts” and provide opportunities for students to make connections among the arts, with other disciplines within the core curriculum, and with arts resources in the community.

1.4 Music

Introduction: Music is found in every known culture, past and present, varying widely between the times and places. Since all people of the world, including the most isolated tribal groups, have a form of music. It may be concluded that music is likely to have been present in the ancestral population prior to the dispersal of humans around the world. Consequently music may have been in existence for at least 50,000 years and the first music may have been invented in Africa and then evolved to become a fundamental constituent of human life.

A culture's music is influenced by all other aspects of that culture, including social and economic organization and experience, climate and access to technology. The emotions and ideas that music expresses, the situations in which music is played and listened to, and the attitudes toward music players and composers all vary between regions and periods.

1.4.1 What is Music?

Music is an united composition of Geet, badya and dance.

Music is derived from the Greek word Muse. It is said that Muse is the daughter of Greek God Zeus and Goddess Mnemosyme. These were the people who have implied the poem and singer, as a result of that Music is derived.

Naturally, it is an old imaginative story. In other way we may say that if an object collides with another object then it creates a sound and the object that is being hit shows a shake in its nucleus. The air around this shake is also shaken. That shaken wave of air gets inside our brain through our ears and we feel the sound. Only those sounds are audible to normal humans which have a frequency within the range of 20-20,000 Hz.

It is this severe quaking that gives birth to a tune. A series of tune makes a rhythm and it is this rhythm (Tal) which is the principal component of Music.

Music is classified based on the Ragas mainly. Music is a well-crafted and delicate sutllenote which has evolved over time. The source of Indian Music is 'samaveda'. However difference of opinion exists regarding this topic as prior to vedic civilization these were traces of music existing within the Arya, Dravidian civilization.

1.4.2 Different Stream of Indian Music :

There is great diversity in Indian music. It is enriched in different type of folk sangeet like dhrupadi, favourite hit songs and Western music. Bharatiya dhrupad started when and where no one can say it certainly but Indian dhrupad started in new form in the time of Raja Mansinhgha, king of Gwalior.

Hindustani and South Indian (Karnatak) are the two different wings of Indian music. The entire Indian civilization, Language, culture everything has its own influence on the diversity of Hindustani and Karnataka Sangeet.

The reign of Alauddin Khilji and Akbar are memorable to us because of the creative diversity in north-Indian sangeet. Pandit Amir Khasru started a new type of song called "Kawalu" created by mixing Parsi and Indian music in the reign of Alauddin Khilji and darbari sangeet started during Akbars' reign.

Khayal : “khayal” is an Arabic word. It means willfulness or indisciplined thought. Probably, the khayal singer used to sing this in a satirical manner at the very beginning when it was introduced publicly. Khayal is the modern genre of classical singing in North India. Its name comes from an Arabic word meaning ‘imagination’. It is thought to have developed out of the qawwali singing style. It appeared more recently than dhrupad, is a more free and flexible form, and it provides greater scope for improvisation. Like all Indian classical music, khayal is modal, with a single melodic line and no harmonic parts.

The modes are called raga, and each raga is a complicated framework of melodic rules. Khayal bases itself on a repertoire of short songs (two to eight lines); a khayal song is called a bandish. Every singer generally renders the same bandish differently, with only the text and the raga remaining the same. Khayal bandishes are typically composed in a variant of Urdu/Hindi, and sometimes in Persian, Marathi or Punjabi and these compositions cover diverse topics, such as romantic or divine love, praise of kings or gods, the seasons, dawn and dusk, and the pranks of Krishna, and they have symbolism and imagery. The bandish is divided into two parts – the sthayi (or asthayi) and the antara, with the former considered more important and as it shows the melodic contours of the raga. The sthayi often uses notes from the lower octave and the lower half of the middle octave, while the antara ascends to the tonic of the upper octave and beyond before descending and linking back to the sthayi. The singer uses the composition as raw material for improvisation, accompanied by a harmonium or bowed string instrument such as the sarangi or violin playing off the singer’s melody line, a set of two hand drums (the tabla), and a drone in the background. The role of the accompanist playing the melody-producing instrument is to provide continuity when the singer pauses for breath, using small variations of the singer’s phrases or parts thereof. While there is a wide variety of rhythmic patterns that could be used by the percussionist.

Bhajan : “Bhajan” is mainly devotional song. The origin of ‘Bhajan’ or devotional songs is mainly dependent on two thoughts. The first one is spirituality or prayer of God. The poet of this type is known as saint. Kabir das is one of the famous poet of this type. The second one is devotional poet. This type of Bhajan singer are known as devotional poet. Rajput lady Meerabai is an example of this type.

Dhrupad: Dhrupad is an old style of singing, traditionally performed by male singers. It is performed with a tambura and a pakhawaj as instrumental accompaniments. The Lyrics, some of which were written in Sanskrit centuries ago, are presently often sung in Brajabbasha, a medieval form of North and East Indian Languages as that was spoken in Eastern India. The rudra veena, an ancient string instrument, is used in instrumental music in dhrupad.

Dhrupad music is primarily devotional in theme and content. It contains recitals in praise of particular deities. Dhrupad compositions begin with a relatively long and acyclic alap, where the syllables of the following mantra are recited. The great musician Tansen sang in the Dhrupad style. Later, especially Dagar family have led to its revival and eventual popularization in India and in the West.

Dhamar: Dhamar is one of the talas in Hindustani Classical Music. It is associated with the dhrupad style and typically played on the pakhawaj. Dhamar tala has 14 beats (matras) grouped asymmetrically into a 5-2-3 pattern. A lighter form of Dhrupad is called Dhamar. The text of a dhamar concerns the acts of Krishna

teasing the milkmaids during the Holi, spring festival of colours. It is considered a relatively light and romantic musical form. It is considered a relatively light and romantic musical form.

The theka or syllabic pattern of Dhamar tala is:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	1
k	dhi	T	dhi	T	dha	-	G	dhi	N	Dhi	N	Ta	K	K
×				×		×				×				×

In counting out the beat, beats 1,6 and 11 are clapped (tali) and beat 8 is indicated by a wave of the hand (Khali).

Tappa : Tappa is a form of Indian semi-classical vocal music. Its specialty is its rolling pace based on fast, subtle and knotty construction. Its tunes are melodious, sweet and depict the emotional outbursts of a lover. Tappe (plural) were sung mostly by songstresses, known as Baigees, in royal courts. Tappa originated from the folk songs of the camel riders of Punjab, the Tappa style of music was refined and introduced to the imperial court of the Mughal Emperor Muhammad Shah. And later on by Mian Ghulam Nabi Shori or Shori Mian, a court singer of Asaf-Ud-Dowlah, Nawab of Awadh. In Bengal, Ramnidhi Gupta composed Bengali tappe and they are called as Nidhu Babu’s Tappa. Tappa gayaki took new shape and over decades became puratani, a semi-classical form of Bengali songs. Tappa, as a significant genre in Bengali musical styles, reached levels of excellence in lyrics and rendition (gayaki), arguably unmatched in other parts of India.

Thumri : Thumri is one of the most important forms of North Indian music after khayal. The word thumri comes from thumka which means a nimble beat of the foot or walking with a dancing pace. This has link with the classical dance form Kathak. Thumri arose in popularity during the 19th century in the Lucknow court of nawab Wajid Ali Shah. Unlike the khayal, which pays meticulous attention to unfolding a raga, thumri restricts itself to expressing the countless hues of shringar by combining melody and words. Thumri is quicksilver in tone and ardently romantic in spirit. It needs a delicate heart, and a supple and soulful voice capable of expressing several shadings and colours of tones to bring out its beauty.

Ghazal : The ghazal is a poetic form consisting of rhyming couplets and a refrain, with each line sharing the same meter. A ghazal may be understood as a poetic expression of both the pain of loss or separation and the beauty of love in spite of that pain. The form is ancient, originating in Arabic poetry in Arabia long before the birth of Islam. The term Ghazal is of North African and Middle Eastern origin. Its root term in Arabic is “gh-zl” and is derived from the Arabian panegyric qasida. The structural requirements of the ghazal are similar in stringency to those of the Petrarchan sonnet. In style and content it is a genre that has proved capable of an extraordinary variety of expression around its central themes of love and separation.

The ghazal spread into South Asia in the 12th century due to the influence of Sufi mystics and the courts of the new Islamic Sultanate. Although the ghazal is most prominently a form of Dari poetry and Urdu poetry, today it is found in the poetry of many languages of the Indian sub-continent.

Two different methods of Indian music

The two main traditions of Indian classical music are Carnatic music, which is found predominantly in the peninsular regions, and Hindustani music, which is found in the northern, eastern and central regions. The basic concepts of this music includes Shruti (microtones), Swaras (notes), Alankar (ornamentations), Raga (melodies improvised from basic grammars), and Tala (rhythmic patterns used in percussion). Its tonal system divides the octave into 22 segments called Shrutis, not all equal but each roughly equal to a quarter of a whole tone of Western music.

The Hindustani music tradition diverged from Carnatic music around the 13th - 14th centuries AD. The practice of singing based on notes was popular even from the Vedic times where the hymns in Sama Veda, an ancient religious text, were sung as Samagana and not chanted. Developing a strong and diverse tradition over several centuries, it has contemporary traditions established primarily in India but also in Pakistan and Bangladesh. In contrast to Carnatic music, the other main Indian classical music tradition originating from the South, Hindustani music was not only influenced by ancient Hindu musical traditions, historical Vedic philosophy and native Indian sounds but also enriched by the Persian performance practices of the Mughals. Classical genres are Dhrupad, Dhamar, Khyal, Tarana and Sadra, and there are also several semi-class.

Naad

Dwani (Sound) — There are two types of Dwani, melodious and harsh. The sound is created by regular shaking of the voice. This is called Naad. There are two kinds of Naad — Ahahat Naad and Anahata Naad.

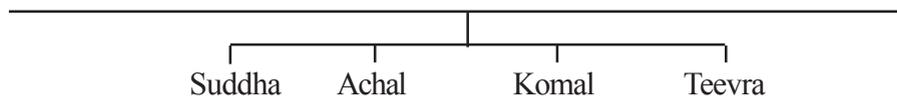
Shruti

The Swar (Tone) which produces a sence of pleasure is called Shruti. That is a sound lovely to hear. There are 22 kinds of Shrutis as mentioned below :

Teevra, Kumudbati, Manda, Chandabati, Dayabati, Ranjani, Raktika, Roudri, Krodhi, Bajrika, Prasarani, Priti, Marjani, Khiti, Rudra, Sandipini, Alapini, Madanti, Rohini, Ramya, Ugra and Khovini.

Swar

Selected Shrutis from 22 Shrutis which are used in the Raga is called Swar. Shruti or sruti (pronounced sruti) is a Sanskrit term, which in the context of Indian music, is the smallest interval of pitch that the human ear can detect. It has been used in several contexts throughout the history of Indian music. In the general sense Swara means tone, and applies to chanting and singing.



Suddha Swar

Sa, Re, Ga, Ma, Pa, Dha, Ni these are Suddha Swar.

Achal Swar

The notes Sharaja and Pancham are fixed on the scale. They are referred to as Achal Swar. (Immoveble)

Komal Swar

Sa, Re, Ga, Ma, Dha and Ni these are Komal Swar (Moveble)

Teevra

Only Madhyam can become bikrut by going on note above the Suddha Madhyam. It is called Teevra. It is shown by a small vertical line above the note.

Sharaja — Sa	Pancham — Pa
Rishav — Re	Dhaivat — Dha
Gandhar — Ga	Nishad — Ni
Madhyam — Ma	

In Indian Classic music 3 Saptaks (Octaves) are usually utilize.

Saptak — When the set of seven notes is played in the order it is called Saptak (Sa, Re, Ga, Ma, Pa, Dha, Ni).

Mandra Saptak — The one below the Madhya Saptak is called Mandra Saptak (low). Notes of this octave are sung in a low deeptone.

Madhya Saptak — The normal tone of human voices which is neither high nor low, it is called Madhya Saptak (middle Octave). This has got no symbol in the notation system.

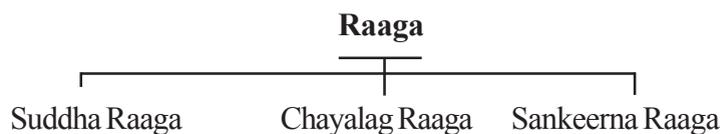
Taar Saptak — The one higher than Maddhya Saptak is Taar Saptak (high). The notes are high and sharp. This is shown by a dot above the note. Two dots above the note imply a note of an octave higher than the Taar Saptak.

Thaat

The set of seven notes or scale which can produce a Raaga. A Thaata also transliterated as Thaata is a mode in northern Indian or Hindustani music. Thaata always have seven different pitches (called Swara) and are a basis for the organization and classification of Raagas in North Indian classical music.

Raaga

Raaga is the backbone of indian classical music. According to Bhatkhande, each one of the several traditional Raagas is based on, or is a variation of, ten basic Thaats, or musical scales or frameworks. The 10 Thaats are Bilawal, Kalyan, Khamaj, Bhairav, Poorvi, Marwa, Kafi, Asavari, Bhairavi and Todi.



Terms describing the properties of Raaga.

Vaadi : The most prominent note of the Raaga which gets emphasized in the Raaga and used very often.

Samvaadi : The second most important note of the Raaga. This is fourth or fifth note from the Vaadi.

Anuvaadi : Other than Vaadi and Samvaadi notes in Raaga of the Raaga.

Vivadi : To enhance the beauty of the Raaga Vivadi note can be used. But this is done very rarely.

Aaroha : Ascend of the notes

ex : Sa, Re, Ga, Ma, Pa, Dha, Ni

Avaroha : Descend of the notes

ex : Ni, Dha, Pa, Ma, Ga, Re, Sa.

Pakad : A small group of notes which describe the unique features of the Raaga.

Jaati : Given the number of notes in Aaroha as well as the Avaroha of the Raaga.

Sthayee : First part of a composition.

Antara : Second part of the composition.

Samay : Each Raaga has a specific time when it can be performed. In Hindustani classical music each Raaga is rendered at a specific time as each Raaga with its particular Swar is more effective.

The 24 hrs of a day are divided into 2 parts.

1. From 12 am to 12 pm - This is called Poorva Bhaag and Raags sung in this period are called raaga.
2. From 12 pm to 12 am - This is called uttar Bhaag and the Raagas sung in this period are called utter Raags.

Taal

Taal is very important in practical music. Taal consist of different number of beats. Starting from 6 beats going up to 16 beats. The measurement of the duration of a sound is called Taal. There are two kinds of Taal — Samapadi and Bisamapadi.

Samapadi — The taal consist of the same number of Matras is called Samapadi Taal.

Ex - Kaharba.

Bisamapadi Taal — The Taal does not consist the same number of Matras is called Bisamapadi Taal. Such as — Teora.

Laya

The speed which a song is being sung is called Laya. There are Three types of Laya.

- Bilambita (delayed, slow), Madhya (midium tempo) and Druta (fast).

Matra

The smallest unit of a Taal is called Matras.

Tali and Khali

The first beat of any taal called Som, when learning and resiting the Taal the first beat of any bivhag is known as 'Tali' (Clap) and is accompanied by a clap of the hands while an 'empty' (Khali) bivhag is indicated with a sideways wave of a dominant clapping hand. In common notation the 'Som' is denoted by an 'x', and the Khali which is always the first beat of a particular bivhag denoted by '0' (zero)

Dadra - Beat —

1	2	3	4	5	6	Dha ¹
Dha	Dhin	Na	Na	Thun	Na	
x		0			x	

Matra - 6, Bibhag - 2. Three Matras in each group, One Tali and One Khali. Tali or Som in 1st Matra and Khali in fourth Matra. It is a Samapadi Tal.

Kaharba - Beat —

1	2	3	4	5	6	7	8	Dha ¹
Dha	Ge	Na	Ti	Na	K	Dhi	Na	
x		0		0			x	

Matra - 8, Bibhag - 2, four Matras in each group, One Tali and One Khali or Phank, Som in 1st Matras and Khali in fifth Matra. It is called Samapadi Tal.

Aktal (Threematrik) —

1	2	3	4	5	6	7	8	9	10	11	12	1
Dhin	Dhin	Dha	Dha	Thun	Na	Kat	Ta	Dhage	Tete	Dhin	Dhadha	Dhin
x		2			0				3			x

Matra - 12, Bibhag - 4, Three Matras in each group, Three Tali and One Khali or Phank. Som in 1st Matra and Khali in fourth Matra. It is a Samapadi Tal.

Aktal (Dwimatrik) —

1	2	3	4	5	6	7	8	9	10	11	12	1
Dhin	Dhin	Dhage	Tete	Thun	Na	Kat	Ta	Dhage	Tete	Dhin	Dhadha	Dhin
x		0	2	0		3		4		x		x

Matra - 12, Bibhag - 6, Two Matras in each group, four Tali and two Khali or Phank. It is a Samapadi Tal. Tali in first Matra, Five Matra, Nine and eleven. Khali or Phank in three and seven Matra.

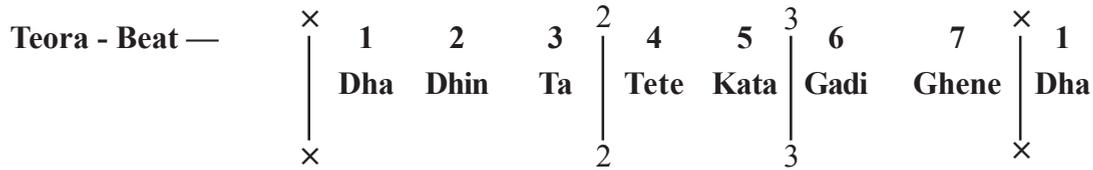
JhapTal - Beat —

1	2	3	4	5	6	7	8	9	10	Dhi
Dhi	Na	Dhi	Dhi	Na	Ti	Na	Dhi	Dhi	Na	
x		2		0		3			x	

TriTal beat —

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Dha
Dha	Dhin	Dhin	Dha	Dha	Dhin	Dhin	Dha	Na	Tin	Tin	Na	Tete	Dhin	Dhin	Dha	
x		2		0		3		3			x				x	

Matra - 10, Bibhag - 4, Three Talis and One Khali or Phank, Tali in first, Three and eight Matra and Khali or Phank in sixth Matra. It is Bsamapadi Tal.



Matra - 7, Bibhag - 3, It has no Khali or Phank, It is B-samapadi Tal.

Raag Vs Thaata

1. Thaats or scales are produced from 12 Swar Suddha, Komal, Teevra Raagas belong to the thaats.
2. There must be seven notes in a thaata. The Raaga must have minimum five notes.
3. In the Thaata the seven notes have to be in order but in the Raaga the notes can be in any order.
4. Thaata has only Aaroha (Ascending notes). The Raaga must have Aaroha (Ascending notes) as well as the Avaroha (Decending notes).
5. It is not necessary for a Thaata to be melodius. As the Thaats are not sung but the Raaga has to be melodius.
6. Thaata do not express a sentiment. A Raaga must express a mood.
7. Thaats do not have a Vadi or Samvadi. A Raaga has to have a Vadi and a Samvadi.
8. Thaats are named after a popular Raaga belonging to that Thaata.

1.4.3 Folk song

India has a rich legacy of folk or popular music. This music represents the emotion of the masses. The simple songs are composed to mark every event in life. They may be festivals, advent of a new season, marriage or birth of a child. Rajasthani folk songs such as Mand and Bhatiali of Bengal are popular all over India. Ragini is a popular form of folk songs of Haryana. Folk songs have their special meanings or messages. They often describe historical events and important rituals and the happenings of day to day life. Kashmir's Gulraj is usually a folklore and Pandyani of Madhya Pradesh is a narrative put to music. Muslims sing Sojkhwani or mournful songs during Muharram and Christmas carols and choral music are sung in groups on the festive occasions.

Salient features of Folk Songs:

- a) Folk music, type of traditional and generally rural music that originally was passed down through families and other small social groups.
- b) Typically, folk music, like folk literature, lives in oral tradition; it is learned through hearing rather than reading.
- c) It is functional in the sense that it is associated with other activities, and it is primarily rural in origin.
- d) The usefulness of the concept varies from culture to culture, but it is most convenient as a designation of a type of music of Asia and the India.

- e) The central traditions of folk music are transmitted orally that is, they are learnt through hearing rather than the reading of words or music, ordinarily in informal, small social networks of relatives or friends rather than in institutions such as school or church.

Various types of Folk song :

From the third century onwards, the Mouryas, the Guptas, the Palas, the Senas and the Muslims came one after another to rule the land. As a result, they grafted their ways of life and cultural traits on the indigenous population. Subsequently, Portuguese, French and English ships anchored in the harbors of Bengal. They left not only their merchandise but also their customs. Each race left its own mark and it was not only physical but also cultural, which collectively formed the basis of the culture.

Because folk literature is oral, it tends to rely on some mnemonic devices and patterns of language and style. Bengali Folk Literature includes different types of epic, poetry and drama, folktales, ballads, proverbs etc. and till now existing in community, whether literate or not may be in different form. The folklore of Bangladesh is heavily influenced by different races which were present years ago. The abundant folklore of the present-day Bangladesh, therefore, contains a variety of elements, which is partly to be explained by the historical forces.

The music of the **Bauls**, *Baul Sangeet*, is a particular type of folk song. Its lyrics carry influences of the Hindu bhakti movements and the *suphi*, a form of Sufi song exemplified by the songs of Kabir. Their music represents a long heritage of preaching mysticism through songs in Bengal, as in the Shahebdhoni or Bolahadi sects.

Bauls use a number of musical instruments: the most common is the *ektara*, a one-stringed “plucked drum” drone instrument, carved from the epicarp of a gourd, and made of bamboo and goatskin. Others include the *dotara*, a long-necked fretless lute (while the name literally means “two stringed” it usually has four metal strings) made of the wood of a jackfruit or neem tree; besides *khamak*, one-headed drum with a string attached to it which is plucked. The only difference from *ektara* is that no bamboo is used to stretch the string, which is held by one hand, while being plucked by another. Drums like the *duggi*, a small hand-held earthen drum, and *dhol* and *khol*; small cymbals called *khartal* and *manjira*, and the bamboo flute are also used. *Ghungur* and *nupur* are anklets with bells that ring while the person wearing them dances.

Bauls are found in the Indian state of West Bengal and the eastern parts of Bihar and Jharkhand and the country of Bangladesh. The Baul movement was at its peak in the 19th and early 20th centuries, but even today one comes across the occasional Baul with his *Ektara* (one-stringed musical instrument) and begging bowl, singing across the farflung villages of rural Bengal. Travelling in local trains and attending village fairs are good ways to encounter Bauls.

Every year, in the month of Falgun (February to March), “Lalon Smaran Utshab” (Lalon memorial festival) is held in the shrine of Lalon in Kushtia, Bangladesh, where bauls and devotees of Lalon from Bangladesh and overseas come to perform and highlight the mystics of Lalon.

Bengali folk songs are rich in variety. Different places have been responsible for producing their own songs the simple customs, festivals, religions, beliefs, passions have found an eloquent ventilation in the melodious soulful tunes of ordinary men and women. So these varieties of songs are rooted to the place, the people and their philosophy and way of life. They are the rich treasure to be zealously treasured by any nation. The dominant streams of folk songs:

Belongs to Chhotonagpur, Santhalpargana, Bankura, Purulia. This song is presented in accompaniment with music. Flute and madol (a kind of drum hanging from neck) are its musical instruments. Hard struggle of life, joys and pains, love and languishment are its essential ingredients.

DHAMAIL

It is basically familiar as a marriage song belonging to Srihatta and Bangladesh. It is a form of dance and song dominated by women.

Indian folk song is also well-known for its simplicity. Folk song is able to reduce the tiredness of daily work. Such as – Guahati, women used to sing ‘Ovi’ (one type of Kheyal Geeti) when they pulverize/pound the rice. The Maharastrians sing when they plough the field, the sea-song of Mumbai, ‘go-jan’ Sangeet of madras, Panihari Sangeet, of Rajasthan, Malabars sing while digging a well and hilly songs prove that Sangeet also help people to reduce their mental and physical strain, removes a person from tiredness and gives him/her an immense pleasure even then when he/she is in work.

There are some common features of folk song:

1. Folk songs are made / generated orally and spread all over the village orally – because no one thinks it is necessary to keep these songs in written form and the living essence of the songs remains through its onward continuity.
2. No country has the written rules and regulation about its folk songs.
3. It supplied spontaneous wordings of the peoples’ feelings. That is why loksangeet has no artificiality.
4. These songs are closely related with the village people.
5. Folk songs of Bengal – its subject feelings, flavour etc are very much enriched.

Regional Folk song :

1. Vadugan, tusu, ghetu, vouiya, sari, jari of east Bengal are the famous folk songs of West Bengal.
2. Premsangeet : this type of music is two types.
 - (a) Related to Radha and Sri Krishna .
 - (b) Besides this vatiali is one of the most acceptable premsangeet in east Bengal.

Baboharik Sangeet – generally marriage ceremony, roof laying, well digging or pond digging songs may take as example of this type.

3. **Anusthanik song:** generally this type of song is sung in social ceremonies or in the time of utsav. Ex: Songs that are sung of are Shiber Gazan, Holy- Song, Charak Song . The song that are sung during harvesting of Paddy Crops.
4. **Karma sangeet.** while doing a particular job then to reduce the work load a special type of song is sung. This is called karma songs, Like- Sari Gan it is sung while sailing the boat. There are so many of this type.
5. **Tusu gan :** In the border area of west Bengal specially in Purulia, Bankura, Burdwan, Birbhum, Jharkhand, Medinipur etc the ladies of these region worship Tusu and celebrates it by singing . Generally, Tusu is the goddess of ‘Aman’ Paddy. No Purohit is needed for Tusu the ladies themselves worship Tusu.
6. **Vadu Gan :** This type of song is also sung by the ladies who resides generally in the border areas – on Vadu Puja occasion. Among the Bengali people Vadu Gan is popular.
7. **Sari Gan :** These are sung in chorus while doing a job unitedly. Sari Gan a kind of folk song, sung especially by boatmen. It is often known as workmen’s song as well. The name *sari gan* is derived from the fact that boatmen or crew usually sit in a *sari* or row while singing such songs. It is also popular among workers as it redeems the tedium of work and keeps up the tempo.

These songs are usually sung by a male chorus. But in recent years, with women forming part of the workforce, women sing these songs as well. The performance is led by a *bayati* or lead singer, who sings the main part of the song and directs the refrain or chorus (*dohar*). Basically rhythmic by nature, such songs can be fast-paced or slow, depending on the strokes of the hammers. When these strokes are slow, the pace of the song is slow and when the strokes are fast, the pace of the song is automatically fast.

Since the main aim of sari gan is to encourage work, eliminate strain, and entertain workers, the subjects of such songs are very diverse: they may be about RADHA and KRISHNA or SHIVA and Parvati, as well as about human lovers or heroes. Their themes may be mystical, comic, or critical.

It is an example of karma sangeet. Another Karma sangeet are paddy harvesting song, roof laying song etc. These are sung in chorus while vatiyali in solo – one sung by the Majhee.

8. **Jari gan :** One type of Islamic Sacred Song. The Maymonsingha, Dhaka, Faridpur of East Bengal generally sing this song. Jari means crying. The heroic/valorous activity of Hasan-Hossein in Karbala and Sakinas’ crying is described through this song.
9. **Vatiyali :** Vatiyali is a solo song. It was started first in 15th century in Bengal, Mithila, Assam- now sing at Dhaka, Moymonsingha, Faridpur, Kumillya of Bangladesh also river, canel majhi-mallars’ song is Vatiyali. Bhatiali or *Bhatiyali* is a traditional form of folk music in Bengal, Bangladesh and West Bengal. Bhatiyali is a traditional boat song, sung by boatmen while going down streams of the river, as the word *Bhatiyali* comes from *Bhata* meaning ebb or downstream. It mostly is sung in the Mymensingh District along the Brahmaputra River or the *Bhati* (lower region of a river) area. Bhaitaili lyrics are traditionally about boating, fishing and rivers. Among

the 14 subject of folk music in Bangladesh, that includes *Deha-tatva* (about the body) and *Murshid-tatva* (about the guru), Bhatiali deals with *Prakriti-tatva* (about nature).

10. **Vouwaiya** : It is a traditional song of North Bengal. Rangpur, West Dinajpur, Coochbehar and Goalpara are the place where this type of song is sung. Bhawaiya is a musical form or a popular folk music in Northern Bangladesh, especially Rangpur District and in Cooch Behar, Jalpaiguri, part of Darjeeling and North Dinajpur district of West Bengal and Dhubri and Goalpara of Assam in India. These areas were covered by Kamtapur state and so for the song also Kamtapuri language is used. This folk song is sung traditionally both solo and by chorus.

There are various view point regarding the meaning of Bhawaiya. Low lying land with shrub and other vegetable are called *Bhawa*. Buffalo keepers used to sing this song while ploughing. Hence the name *Bhawaiya* came to exist. According to some other reasearcher *Bhawaiya* is derived from the word *Bawaiya* which is subsequently derived from the word *bao* (breeze). The derivative of the word *Bhawaiya* is Bhav > Bhao + Iya = Bhawaiya. So the derivative meaning of this word is *emotionally charged*. According to Abbas Uddin, famous singer and composer of Bhawaiya song, this song is like the random and pleasant wind blowing of North Bengal and it is named as Bhawaiya. According to a survey (conducted by the Folk cultural and tribal cultural centre, Government of West Bengal) among the performers of Bhawaiya song the name is derived from the word Bhao > Bhav. It has a meaning of deep feeling or love or melancholy feeling.

11. Gambhira – Another traditional one. The other name of gambhira is shib-sangeet'. Generaly, it is sung during Chaitra month. It is the main loko utsav of Malda district. Generaly, Poliya, Rajbanshi, Nagar, coach etc are heard in this song.
12. Ghetu songs were known for their traditional tunes, but what really set them apart were the Ghetu performers. Adolescent boys dressed as girls used to perform the songs.

1.4.4 Importance of music-education in elementary level

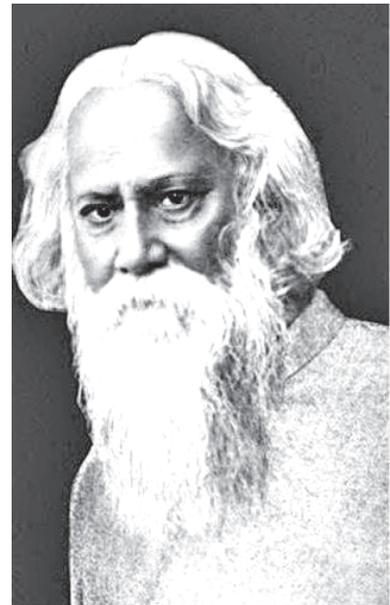
Music education is a field of study associated with the teaching and learning of music. It touches on all learning domains, including the psychomotor domain (the development of skills), the cognitive domain (the acquisition of knowledge), and in particular and significant ways, the affective domain (the learner's willingness to receive, internalize, and share what is learnt), including music appreciation and sensitivity. Music training from preschool to elementary level of education is common in most countries because involvement with music is considered a fundamental component of human culture and behavior. Music, like language, is an accomplishment that distinguishes humans as a species. "An education in music also increases overall brain activity. Research done at the University of Wisconsin has indicated that students with piano or keyboard experience performed 34% higher on tests that measure different lobe activity, which is the part of the brain that is used when doing mathematics, science, and engineering. " The human brain has been shown to be "hard-wired" for music; there is a biological basis for music being an important part of human experience.

“Music enhances knowledge in the areas of mathematics, science, geography, history, foreign language, physical education, and vocational training.” - William Earhart, former president of the Music Educators National Conference, Music not only inspires creativity and performance, but academic performance over all is seriously impacted. A research study produced by the Harris Poll has shown that 9 out of 10 individuals with post graduate degrees participated in music education. The National Report of SAT test takers study indicated students with music performance experience scored higher on the SAT: 57 points higher on verbal and 41 points higher on math. Schools that have high academic performance in the US are spending 20 to 30% of their budget in the arts with emphasis on music education

1.4.5 Some eminent musical personalities

Rabindra Nath Tagore : “When one knows thee, then alien there is none, then no door is shut. Oh, grant me my prayer that I may never lose touch of the one in the play of the many.” (from Gitanjali)

Rabindranath Tagore was born in Calcutta into a wealthy and prominent Brahman family. His father was Maharishi Debendranath Tagore, a religious reformer and scholar. His mother, Sarada Devi, died when Tagore was very young. . Tagore’s grandfather had established a huge financial empire for himself. The Tagores tried to combine traditional Indian culture with Western ideas; all the children of Tagore family contributed significantly to Bengali literature and culture. However, in *My Reminiscences* Tagore mentions that it was not until the age of ten when he started to use socks and shoes. And servants used to beat the children regularly. Tagore, the youngest, started to compose poems at the age of eight. His first book, a collection of poems, appeared when he was 17; and was published by Tagore’s friend who wanted to surprise him.



Tagore received his early education first from tutors and then at a variety of schools. Among them - were Bengal Academy where he studied history and culture. At University College, London, he studied law but left after a year as he did not like the weather. In England Tagore started to compose the poem ‘Bhagna Hridaj’ (a broken heart).

Tagore’s reputation as a writer was established in the United States and in England after the publication of *GITANJALI: SONG OFFERINGS*, about divine and human love.. Tagore won the Nobel Prize for Literature in 1913. Two years later he was awarded the knighthood, but he surrendered it in 1919 as a protest against the Massacre of Amritsar, where British troops killed some 400 Indian demonstrators.

Much of Tagore’s ideology comes from the teaching of the Upahishads and from his own beliefs that God can be found through personal purity and service to others. He stressed the need for new world order based on transnational values and ideas, the “unity consciousness.” He was also a composer, settings hundreds of poems to music. Many of his poems are actually songs, and inseparable from their music. Tagore’s ‘Our Golden Bengal’ became the national anthem of Bangladesh. He died on August 7, in 1941.

What Rabindranath was doing in literature he also tried to do in music. While caring for both the traditions, classical and folk, he respected the inviolable sanctity of neither and freely took from each what suited his purpose. He was not even averse to borrowing from western melodies, although he did very little of that and made his own whatever he took from other sources. If his creative contribution in music has not received the same recognition as his contribution in literature, it is because, in the first place, the classical tradition of music in India, unlike that of literature, is still very alive and vital and there was no vacuum to be filled. Rabindranath's early training in music was deeply influenced by the Bishnupur gharana. He grew up listening, learning and absorbing the dhrupad and khayal traditions from stalwarts like Bishnu Chakraborty, Jadu Bhatta, Radhika Goswami, Srikantha Singha. His elder brother, Jyotirindranath used to experiment with the traditional dhrupad and khayal compositions and encouraged young Rabi to compose verses to match such raga-based melodies. This was how 'Rabindrasangeet' took its early form. Tagore's early compositions thus were 'shuddh', true to the raga and tala systems of dhrupad, dhamar, tappa and sadra. Much like dhrupad, the verses and mood of his songs during this phase were solemn and often dealt with prayer and devotion. It inevitably evolved into a more complex phase where Rabindranath introduced novelty and improvisations, still within the structure of traditional Hindustani music. The variety and diversity in his poetry compelled him to break away from the norms. This was a phase of intense creativity and experimentation where vast combinations of ragas and talas evolved to create a suitable medium for the varied moods and emotions. His creation transcended beyond mere imitation. In Tagore's own words, "From early childhood, Hindustani music has filled my ears and mind . . . but, (while composing) mere imitation will result in a shipwreck . . ." Tagore was a prolific composer with 2,230 songs to his credit. His songs are known as *Rabindrasangit* ("Tagore Song"), which merges fluidly into his literature, most of which—poems or parts of novels, stories, or plays alike—were lyricised. Influenced by the *thumri* style of Hindustani music, they ran the entire gamut of human emotion, ranging from his early dirge-like Brahmo devotional hymns to quasi-erotic compositions. They emulated the tonal color of classical *Ragas* to varying extents. Some songs mimicked a given raga's melody and rhythm faithfully; others newly blended elements of different *ragas*. Yet about nine-tenths of his work was not *bhanga gaan*, the body of tunes revamped with "fresh value" from select Western, Hindustani, Bengali folk and other regional flavours "external" to Tagore's own ancestral culture. Scholars have attempted to gauge the emotive force and range of Hindustani *ragas*: the pathos of the *purabi raga* reminded Tagore of the evening tears of a lonely widow, while *kanara* was the confused realization of a nocturnal wanderer who had lost his way. In *bhupali* he seemed to hear a voice in the wind saying 'stop and come hither'. *Paraj* conveyed to him the deep slumber that overtook one at night's end. In fact Rabindranath did not attempt creation of new forms in abstract music. What he did was to bring it down from its heights and make it keep pace with the popular idiom of musical expression. In the second place, his own music is so inextricably blended with the poetry of words that it is almost impossible to separate the mood from the words and the words from the tune. Each expresses and reinforces the other.

In Bengal, however, each change of season, each aspect of his country's rich landscape, every undulation of human heart, in sorrow or in joy has found its voice in some song of Rabindranath. They are sung in religious gatherings no less than in concert halls. Patriots have mounted the gallows with his song on their lips; and young lovers unable to express the depth of their feelings sing his songs and feel the weight of their dumbness relieved.

Rajanikanta Sen : Rajanikanta was born in the village of Bhangabari, Pabna (present-day Bangladesh). He was the third child of Guruprasad Sen and Manomohini Devi. Guruprasad served as sub-judge in many parts of Bengal. Guruprasad was posted in Katwa when Rajanikanta was born. Guruprasad’s elder brother, Govindanath, was a successful advocate. However, much of the family wealth was unwisely invested, and Rajanikanta faced increasing poverty throughout his life. His mother Manomohini was a competent housewife. Rajani studied in Boalia Zilla School (now Rajshahi Collegiate School). He was a very mischievous and playful child. Though he spent less time for his studies, yet he scored well in all his examinations. He has later mentioned in his diary. “I was never a book-worm, for I was blessed with very brilliant parts.”



He learnt Sanskrit from Rajnath Tarkaratna, a neighbour in his village Bhangakuthi during school vacations. Rajani got Gopal Chandra Lahiri as his academic mentor. He passed entrance examination in 1882 with second division and got rupees ten per month as stipend. He passed FA in 1885 with second division and joined City College. He completed Bachelor of Arts degree in 1889 and Bachelor of Law degree in 1891 from the same college. Rajani’s mother Manomohini Devi had interest in Bengali literature. She used to discuss about it with young Rajani. This influenced his future compositions a lot. Rajani also imbibed a deep interest in music from Tarakeshwar Chakrabarty, his friend in Bhangakuthi, who was good in singing,

He was fluent in writing poems in Bengali and Sanskrit from childhood. He started composing music for his poems and singing those along with playing musical instruments later. Rajani’s poems were published in local magazines – Utsaha, Ashalata many times. He used to compose songs for inaugural and closing ceremonies for various assemblies in his college days. He wrote his very famous song within a very short period of one hour for such an assembly in Rajshahi library: *Beneath your feet lies the prosperous and bountiful earth Behold the blue sky engraved with countless gems above She is like a sweet and graceful angel”*

There was an assembly in Calcutta townhall on 7 August 1905 for protesting against Partition of Bengal. Boycott of British goods and using Swadeshi (Indian) items were decided by eminent Bengali leaders. Indian common men started using clothes manufactured in India (Ahmedabad and Bombay mainly). However those were not so fine as compared to British ones. This made some of the Indians unhappy. In this context Rajani wrote his famous song:

My brothers, please accept the coarse clothing offered by your mother As this is all your poor mother(nation) can afford

Rajani’s major contribution towards Bengali literature and music was the immortal devotional songs which were written and composed by him. His songs were set to Hindustani classical style, mixing Kirtan, Baul and Tappa. He was also influenced by humorous/ satirical poems written by Dwijendralal Ray and wrote many of similar types. He became well known as Kantakabi and his songs are often called Kantageeti. Rajani’s major contribution towards Bengali literature and music was the immortal devotional songs which were written and composed by him. His songs were set to Hindustani classical style, mixing Kirtan, Baul

and Tappa. He was also influenced by humorous/ satirical poems written by Dwijendralal Ray and wrote many of similar types. He became well known as Kantakabi and his songs are often called Kantageeti. In 1909, Rajanikanta started suffering from throat problems. On 10 September of the same year he was forced to move to Calcutta along with some family members despite very stringent financial conditions. A British doctor examined him and diagnosed it as Larynx cancer. He consulted various eminent doctors in Calcutta but his condition did not improve. As a last resort, he spent a couple of months in Varanasi with the hope of divine intervention. With a very heavy heart he had to sell off copyrights of his published books Vani and Kalyani to arrange for the trip. He had to return to Calcutta as his condition had worsened much. He underwent Tracheotomy operation by Captain Denham White on 10 February 1910 in Calcutta Medical College. He survived the operation but lost his voice forever. He spent the remaining days of his life in the Cottage Ward of the hospital. He used to write in his diary quite regularly during his stay in the hospital. He also started writing autobiography which was written only up to the first chapter. Some poetry lovers and some of the students of the Calcutta Medical College tended after him, Maharaja Manindra Chandra Nandi and Sharat Kumar Ray helped him financially. On 11 June 1910 Rabindranath Tagore visited the hospital to meet Rajani. Rajani's son Kshitindranath and daughter Shantibala sung a song composed by Rajani and he accompanied by playing a Harmonium. Rajani believed that God inflicted the pain upon him for the purification of his soul. This belief gave him the inner strength to forget the physical pain temporarily and immerse himself in the composition of songs. This is reflected in the following song composed on the day Rabindranath met him:

I am impoverished by all means, my pride shattered, I am devoid of fame, riches and my complete well being. I was disillusioned and had descended into the dungeon of pride; His kindness has lifted the obstacles and humbled me.

Kazi Najrul Islam : Kazi Nazrul Islam was born on May 24, 1899 in a very poor family at the village of Churulia in Burdwan district of West Bengal. He lost his father at the age of nine. At the age of 10, after passing through the lower primary examination, he started teaching in a religious school with a view to assisting his family financially which was in utter poverty. He also served as the khadem of a mazar, the imam of a mosque and even as a mullah.



There was nothing in his life from which one could have the slightest inkling of how this poor boy, living in an insignificant village, would one day grow up to increase the horizon of not only the Bengali literature but of the whole Indian sub-continent as well. He brought the harsh reality of the life of the common man to literature. For the first time he introduced a hitherto uncommon theme of identification of self-interest of the people through the mass movement against all kinds of oppression in the social life. The most remarkable thing about his work was that he wrote a large number of songs, setting almost all of them to a tune and established himself as one of the greatest lyricists and composers of the sub-continent.

His creative life was spread over a period of a little over 22 years from March 1920 to July 1942. After a sudden attack of paralysis on July 10, 1942, he became silent for ever and spent as such a further spell of 34 years of his life before he ultimately died on August 29, 1976 at the age of 77.

In 1910, he joined the Leto group that used to perform music, dance and drama for the recreation of the rural people. At that time he was studying in class V. After coming out of school in 1912-13, he joined the Kabi troupe of Basudeva for a short period, then served as the cook to a railway guard and was an apprentice with a baker's shop. In 1914, under the guardianship of Kazi Rafizullah, a police sub-inspector, he went to Darirampur in Mymensingh and got himself admitted in a school there in class VII. He studied in Shiarsol Raj School from class VIII to X.

He was a poet, short story writer, speaker, newspaper editor, a film actor, a freedom fighter and a political worker. The history of our country will undoubtedly reminisce him in every such roll with due importance. But the single and the most important aspect of his many-faceted genius which gave him widespread fame and name was of a fine lyricist and a musician with many new ragas and talas to his credit. Over the next 22 years after returning to Calcutta he wrote over 2,680 songs. Critics believe that a number of his songs are yet to be discovered and some are totally lost.

The mainstream of his musical emotion was evidently classical. He was deeply engrossed and inspired by the totality of the raga style. In 1940 he talked on the radio about his feelings on this point thus: 'It is not possible for the modern tunes with their monotonous frivolousness to create the exquisite rasa which may be created by the classical music and which may carry away the mind of the people to the world of an experience that is magnificent and superb'. From this thought, he transformed the stream of classical music into a dominant one in the Bengali music world. Some of his songs based on some well-known Hindustani bandish are replete with exquisite poetic beauty, being freed from insignificant wordings of the original songs. Nobody has successfully adapted such a large range of musical styles prevalent in North India like Dhrupad, Khayal, Tappa, Thumri and Dadra along with Kajri, Chaiti, and Rasia.

During the last phase of his creative life, he retrieved many lost and nearly-lost ragas and wrote Bengali songs composed in these ragas. He created 17 new ragas and wrote songs based on them. He also created 11 new talas. He composed six Lakshangeets with double meanings attributed to each by one meaning, the song would appear to be a fine poetic piece, by another it is a description of the characteristics of the raga on which its composition is based.

In the Bengali music world no other lyricist or composer has used so many ragas. Their number would run into about 200.

A special category of songs on awakening, patriotism and struggle for freedom from oppression was introduced by Nazrul. His songs on communal harmony, socialistic inspiration and economic freedom are worth a special mention. His song 'Durgama giri kantara maru' written in 1926 still remains unparalleled in its lyric, tune, and aesthetic excellence among songs of this category written till now. Nazrul also successfully introduced the Bengali ghazals which were readily accepted by the listeners. In this area he has no successor so far.

In the category of devotional and religious songs, Nazrul has numerous compositions to his credit. The first group consists of Islamic songs for which he was the pioneer. The deeply emotional and charming tunes have made such songs the most adored ones not only to the Muslims but also to the Hindu listeners. The second as well as the most dominant group consists of Hindu religious songs. Despite being a Muslim by birth, he created several Bhajans, Shyamasangeets, Agamanis, Kirtans and also a large number of songs on invocation to Shiva, Lakshmi and Swaraswati and on the theme of love of Radha and Krishna.

Nazrul was one of the founders and the most important composers of Bengali modern songs too. Modern songs are composed in a free style which is not related to any of the specific genres like Dhrupad, Khayal, Tappa, Thumri, Ghazal, Kirtan or even to western style.

His songs based on Baul, Jhumur, Santhali folksongs, jhanpan or the folk songs of snake charmers, Bhatiali and Bhaoaia consist of tunes of folk-songs on the one hand and a refined lyric with poetic beauty on the other. This makes them a favourite with the listeners. Kazi Nazrul Islam had a strong confidence that even if there were no discussions on his contribution to the music world in his lifetime, all would recall him in future.

Famous Songs

1. *Amra shakti amra bol amra chhatradal*
2. *Durgam giri kantar maru duster parabar*
3. *Bagichay bulbuli tui*
4. *Mora eki brinte duti fool, hindu musulman*

Dwijendralal Roy : A great poet, playwright and lyricist, was born on 19 July 1863 at Krishnanagar in Nadia district, where his father, *Kartikeya Chanddra Roy*, was the dewan. His mother, Prasannamayee Devi, was a descendant of Adwaita Prabhu. Dwijendralal graduated in arts from Hughli College in 1883 and obtained his MA degree in English from Presidency College a year later.



He then travelled to London where he obtained the FRAS in agriculture and the MRAC and MRAS from the Royal Agriculture College and Agricultural Society. Returning to India he received training in survey and revenue assessment in Madhya Pradesh and was appointed a deputy in the government. He was later appointed a deputy magistrate in Dinajpur. In 1890, while serving as a settlement officer at Sujamuta pargana in Burdwan estate, he came into conflict with the governor on the issue of peasants' rights.

In 1905 Dwijendralal established a literary society, Purnima Milon, in Kolkata. He became the editor of the monthly BHARATVARSA in 1913. Dwijendralal had a literary bent of mind and started writing poems while still in his teens. While still a student he wrote Aryagatha (part 1, 1882). During his stay in England he wrote The Lyrics of Ind in 1886. Among his other books are collections of poems and songs: Aryagatha (part 2, 1894), Hasir Gan (1900), Mandra (1902), Alekhya (1907), and Triveni (1912). His sketches and satires include Ekghare (1889), Samaj Bibhrat O Kalki Avatar (1895), Tryahasparsha (1900), Prayashchitta (1902), and Punarjanma (1911). He also wrote plays, many of which are included in university syllabi. Among his mythical plays are Pasani (1900), Sita (1908) and Visma (1914). His social plays include Parapare (1912) and Banganari (1916). He also wrote a number of historical plays: Tarabai (1903), Rana Pratapsingh (1905), Mebar Patan (1908), Nurjahan (1908), Sajahan (1909) and Chandragupta (1911). Most of his plays were successfully staged in Kolkata and elsewhere. He is specially remembered for his historical plays. He was also a well-known composer of modern songs; dwijendragiti still form a regular feature of radio and television programmes. He died on 17 May 1913 in Kolkata.

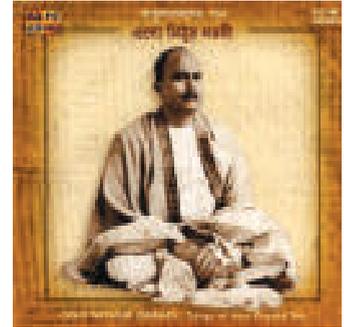
Dwijendralal Roy, also known as **D. L. Roy** was a Bengali poet, playwright, and musician. He was known for his Hindu mythological and Nationalist historical plays and songs known as Dwijendrageeti or

the Songs of Dwijendralal, which number over 500, create a separate subgenre of Bengali music. Two of his most famous compositions are Dhana Dhanya Pushpa Bhara and Banga Amar Janani Amar. He is regarded as one of the most important figures in early modern Bengali literature.

Famous Songs

- *Aji Gao Maha Geet*
- *Banga Amar Janani Amar* (patriotic)
- *Dhana Dhanya Pushpa Bhara* (patriotic)
- *Je Din Sunil Jaladhi Haite* (patriotic)
- *Patitadwarini Gangey* (patriotic)

Atulprasad Sen : Atulprasad Sen (20 October 1871 – 26 August 1934) was a Bengali composer, lyricist and singer. He is principally remembered as a musician and composer. His songs centred on three broad subjects- patriotism, devotion and love. The sufferings he experienced in his life found their ways into his lyrics; and this has made his songs full of pathos.



Atulprasad is credited with introducing the Thumri style in Bengali music. He also pioneered Ghazals in Bengali, composing about 6 or 7 ghazals.

Atulprasad Sen was born in a Vaidya-Brahmin family hailing from the village Magor in South Bikrampur, Faridpur. He was born in his maternal uncle's house in Dhaka (as was the custom at that time). His father died when he was a toddler. Atulprasad was raised by his maternal grandfather renowned Brahma social reformer Kalinarayan Gupta, who initiated him in music and devotional songs. Atul Prasad's mother Hemantasashi Sen, later remarried to prominent Brahma Samaj reformer Durga Mohan Das.

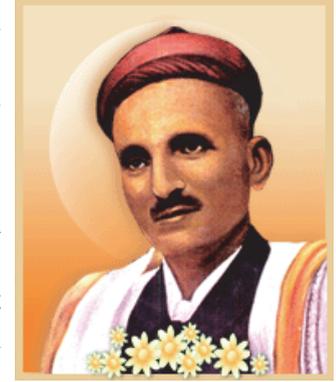
In 1890, Atulprasad passed the Entrance examination. Next, he studied at Presidency College in Kolkata, and then went to London to study law. After successfully becoming a lawyer, he returned to Bengal, and opened up a law practice in Rangpur and Kolkata. Later he moved to Lucknow, where he became the president of the Oudh Bar Association and the Oudh Bar Council.

Atulprasad practised law in Lucknow, from 1902 to 1934. Lucknow played a important role in Atulprasad's Musical creation and experiments. At this time, he used to hold musical soirees almost every evening at his residence where maestros like Ahammad Khalif Khan, Chhotey Munne Khan, Barkat Ali Khan and Abdul Karim used to sing. Engrossed in such musical sessions, he used to forget to attend his clients. He wrote most of his songs during his residence in Lucknow. He was able to internalise the Hindustrani rendition style well since he lived almost half his life in northern India. Sush exposer let Atulprasad to introduce the raga-based Bangla songs soecially the thungri in Bangla music. The thungri style was originally the creation of the noted musician, Nawab Wajed Ali Shah of Lucknow. Atulprasad adapted the Hindustani style to fit Bangla songs, without distorting their tune and measure. He added a new dimension to Bangla songs and opened the way for further experiments. Atulprasad used fast-paced Hindustani tunes like kheyal, thungri and dadra skilfully. Although some have criticised his attempt to blend Hindustani tunes with Bangla songs, he has been able to add an element of spontaneity on occasions when the tune has transcended the lyrics. His songs based on thungri and dadra have considerable artistic merit. Examples of such songs

are ki ar chahiba balo (What more shall I ask for?/ Bhairabi/tap kheyal), ogo nithur daradi (O the merciless/ mixed Ashabari-dadra/tap thungri), yaba na yaba na ghare (I won't go home/ thungri), etc. His raga-based songs include bandhu dhar dhar mala (o my friend, take the garland/ kalingda), tabu tomay daki bare bare (Yet I call you/ Sindhu Kafi) continue to stir people. Atulprasad's introduction of the raga to the Bangla songs has had a significant impact on our music, and has influenced the songs of Kazi Nazrul Islam and other raga-based modern songs. Atulprasad died in Lucknow on 26 August 1934.

Pandit Vishnu Narayan Bhatkhande : (August 10, 1860 – September 19, 1936) was an Indian musicologist who wrote the first modern treatise on Hindustani Classical Music (The north Indian variety of Indian classical music), an art which had been propagated earlier for a few centuries mostly through oral traditions. During those earlier times, the art had undergone several changes, rendering the raga *grammar* documented in scant old texts outdated.

Ragas used to be classified into Raga (male), Ragini (female), and Putra (children). Bhatkhande reclassified them into the currently used Thaata system. He noted that several ragas did not conform to their description in ancient Sanskrit texts. He explained the ragas in an easy-to-understand language and composed several *bandishes* which explained the grammar of the ragas. He borrowed the idea of *lakshan geet* from the Carnatic music scholar Venkatamakhin.



Vishnu Narayan Bhatkhande was born in 1860 in Walkeshwar, Mumbai, Maharashtra. His father had great passion for music which motivated him to study music. At an early age he had mastered singing, veena and flute. He was educated at Elphinstone College in Mumbai and Deccan College in Pune. He graduated with a degree in Law in 1885 and joined the legal profession in 1887. Later he served a short stint as a lawyer in the High Court in Karachi.

During his college days, Bhatkhande began learning sitar playing from Vallabhdas. He later learned vocal music from Raojiba, a Dhrupad singer. He also trained in other aspects of classical music under Belbagkar, Ali Hussain Khan, and Vilayat Hussain Khan. He became a member of *Gayan Uttejak Mandali*, a musical circle in Mumbai, Maharashtra.

Bhatkhande traveled throughout India, meeting with ustads and pandits, and researching music. He began the study of ancient texts such as the *Natya Shastra* and *Sangeet Ratnakara*.^[2]

After the death of his wife and his daughter, Bhatkhande abandoned his legal practice and devoted the rest of his life to systematizing the prevailing forms of Hindustani music and building on that system a coordinated theory and practice of music. During his travels in India, he spent time in Baroda, Gwalior, and Rampur. In Rampur he was the disciple of legendary Veena Player Ustad Wazir Khan, the descendant of Miyan Tansen.

Bhatkhande's first published work, *Swar Malika*, was a booklet containing detailed descriptions of all prevalent ragas. In 1909, he published *Shri Mallakshaya Sangeetam*, in Sanskrit, under the pseudonym 'Chatur-pandit'. To make this cultural heritage accessible to the common man, he published commentary on his own Sanskrit grantha in Marathi over a span of several years; it was published over four volumes bearing the title: *Hindustani Sangeet Paddhati*. These volumes form today the standard text on Hindustani music, an indispensable starting point for any student of Hindustani Classical Music. His disciple S N

Ratanjankar, famous musician Shri. Dilip Kumar Roy, Ratanjankar's disciple K. G. Ginde, S.C.R. Bhatt, Ram Ashrey Jha 'Ramrang', Sumati Mutatkar and Krishna Kumar Kapoor are among the notable scholars who followed in the footsteps of Bhatkhande. His notation system became standard and though later scholars like Pt. V. D. Paluskar, Pandit Vinayakrao Patwardhan and Pt. Omkarnath Thakur introduced their improved versions, it remained a publisher's favorite. It suffered a setback with onset of desktop publishing, which found inserting marks above and below Devanagari text cumbersome; as a result, books carrying compositions yielded to theoretical texts. A recently developed notation system Ome Swarlipi follows the logical structure introduced by Pt. Bhatkhande but uses symbols instead of Devanagari alphabets.

After travelling widely and having discussions with practitioners of various schools, Bhatkhande arranged all the ragas of Hindustani classical music across 10 musical scales, called thaats. Though the thaats do not encompass all possible ragas, they do cover the vast majority, and are a key contribution to Indian musical theory. The thaat structure corresponds to the melakarta system of raga arrangement in Carnatic music, the south Indian variety of Indian classical music.

Bhatkhande wrote all of his works under one of the two pseudonyms, Vishnu Sharma and Chaturpandit.

Bhatkhande started schools and colleges in India for systematic teaching of Hindustani music. In 1916, he reorganized the Baroda state music school, and later, with the help of the Maharaja of Gwalior, established the Madhav Music College in Gwalior.

In 1926, Rai Umanath Bali and his nephew Dr. Rai Rajeshwar Bali, then education minister of United Provinces, established Marris College of Music in Lucknow, Bhatkhande preparing the course material. The college was later renamed Bhatkhande College of Hindustani Music, and is now known as Bhatkhande Music Institute (Deemed University). Preparation of that course material was a landmark achievement of Bhatkhande since musical knowledge used to be passed on orally in earlier times from Gurus and Ustads to their disciples.

Bhatkhande prepared the *Hindustani Sangeet Karmik Pustak Malika* as a series of textbooks. He also started the tradition of the All India Music Conferences to provide a common platform for discussion between Hindustani and Carnatic classical musicians.

Bhatkhande suffered paralysis and a thigh fracture in 1933. He died in 1936 on Ganesh Chaturthi day. The Post and Telegraph Department of India paid homage to Bhatkhande by releasing on September 1, 1961 a commemorative stamp containing his portrait.

Ustad Faiyaz Khan : Ustad Faiyaz Khan Born at Sikandara near Agra in 1886 (contested as 1888, 1889), he was the son of Shabr Hussain, who died three months before his birth. He was brought up by his maternal grandfather, Ghulam Abbas (1825-1934), who taught him music up to the age of 25. He was also a student of Ustad Mehboob Khan "Daraspiya", his father-in-law.



Faiyaz Khan served for a long time as the court musician of Sir Sayaji Rao Gaekwad, the Maharaja of Baroda, where he was awarded the "Gyan Ratna" (Gem of Knowledge). The Maharaja of Mysore awarded him the title "Aftab-e-Mousiqui" (the Sun of Music). Faiyaz Khan's specialities were dhrupad and khyal, but he was also capable of singing thumri and ghazal. According to

well known musicologist Dr. Ashok Ranade who was a former Director of Music Centre, University of Bombay, “There was no chink in his armour”. He was a frequent performer in the musical conferences and circles of Lucknow, Allahabad, Calcutta, Gwalior, Bombay and Mysore and in concerts organised by provincial princes who vied with one another to have the Ustad perform in their respective courts. The rulers of Baroda held him in high esteem and he was offered the seat to the right of the Maharaja of Baroda during the official functions of the royal court. He also performed at Jorasanko Thakurbari, the residential abode of Rabindranath Tagore (1861-1941), who was an admirer of the Ustad. It is known that he had held a musical session at Jorasanko a few years before the passing away of Tagore. Other well-known admirers include maestros such as Ahmad Jaan Thirakwa, Ustad Amir Khan, Ali Akbar Khan, Vilayat Khan and Pandit Ravi Shankar. Some of his best-known students are Dilip Chand Bedi, Sohan Singh, Asad Ali Khan and Shrikrishna Ratanjankar, apart from in-house disciples such as Khadim Hussain Khan, Vilayat Hussain Khan, Latafat Hussain Khan, Ata Hussain Khan and Sharafat Hussain Khan. Faiyaz Khan himself was an admirer of Abdul Karim Khan. S.N.Ratanjankar was perhaps the last of his pupils who excelled both as a teacher and as a performer.

Considered a Neo-classicist by some scholars of Indian classical music, Faiyaz Khan was known for his broadmindedness, kindness, humility and sudden fits of temper that cooled almost instantaneously. Simple at heart, he cared little for the gifts and rewards (“inam”) that was showered upon him in almost every place he performed. His associate and relative and lifelong companion Ghulam Rasul accounts an incident in the 1930s when a thousand rupee currency note was found tucked in the pocket of his sherwani (a long, collared and buttoned outer outfit) when it came home after being washed, cleansed, dried and ironed by the washerman. When asked by Rasul, the Ustad retorted in utter innocence - “How do I know that who is giving me what and how am I to know that a single currency note can be worth more than a hundred rupees?” In another incident which took place at Unaon, near Kanpur, a few years later; when the Ustad came to know that his patron was expending beyond his means to host the concert of the Ustad to celebrate the sacred thread ceremony of his son, Faiyaz Khan accepted only the fare for his return journey and blessed the child with a gold ring purchased from the local goldsmith during his afternoon stroll the day before.

Failing health due to a bout of typhoid in 1945 followed by tuberculosis restricted him to lower his pitch to “B” and “B Flat” though in his prime, he always sang in “C Sharp” and “C”. The available recordings of the Ustad are almost entirely from his later years. By the time he died (on 5 November 1950 at Baroda), he had earned the reputation of being one of the greatest and most influential vocalists of the century.

Manna Dey : Manna Dey was born to Mahamaya and Purna Chandra Dey on 1 May 1919 in Kolkata. Besides his parents, his youngest paternal uncle, Sangeetacharya Krishna Chandra Dey highly inspired and influenced him. He received his early education in Indu Babur Pathshala, a small pre-primary school. He started doing stage shows in school since 1929. He attended Scottish Church Collegiate School and Scottish Church College. He participated in sports events like wrestling and boxing in his college days, taking training from Gobar Guha. He graduated from Vidyasagar College.

Dey began taking music lessons from Krishna Chandra Dey and Ustad Dabir Khan. During this period, he stood first for three consecutive years in three different categories of inter-collegiate singing competitions.



In 1942, Dey accompanied Krishna Chandra Dey on a visit to Bombay. There he started working as an assistant music director first under Krishna Chandra Dey, and then under Sachin Dev Burman. Later, he assisted other music composers and then started to work independently. While working independently as a music director for various Hindi movies, Manna Dey continued to take musical lessons in Hindustani classical music from Ustad Aman Ali Khan and Ustad Abdul Rahman Khan.

Dey started his career in playback singing with the movie Tamanna, in 1942. The musical score was by Krishna Chandra Dey and Manna sang a duet named “Jago Aayee Usha Ponchi Boley Jago” with Suraiya which was an instant hit.

But it was only in 1943 that he got his first solo break with Ram Rajya. Incidentally, the producer of the film Vijay Bhatt and its composer Shankar Rao Vyas had approached K C Dey with an offer for playback in the film. When K C Dey refused the offer on the grounds that he would not lend his voice to other actors, they spotted Manna Dey sitting in the corner of the room and offered him the opportunity. Shankar Rao Vyas taught Manna Dey the songs and he chose to sing them in his uncle’s distinct style. And thus started the illustrious career with the first song “Gayi tu gayi Seeta sati”(Ram Rajya, 1943).

He sang for first time songs composed by Sachin Dev Burman, Upar Gagan Vishal and Duniya Ke Logo in the 1950 movie Mashal, which became popular and from here his association with S.D.Burman began. Its lyrics were written by Kavi Pradeep. In 1952, Dey sang for a Bengali and a Marathi movie with the same name and storyline, Amar Bhupali. This established him as a leading playback singer in Bengali films and Marathi films as well by 1953.

In the post independence period, after 1947, Manna Dey was regularly used by music composers Anil Biswas, Shankar Rao Vyas, S.K.Pal, S.D.Burman, Khem Chand Prakash, and Mohd.Safi from 1947 to 1957. Manna Dey established his versatility between 1948 to 1954 by singing not only the classical based film songs but also singing such film songs which were fusion of Indian classical music and pop music and by giving classical music concerts.

Kishore Kumar and Manna Dey had recorded only 6 songs together until 1968 and all proved to be hits. In 1968, R.D. Burman brought them together for “Ek Chatur Naar” in Padosan. His peak period as a playback singer is considered to be from 1953 to 1969. Salil Chowdhry compositions rendered by Dey from films like Anand became popular as well.

He sang “Bohey Nirontaro Ananto Anandadhara” from the album Rabindra Sudha in 1961, and then went on to sing 14 songs composed by Rabindranath Tagore until 2002 in Hindi. He sang title songs of Hindi serials like Hum Hindusthani (1986), Khari Khari (1984), Aasmaan Se Oonchaa (1997) and Aao Jhoomte Gaaye (2001), all composed by Barma Malik.

He sang duets with singers like Usha Mangeskar, Mukesh, Sandhya Mukherjee, Mahendra Kapoor, Talat Mahmood, Amit Kumar, Shailendra Singh, Krishna Kalle, Sharda Rajan Iyengar, Arati Mukherjee, Chandrani Mukherjee, Anuradha Paudwal, Hemlata, Minu Purushottom, Bhupinder Singh, K.J. Yesudas, Suresh Wadkar, Kavita Krishnamoorti, Alka Yagnik, Antara Chowdhury, Preeti Sagar, Dilraj Kaur, Yunus Fazmi, Jaspal Singh, Anwar, Manhar Udhas, Joginder and Mubarak Begum. He worked with more than

102 music directors in Hindi film industry . In 8 June 2013, Dey was admitted to the ICU in a Bengaluru hospital after a chest infection gave rise to other complications. His health gradually improved and about a month later doctors took him off the ventilator support. He died of a cardiac arrest at 3:45 pm on 24 October at Narayana Hrudayalaya hospital. Musicians, politicians, cricketers and other notable persons issued statements on his death.

There are mainly four types of Indian Musical Instruments. “Tatt” – string instrument, (ex – sitar, veena, suro mandal, sarod, santoor, dotara etc) “Aanadhha” – Leather Instrument, (ex – Mridanga, Srikhol, Tabla-Bayan, Pakhwaj ect) “Ghana” – Metal Instrument (ex – Jhaanjh, Taal Ghatam, Maatkans etc) and “Sushir” – Instrument played by blowing air into it (ex – Harmonium, Flute, Sehnai).

1.4.6 Music relevant for elementary level

Prayer Song :

“Janaganamana Adhinayaka”

“Ananda loke Mangala loke”

Seasonal Song:

“Esho he Baishakh”

“Megher kole rode utheche”

“Pons toder daak diyeche”

Occasional Song:

“Dhana Dhannya Pushpe Bhara”

“Othogo Bharata Lakhi”

Bichitra:

Gram chara oi Raanga Matir Path.

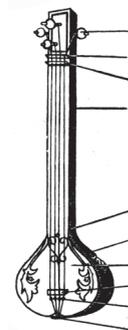
1.4.7 Indian Musical Instrument

The instrument, created or adapted to make musical sounds is known as musical instrument. In principle, any object that produces sound can be a musical instrument—it is through purpose that the object becomes a musical instrument. The history of musical instruments dates to the beginnings of human culture. Early musical instruments may have been used for ritual, such as a trumpet to signal success on the hunt, or a drum in a religious ceremony. Cultures eventually developed composition and performance of melodies for entertainment. Musical instruments evolved in step with changing applications.

Musical instruments. are made from animal skins, bone, wood, and other non-durable materials. Musical instruments developed independently in many populated regions of the world. Musical Instrument of India are of four types. (1) String Instrument, (2) Instrument made by animal skin, (3) Metal Instrument & (4) Instrument played by using air, these types are of two types- i) Reed based Instrument. Like Harmonium, Piano and (ii) Flute, Saxophone are of second type. Some Most Useful music instruments are :

Tanpur: The **Tanpur a** (or **Tambura**, **Tanpuri**) is a long-necked plucked string instrument found in various forms in Indian music; it does not play melody but rather supports and sustains the melody of another

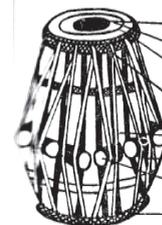
instrument or singer by providing a continuous harmonic bourdon or drone. A Tanpura is not played in rhythm with the soloist or percussionist: as the precise timing of plucking a cycle of four strings in a continuous loop is a determinant factor in the resultant sound, it is played unchangingly during the complete performance. The repeated cycle of plucking all strings creates the sonic canvass on which the melody of the raga is drawn. The combined sound of all strings is very rich in harmonics that will enhance the resonance of the tones sung or played to the accompaniment of a fine tanpura.



The name *tanapura* is derived from *tana*, referring to a musical phrase, and *pura*, which means “full” or “complete”.¹ Hindustani musicians favour the term ‘Tanpura’ whereas Carnatic musicians say ‘tambura’; ‘tanpuri’ is a smaller variant used for accompanying instrumental soloists.

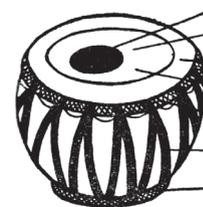
The body shape of the Tanpura somewhat resembles that of the sitar, but it has no frets – as the strings are always plucked at their full lengths. One or more tanpuras may be used to accompany vocalists or instrumentalists. It has four or five (rarely six) metal strings, which are plucked one after another in a regular pattern to create a harmonic resonance on the basic note or keynote.

Tabla: A pair of small drums fundamental (since the 18th century) to Hindustani music of northern India, Pakistan, and Bangladesh. The higher-pitched of the two drums, which is played with the right hand, is also referred to individually as the *Tabla* or as the *daya* (*dahina* or *dayan*, meaning “right”). It is a single-headed drum usually of wood and having the profile of two truncated cones bulging at the centre, the lower portion shorter. It is about 25 cm (10 inches) in height and 15 cm (6 inches) across. Skin tension is maintained by thong lacings and wooden dowels that are tapped with a hammer in retuning. It is usually tuned to the tonic, or ground note, of the raga (melodic framework).



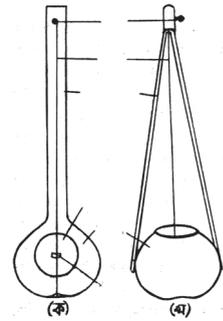
Baya: The *baya* (*bahina* or *bayan*, meaning “left”), played with the left hand, is a deep kettledrum measuring about 25 cm (10 inches) in height, and the drum face is about 20 cm (8 inches) in diameter. It is usually made of copper but may also be made of clay or wood, with a hoop and thong lacings to maintain skin tension. Pressure from the heel of the player’s hand changes the tone colour and pitch.

The tuning of the *baya* varies, but it may be a fifth or an octave below the *daya*. A disk of black tuning paste placed on the skin of each drum affects pitch and also generates overtones characteristic of the drums’ sound. The musician plays the tabla while seated, with the *baya* to the left of the *daya*. Sound is produced on the drums through a variety of different finger and hand strokes. Each drum stroke can be expressed by a corresponding syllable, used for both teaching and performance purposes. The intricate music of the drums reflects the rhythmic framework (*tala*) of the piece. Tabla can be documented in India from the late 18th century. Originally associated with courtesan dance traditions, tabla now are used in a variety of genres and styles of Hindustani music. Distinguished players of the tabla include Alla Rakha Khan and his son Zakir Hussain.



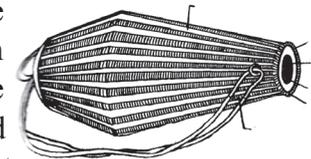
Ektara : In origin the *ektara* was a regular string instrument of wandering bards and minstrels from India and is plucked with one finger. The *ektara* is a drone lute consisting of a gourd resonator covered with

skin, through which a bamboo neck is inserted. The *ektârâ* player holds his instrument upright, gripping the neck just above the resonator and plucking the playing string with the index finger of the same hand. If he is dancing, he supports the gourd resonator with his other hand, in which he carries clusters of small bells which sound as he beats his hand against the gourd. Pressing the two halves of the neck together loosens the string, thus lowering its pitch. The modulation of the tone with each slight flexing of the neck gives the *ektara* its distinctive sound. There are no markings or measurements to indicate what pressure will produce what note, so the pressure is adjusted by ear. The various sizes of *ektara* are soprano, tenor, and bass. The bass *Ektara*, sometimes called a *dotara* often has two strings (as literally implied by *do*, “two”).

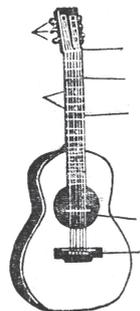


The *ektara* is a common instrument in Baul music from Bengal. Some controversy has arisen in recent years over the adoption and alleged corruption of Baul music by popular bands and films in Bengal. It has become common to mix traditional instruments like the *ektara* with more modern sounds in an attempt to appeal to a wide audience, which traditional musicians feel is “destroying the true beauty” of Baul music.^[5] These instruments are commonly used in *kirtan* chanting, which is a Hindu devotional practice of singing the divine names and mantras in an ecstatic call and response format. The *Ektara* is used by *Sadhus*, or wandering holy men and for Sufi chanting as well as by the Bauls of Bengal.

Khol : The **khol** (also known as a Oriya: **Mrdanga** or **Mridong**) is a terracotta two-sided drum used in northern and eastern India for accompaniment with devotional music (*bhakti*). It originates from the Indian states of West Bengal, Assam and Manipur. The drum is played with palms and fingers of both hands. The *khol* is a drum with a hollow earthen body, with drumheads at both ends, one far smaller than the other. The drumheads are made of cow skin, and are three-layered and treated with a circle of rice paste, glue, and iron known as *syahi*. Some modern instruments are made with a fibreglass body and synthetic drumheads. The drum is used to accompany Bengali, Oriya *kirtans* by medieval poets like Chandidas, Govindadasa and Gyanadas. It is also used to accompany Gaudiya *Nritya*, one of the nine Indian classical dances.



Guitar: The guitar is a popular musical instrument classified as a string instrument with anywhere from 4 to 18 strings, usually having 6. The sound is projected either acoustically or through electrical amplification (for an acoustic guitar or an electric guitar, respectively). It is typically played by strumming or plucking the strings with the right hand while fretting (or pressing against the fret) the strings with the left hand. The guitar is a type of chordophone, traditionally constructed from wood and strung with either gut, nylon or steel strings and distinguished from other chordophones by its construction and tuning. The modern guitar was preceded by the gittern, the vihuela, the four-course Renaissance guitar, and the five-course baroque guitar, all of which contributed to the development of the modern six-string instrument



Harmonium: The harmonium is also known as *peti* or *baja*. This instrument is not a native Indian instrument. It is a European instrument

which was imported in the 19th century. It is a reed organ with hand pumped bellows. Although it is a relatively recent introduction, it has spread throughout the subcontinent. Today, it is used in virtually every musical *genre* except the south Indian classical.

There are a number of parts of the harmonium, here are some of the main ones:

Body - The body is the box that houses the various parts of the harmonium. There are two basic styles. One style is simply a box with everything in a fixed position (see above illustration). Another style collapses down into a suitcase style of enclosure. There are several collapsible styles; one is shown in the right hand illustration.

Bellows - The bellows are the pumps which force the air through the instrument. There are really two sets of bellows, one internal and one external. The external bellows are pumped by hand; these are familiar to the average player. The external bellows then forces the air into the internal bellows. The internal bellows act as a reservoir for the air. These bellows lay deep inside the instrument and are visible only by disassembling the instrument. The internal bellows push against a spring; it is this spring which forces the air over the reeds.

Keys - The keys, known in India as “*chabi*”, are the small wooden controls that the performer fingers to play the music. There are black keys and white keys. Although the keyboard is reminiscent of the keyboards found on pianos and other Western instruments, the international standard for pitch (i.e., A=440) has not been adopted.

Cover - The cover is a small piece of wood, sometimes with cloth or glass, which covers the workings of the harmonium. It serves two functions. The most important is to protect the workings against damage. It also changes the sound by muting the higher frequencies while allowing the lower frequencies to pass. Sometimes the cover has a sliding panel which makes this muting action adjustable.

Stops (main) - The main stops are a series of valves which control the way that air flows in the instrument. The main stops control the air flowing into the various reed chambers. There are usually a minimum of one stop per reed chamber; however it is not unusual to find more than one per chamber. Although these extra stops may control special functions, such as tremolo, it is not unusual to find a redundant stops with no special function. This reflects the tendency of Indian musicians to simply open up all the stops, regardless of the function.

Stops (drone) - The drone stops are the most distinguishing feature of Indian harmoniums. These stops control the flow of air over un-keyed reeds. They simply drone their particular pitch. There may be any number of drones set to any pitch; however they tend toward, A sharp, C sharp, D sharp, F sharp, and G sharp.

Handles - The handles allow for easy transport of the harmonium. In a box type, there are two handles on the sides. In a suitcase style, there is only a single handle.

Reeds (not shown) - The reeds a series of brass reeds set into a heavier brass base. Each base is roughly 1/4 inch by 2 inches. There must be a minimum of one reed per key while two or three are the most common. These small brass reeds vibrate whenever air passes over them.

Coupler (not shown) - A coupler is a mechanical arrangement whereby another key is played along with the one being fingered. Normally it is the key located an octave below the selected key. This arrangement produces a much richer sound than an uncoupled keyboard. This coupling may be enabled or defeated by the user.

Scale Changer (not shown) - Scale changer is an elaborate mechanical arrangement whereby the entire keyboard may be shifted up or down. This allows a musician to transpose the performance into any key without having to learn new fingerings.

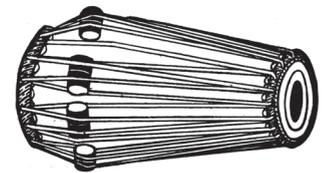
Reed Board (not shown) - The reed board is a flat piece of wood with a series of long holes cut in them. There are a series of brass reeds covering these holes. These reeds are arranged in banks. If there are two banks of reeds, it is said to be a double-reed harmonium. If there are three banks of reeds, it is said to be a triple-reed harmonium. The triple-reed harmonium is generally considered to be superior to the double-reed variety. Sometimes this board is not flat, but instead has the reeds set into perpendicular baffles. This style is said to produce a better sound. There are two common sitting positions, a standard position and one used by *qawwali* singers. The standard position is simple. One simply places the harmonium on the ground. The right hand plays the keys while the left hand pumps the bellows. This is the most common position used in India today. There is also a position used by *qawwali* singers and folk musicians. For this position one end of the harmonium rests on the ground while the other end rests partially in the lap. Both positions are illustrated in the above pictures.

The position is reversed for left handed musicians. In such cases the right hand pumps the bellows while the left hand plays the melody.

The harmonium may also be played standing and walking. In this case the harmonium is slung by a strap around the neck. This however, seems to be limited to beggars that one may occasionally encounter.

Pakhawaj: The pakhawaja or mridang is an Indian barrel-shaped, two-headed drum, a variant and descendant of the older mridang.

It is the standard percussion instrument in the dhrupada style and is widely used as an accompaniment for various forms of music and dance performances. The pakhawaja has a low, mellow tone, very rich in harmonics. Set horizontally on a cushion in front of the drummer's crossed leg, the larger bass-skin is played with the left hand, the treble skin by the right hand. The bass face is smeared with wet wheat dough which acts as the *kiran* and is the cause of the vivid, bass sound the pakhawaja produces.



The word *pakhāvaja* or *pakhavāja* is of Prakrit origin, whose Sanskrit equivalent is *pak avādya*. This instrument is always known as *pakhavaj* and not *pakshavadya*. This word is derived from the words *pakc̣a* (“a side”), and *vādya* (“a musical instrument”), it is said that, during the 14th century, the great mridangists experimented with the materials used in mridang construction, and finally started using wood for the main body as opposed to the original clay. Thus, a new name pakhawaj emerged, whilst the older name, mridang was still used.

As with the tabla, the pakhavaj rhythms are taught by a series of mnemonic syllables known as *bol*. The playing technique varies from that of tabla in many aspects: in the bass face, the artist hits with his whole palm instead of the finger tip hitting which is done in tabla. In the treble face, the artist hits his whole palm with the fingers properly placed on the skin to produce different bols.

In traditional pakhavaj styles a student would learn a number of different strokes which produce a specific sound. These are remembered and practiced with corresponding syllables.

The very basic capacity is to play a *theka* in a particular *tala* or rhythmic cycle, as for instance *chautala*, (which is unrelated to chowtal, a type of folksong in the Bhojpuri region and sung by amateurs during the Phagwah/Holi festival) in 12 beats:

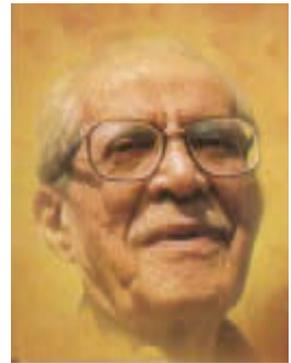
| *dha dha* | *din ta* || *kite dha* | *din ta* | *tite kata* | *gadi gene* |

Advanced students learn *reelas* that are virtuoso pakhavaj compositions.

1.4.8 A memorable personality of instrumental music

A Memorable Personality In Instrumental Music: V. Balsara, known for his versatility with an array of musical instruments, had been suffering from geriatric problems for the past few months and was undergoing treatment at his nephew's residence in Ballygunge Park.

V. Balsara started his career in Hindi films but could not sustain it for long as a music director. But he changed the track of his career and became a famous instrumentalist, orchestra conductor, a music teacher and the music director of non-film songs and a few Bengali films during rest of his life. I became aware of his name in the 1970s mainly for his beautiful compositions of some non-film Hindi songs.



Vistas Ardeshir Balsara (Vishtasp Ardeshir Balsara ?) (22/06/1922 – 24/03/2005), known as V Balsara in the music world was born in Bombay (Mumbai) to a Gujarati speaking Parsi Zoroastrian family. From the childhood, he was inclined towards Western music. His first childhood teacher was his mother who taught him harmonium. At the age of 6, he gave his first public performance at C.J Hall in Mumbai where he played the pedal harmonium. 10 years later, he had mastery over five musical instruments including piano which he learnt from a German musician Hildafeld. His filmy music career started with Hindi film ‘Baadal’ (1942) in which he assisted music director Ustad Mustaq Hussain. Later he assisted Master Ghulam Haider, and Khemchand Prakash. His first independent assignment was for the film ‘Circus Girl’ (1943) in which he composed music along with another music director Vasant Kumar Naidu. In all, he was the music director for about a dozen Hindi films most of which were released in 1940s and early 1950s. In 1947, he joined HMV as Orchestra Director and worked for R. K. banner and Naushad. Being a well respected musician, he became the founder secretary of Bombay Cine Musicians’ Association and Bombay Cine Music Directors’ Association. In 1953, Gyan Prakash Ghosh, a well known music director of Bengali films (he had composed music for a few Hindi films as well) invited him to Calcutta (Kolkatta) to attend a musical gathering. During this period, he fell in love with the City of Joy and made Kolkatta his permanent residence. Since he was now fully involved with Bengali films, he started learning Indian classical music from Muneshwar Dayal of Gaya and took interest in Rabindra Sangeet. During this period, he was connected with about 30 Bengali films in various capacity – Orchestra Conductor, background music, assistant music director and music directors. He also composed many non-film Hindi and Bengali songs mostly in the 60s and 70s. He had many music albums to his credit particularly as an instrumentalist and symphony orchestra music composer. Parts of his orchestra albums were often used by AIR and Radio Ceylon as filler after the end of a radio programme.

Those who knew him from the close quarter say that he was a well respected person not only for his mastery over musical instruments, orchestra conductor and music compositions but also for his simplicity, soft spoken and jovial nature without any show of ego. That is what perhaps earned him the title ‘Gentleman Musician’ from the film and music fraternities. During the last phase of his life, he lost many of his close relatives including his wife and two sons. However, his music and his well wishers gave him company until his death in March 23, 2005. In the same year, his last Bengali film as a music director ‘Til Theke Taal’ (2005) was released. After his death, Saregama (formerly HMV), brought an album containing his orchestral compositions of 10 Hindustani classical ragas as a tribute to him. His well wishers in Kolkatta have constituted V Balsara Memorial Committee which arranges musical evenings on V Balsara’s birth and death anniversaries. Promising singers and musicians are given V Balsara Awards on these occasions, . The ‘gentleman musician’, as the affable Parsi was known among friends, had only his music to give him company in the twilight years as he grappled alone with ill health in the absence of his wife and two sons had predeceased him.

The striking feature of Balsara was his never-say-die spirit. At 83, Balsara was still going strong on the music front with his Bengali film production ‘Til Theke Taal’ running in theatres in West Bengal.

He settled in Kolkata in 1954 after he was invited by legendary musician Jnan Prakash Ghosh, to the city. Earlier, he had been in Mumbai, then Bombay.

Born in June 1922, Balsara learnt music from his mother Nazamaye, and gave his first solo performance at the age of six with the pedal harmonium, in use in those times, at a packed C J Hall in Mumbai. V. Balsara, synonymous with the sound of music in the city, died on Thursday afternoon. The legendary pianist and composer was 83.

1.5 Dance

Nritya (Dance) comes from the word ‘Nriti’. Sangeet is total component of music, band and dance. Out of these three components of Sangeet, Dance means movement of bodies. But for various reasons movement of bodies is not the actual definition of dance. Perfect and Proper dance means movement of bodies under well control and discipline. For proper development both physical and mental health of human body ‘Dance’ is the best and easy way

1.5.1 Objectives of teaching Dance :

1. To make children delightful
2. To make good exercise for child’s body
3. To know about own country
4. To know own culture and literature
5. To grow spirituality
6. To be united

7. To develop character
8. Development of humanity
9. To develop of devotion & love
10. To build up nationalism
11. To know and love nature
12. Development self concept in proper way

1.5.2 History of dance

Till today we are not getting any proper information serially of our Indian dance but its constituents we get from stone inscription. Our dance history is divided into some parts:

1. Pre Vedic period
2. Vedic period
3. Post Vedic period
4. Medieval period
5. Modern period

King of Mahadev who is well known to us as 'Nataraj'. It is said that one day Lord Shiva blew a triumphet as a result of which creation of rhythm or 'tala' is invented. Lord Shiva moved his body with the rhythm and invention of dance happens. God of beauty – Lord Shiva thus became the master of dance or 'Nataraj'

A Memorable Person of Dance :

Uday Shankar : Uday Shankar (8 December 1900 – 26 September 1977), was an Indian dancer and choreographer, best known for creating a fusion style of dance, adapting European theatrical techniques to Indian classical dance, imbued with elements of Indian classical, folk, and tribal dance, which he later popularised in India, Europe, and the United States in 1920's and 1930's. He was a pioneer of modern dance in India.



In 1962, he was awarded by Sangeet Natak Akademi, India's The National Academy for Music, Dance and Drama, with its highest award, the Sangeet Natak Akademi Fellowship for lifetime achievement, and in 1971, the Govt. of India, awarded him with its second highest civilian award the Padma Vibhushan

He was born Uday Shankar Chowdhury, in Udaipur, Rajasthan, to a Bengali family with origins in Narail (present Bangladesh). His father Shyam Shankar Chowdhury, a noted barrister, was employed with the Maharaja of Jhalawar in Rajasthan at the time of his eldest son's birth, while his mother Hemangini Devi was descended from a Bengali zamindari family. His father was conferred the title, 'Harchowdhury' by the

Nawabs, but he preferred to use surname 'Chowdhury' minus 'Har.' His younger brothers were Rajendra Shankar, Debendra Shankar, Bhupendra Shankar and Ravi Shankar. Of his siblings, Bhupendra died young in 1926.

His father was a Sanskrit scholar, who graduated with honours from the Calcutta University and later studied at Oxford University, where he became a Doctor of Philosophy.^[8] Since his father moved frequently on account of his work, the family spent much time in Uday's maternal uncle's house at Nasratpur with his mother and brothers. Uday's studies also took place at various locations including Nasratpur, Gazipur, Varanasi, and Jhalawar. At his Gazipur school, he learnt music and photography from Ambika Charan Mukhopaddhay, his Drawing and Crafts teacher.^[8]

In 1918, at the age of eighteen, he was sent to Mumbai to train at the J. J. School of Art and then to Gandharva Mahavidyalaya.^[9] By now, Shyam Shankar had resigned his post in Jhalawar and moved to London. Here he married an English woman and practised law, before becoming an amateur impresario, introducing Indian dance and music to Britain. Subsequently, Uday joined his father in London, and on 23 August 1920, joined the Royal College of Art, London to study painting under Sir William Rothenstein. He danced at a few charity performances that his father had organised in London, and on one such occasion, noted Russian ballerina Anna Pavlova happened to be pre Uday Shankar did not have any formal training in any of the Indian classical dance forms. Nevertheless, his presentations were creative.^[11] From a young age, he had been exposed to both Indian classical dance and folk dance, as well as to ballet during his stay in Europe. He decided to bring elements of both the styles together to create a new dance, which he called Hi-dance. He went on to translate classical Indian dance forms and their iconography to dance movements, after studying the Rajput painting and Mughal painting styles at the British Museum. Further during his stay in Britain, he came across several performing artists, subsequently when he left for Rome on the 'Prix de Rome' scholarship of French Government, for advanced studies in art.

Soon his interaction with such artists grew and so did the idea to transform Indian dance into a contemporary form. The turning point came with his first meetings with legendary Russian ballerina Anna Pavlova. She was looking for artists to collaborate on India-based themes. This led to the creation of ballets based on Hindu themes, 'Radha-Krishna', a duet with Anna, and 'Hindu Wedding', for inclusion in her production, 'Oriental Impressions'. The ballet was presented at the Royal Opera House, Covent Garden, in London. Later he continued to conceive and choreograph ballets, including one based on the Ajanta Caves frescoes, which was performed across the United States.^[12] In time his style of dance came to be known as 'Hi-dance', though later he called it 'Creative dance'. He worked with Anna for one and a half years, before starting out on his own in Paris.

Shankar returned to India in 1927, along with a French pianist, Simon Barbieri, who was now his disciple and dance partner, and a Swiss sculptress nl:Alice Boners, Alice Bonner, who wanted to study Indian art history. He was welcomed by Rabindranath Tagore himself, who also persuaded him to open a performing arts school in India.

On his return to Paris in 1931, he founded Europe's first Indian dance company, along with Alice Bonner, who by now had become one of his disciples. Together with musicians Vishnu Dass Shirali and Timir

Baran, he created a new template for music to accompany his newly devised movements. His first series of dance performances was held on 3 March 1931, at the Champs-Elysees Theatre in Paris, which was to become his base as he toured through Europe.

Soon he embarked on a seven-year tour through Europe and America with his own troupe, which he called – ‘Uday Shankar and his Hindu Ballet’, under the aegis of impresario Sol Hurok and Celebrity Series of Boston of impresario, Aaron Richmond. He performed in the United States for the first time in January 1933 in New York City, along with his dance partner Simkie, a French dancer. As part of the visit, a reception was held at the Grand Central Art Galleries. After, Shankar and his troupe set out on an 84-city tour throughout the country.

His adaptation of European theatrical techniques to Indian dance made his art hugely popular both in India and abroad, and he is rightly credited for ushering in a new era for traditional Indian temple dances, which until then had been known for their strict interpretations, and which were also going through their own revival. Meanwhile, his brother Ravi Shankar was helping to popularise Indian classical music in the outside world.

In 1936, he was invited by Leonard Knight Elmhirst, who had earlier assisted Rabindranath Tagore in building Sriniketan, close to Shanti Niketan, to visit Dartington Hall, Totnes, Devon for a six-month residency, with his troupe and lead dancer, Simkie. Also present there were Michel Chekhov, nephew of Russian playwright Anton Chekhov, the German modern dancer-choreographer, Kurt Jooss and another German Rudolf Laban, who had invented a system of dance notation. This experience only added more exuberance to his expressionist dance.

In 1938, he made India his base, and established the ‘Uday Shankar India Cultural Centre’, at Simtola, 3 km from Almora, in Uttarakhand Himalayas, and invited Sankaran Namboodri for Kathakali, Kandappa Pillai for Bharatanatyam, Ambi Singh for Manipuri and Ustad Allauddin Khan for music. Soon, he had a large assemblage of artists and dancers, including Guru Dutt, Shanti Bardhan, Simkie, Amala, Satyavati, Narendra Sharma, Ruma Guha Thakurta, Prabhat Ganguly, Zohra Sehgal, Uzra, Lakshmi Shankar, Shanta Gandhi; his own brothers Rajendra, Denbendra and Ravi also joined him as students. The centre, however, closed after four years in 1942, due to a paucity of funds. As his students dispersed, he regrouped his energies and headed South, where he made his only film, *Kalpna* (Imagination) in 1948, based on his dance, in which both he and his wife Amala Shankar danced. The film was produced and shot at Gemini Studios, Madras.

Uday Shankar settled in Ballygunge, Kolkata in 1960, where the “Uday Shankar Center for Dance” was later opened in 1965. In 1962 he was awarded the highest award of the Sangeet Natak Akademi, the Sangeet Natak Akademi Fellowship for lifetime contribution to Indian dance.

Awards

- 1960 Sangeet Natak Akademi Award – ‘Creative Dance’
- 1962 Sangeet Natak Akademi Fellowship
- 1971 Padma Vibhushan
- 1975 *Desikottama*, Visva-Bharati University

1.5.3 Brief introduction & information regarding various dance forms

Nritya (Dance) comes from the word 'Nriti'. Sangeet is total component of music, band and dance. Out of these three components of Sangeet, Dance means movement of bodies. But for various reasons movement of bodies is not the actual definition of dance. Perfect and Proper dance means movement of bodies under well control and discipline. For proper development both physical and mental health of human body 'Dance' is the best and easy way

Indian Classical Dance

Indian Classical dance are classified :-

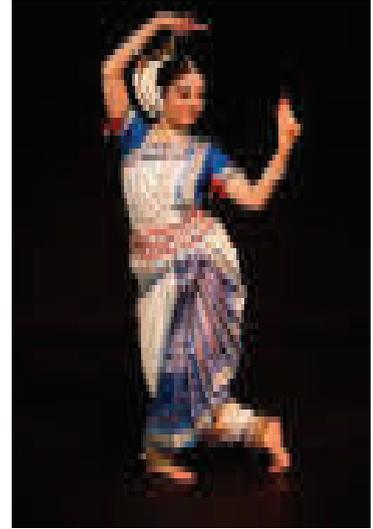
1. Kathak (North India)
2. Kathakali (Kerala)
3. Bharatnatyam (Tamilnadu)
4. Monipuri (Monipur)
5. Odishi (Orisha)
6. Kuchipudi (Andhra Pradesh) and also Natabari, Mohini Attum , Rabindra Sangeet etc.

Description:

1. **Kathak** : 'Kathak' means story teller. Here story of God, ancient history of our country performs by music and dance. Story-teller is called ghatakar. Generally this dance is performed from Northern side of our country, mainly from Lucknow, Jaipur and Veranasi. Kathak dancer generally wear ghaghra, choli-orna.
2. **Kathakali**: Kathakali is well known south – Indian dance from Kerala. It is a folk dance of Malabar area in kerala. Here story is performed by music and dance in Kathakali style. This power dance is generally performed by men. Make up of this dance is divided in five parts:
 - (a) Pachha
 - (b) Kathi
 - (c) Tari
 - (d) Kori
 - (e) Minukku
3. **Bharat Natyam** : The story of this dance is taken from Indian drama. Some different opinions about this dance is due to concept. Bharat Natyam is a dance which comes from Tamilnadu, South India.



To perform this dance , it is divided into six parts. (1) Alaripu (2) Yotiswaran (3) Sodam (4) Bharam (5) Padam (6) Tillana. Dancer generally wears a dress like 'Pajama'. Here brooch used by the dancer is symbol of sun and moon.



4. **Monipuri :** This dance is performed from the state of Monipur. A State of northern side in our country. Previously this dance composed from the story of 'Shiva Parvati'. Now it is composed from the story of Radha-Krishna. One of importance part of this dance is Rasa, 'Khol, Mridanga & Mandira used to perform this dance. Men wear dhuti, tupi, pagri and women wear ghaghra & orna in this dance.
5. **Natabari :** Lord sri Krishna is also famous in the name of natabar. It is also a part of Kathak dance where story is composed from the life of lord Sri Krishna.
6. **Oddisi :** This dance is one of the oldest dance in our country. This classical dance is generally performed by 'Devdasi'. This dance is divided in six parts:
 - (a) Bhumi –Pranam
 - (b) Batunritya
 - (c) Istodeva Bandana
 - (d) Pallavi Nritya
 - (e) Tarijham
 - (f) Moholadho

Dancers wear Pottosari, Kankar, Ketaki-korak, Pahara, Bakulkulika, Cchopsarika, Nagpash, Mathamoni in this dance .

7. **Kuchipudi :** This dance comes from village 'Kachhipadi' on the bank of river Krishna in Andhra Pradesh. This dance is performed by men. Instruments – Violin, Mridanga & Beena are used to perform this dance.
8. **Mohini Attam :** This is a dance which comes from South India. The story of this dance is mainly to pray and love God. There are some similarity with Bharat natyam , Kathakali and this dance. This dance is performed in a specific area with slow rhythm.
9. **Rabindra Nritya :** This dance is performed with the songs of Rabindranath Tagore. In Rabindra Nritya some contents comes from Manipuri and Odishi dance. Generally dancers wear sari in this dance though it is not a classical dance therefore, dancers are given liberty to perform.

1.5.4 Folk dance of Bengal :

In Bengal this dance is performed by common people in social function with spontaneous joy and cheer known to us Loknritya or folk dance. It is not an Indian classic dance. There is no such restriction to perform this dance. Anyone may come to perform this dance with joy. It is performed by group or single. Some of this dance:

(a) **Baul :** It is one of the oldest folk dance of Bengal. This dance perform with a special rhythm by ‘Ektara’.

(b) **Raybeshe :** It is power dance. This is performed by group. Different types of physical exercise are performed through this dance.

(c) **Kathi :** This dance is also a group dance. Here dancers perform the dance with help of stick. This folk dance comes from Garbeta in Midnapore district.

(c) **Leto:** Years ago when technology and electronic media was not even a figment of one’s imagination, folk theatre came into existence to entertain the masses. Men garbed in women’s attire would enact female characters and the themes would primarily revolve around social, mythological and historical. One such particular form of folk play had evolved with the name Neto, a term which later degenerated into Leto. There was a time when Leto would be widely performed across the Bankura, Birbhum, Hooghly, Nadia, Midnapore and Murshidabad districts of West Bengal. But in due course of time, it went on to lose its momentum and is now dwindled into a niche spectacle within a few good areas.

(d) **Jhumur:** This dance is also a group dance. The people of Bankura, Birbhum districts perform this dance.

(e) **Chhau:** This is performed by the people of Purulia. This is performed by the men only with a special dress and masks.

(f) **Dhali:** Dhali dance is another heroic folk dance of West Bengal. During the historic times, after winning the battle the fatigued and exhausted soldiers danced using swords in contentment in order to inspire themselves for yet another war.

(g) **Bratachari:** The Bratachari movement was a movement for spiritual and social improvement in India initiated by Gurusaday Dutt in 1932. The movement aimed to raise the self-esteem and national awareness of people of undivided India regardless of their religion, caste, sex or age. It was a comprehensive programme of physical, mental, and intellectual culture, based on folk traditions of physical exercise, art, dance, drama, music, singing and social service. The Bratacharis undertake to perform good deeds, strengthen fellowship and develop the mind and body through dance. Bratachari purports to present a complete synthesis of life, an integrated system of culture consisting of a complete philosophy of life, coupled with and expressed through a simple scheme of practical training and discipline for the building up of the inner life and character as well as the body, or in other words, for the simultaneous and harmonious cultivation of the body and soul



of man. This movement is binding Hindus and Moslems, Christians and other communities together in a deep bond of harmony and mutual fellowship as no other movement is able to do.

Apart from this folk dances there are some other forms of dance. Such as – Sari, Jari, Dhali etc are performed in West Bengal.

Make up : Make up is one of the important part of dance. To perform dancers wear proper and well dress with proper makeup. Both dress and make up depend on the subject of the dance as well as gharana. A dancer must take attention for proper makeup.

Dance: (in primary education)

To teach a good lesson to children is the joyful objective of the Primary Education. Sangeet (Music, Band, Dance) is the best media through which a children can easily make themselves happy. Though “Dance” is our subject, here is given some reason by which children can grow up with happiness by dance.

- (1) Endless joy.
- (2) Exercise of the total body.
- (3) To know about the culture of the particular place and their surroundings.
- (4) To know literature about particular place
- (5) To develop spiritualism
- (6) To develop rhythm concept
- (7) To build up a good character and strong mind set up.

Apart from this, dance helps the children how to be a good humanitarian.

1.5.5 Various regional dance forms of India

1. Kathak (North India)
2. Kathakali (Kerala)
3. Bharatnatyam (Tamilnadu)
4. Monipuri (Monipur)
5. Odishi (Orisha)
6. Kuchipudi (Andhra Pradesh) and also Natabari, Mohini Attum , Rabindra Sangeet etc.

Description:

1. **Kathak :** ‘Kathak’ means story teller. Here story of God, ancient history of our country performs by music and dance. Story-teller is called ghatakar. Generally this dance is performed from Northern side of our country, mainly from Lucknow, Jaipur and Varanasi. Kathak dancer generally wear ghaghra, choli-orna.

2. **Kathakali:** Kathakali is well known south – Indian dance from Kerala. It is a folk dance of Malabar area in Kerala. Here story is performed by music and dance in Kathakali style. This power dance is generally performed by men. Make up of this dance is divided in five parts:
 - (a) Pachha
 - (b) Kathi
 - (c) Tari
 - (d) Kori
 - (e) Minukku
3. **Bharat Natyam :** The story of this dance is taken from Indian drama. Some different opinions about this dance is due to concept. Bharat Natyam is a dance which comes from Tamilnadu, South India. To perform this dance , it is divided into six parts. (1) Alaripu (2) Yotiswaran (3) Sodam (4) Bharam (5) Padam (6) Tillana. Dancer generally wears a dress like ‘Pajama’. Here brooch used by the dancer is symbol of sun and moon.
4. **Monipuri :** This dance is performed from the state of Monipur. A State of northern side in our country. Previously this dance composed from the story of ‘Shiva Parvati’. Now it is composed from the story of Radha-Krishna. One of importance part of this dance is Rasa, ‘Khol, Mridanga & Mandira used to perform this dance. Men wear dhuti, tupi, pagri and women wear ghaghra & orna in this dance.
5. **Natabari :** Lord Sri Krishna is also famous in the name of natabar. It is also a part of Kathak dance where story is composed from the life of lord Sri Krishna.
6. **Odishi :** This dance is one of the oldest dance in our country. This classical dance is generally performed by ‘Devdasi’. This dance is divided in six parts:
 - (a) Bhumi –Pranam
 - (b) Batunritya
 - (c) Istodeva Bandana
 - (d) Pallavi Nritya
 - (e) Tarijham
 - (f) Moholadho

Dancers wear Pottosari, Kankar, Ketaki-korak, Pahara, Bakulkulika, Cchopsarika, Nagpash, Mathamoni in this dance .

7. **Kuchipudi :** This dance comes from village ‘Kachhipadi’ on the bank of river Krishna in Andhra Pradesh. This dance is performed by men. Instruments – Violin, Mridanga & Beena are used to perform this dance.
8. **Mohini Attam :** This is a dance which comes from South India. The story of this dance is mainly to pray and love God. There are some similarity with Bharat natyam , Kathakali and this dance. This dance is performed in a specific area with slow rhythm.

9. **Rabindra Nritya :** This dance is performed with the songs of Rabindranath Tagore. In Rabindra Nritya some contents comes from Manipuri and Odishi dance. Generally dancers wear sari in this dance though it is not a classical dance therefore, dancers are given liberty to perform.

Folk Dance (Different State in India)

In our country all the States have separate culture and heritage. Every State has own folk dance. Among them the dances from Assam, Bihar, Rajasthan, Gujrat, Tamilnadu, Orissa and Madhya Pradesh are famous.

Assam : ‘Bihu’ is the main folk dance in this area. It is a group dance. Instruments used generally are Dhol, Flute singa to perform this folk dance.

Bihar : Here folk dance story are taken from the story of ‘Ramlila’, ‘Kunharash’, ‘Kadamlila’, ‘Nachni’, ‘Jhumur’, hoti are also folk dances of this area.

Rajasthan: ‘Dandia’, ‘Rashia’, ‘Jhumur’ are the main folk dances in this area.

Gujrat : ‘Garba’ is the main folk dance in Gujrat.

Tamilnadu : ‘Kurubhanji’ is main folk dance in Tamilnadu. This dance is performed by ‘Yabar’ Group.

Orissa : ‘Santali’ dance is main folk dance in ‘yadu’ dance from Mundari group and ‘Karak’ dance from Bhuina group are also famous fold dance in this area.

Madhya Pradesh : ‘Karma’ is a special folk dance in this area. This dances is performed generally by the Tribal group. Both men and women participate in this dance.

In addition to these regional techniques of dances. There are dances of Nagaland and Sourastra.

Nagaland : There are different types of dacnces like KARUI, JEVI and KROMIRALINS, both males and females participate the dances with dresses having wide range of colours and with different types of ornaments.

Sourastra : Sourastriya dances are of three types – (i) Dandiy Raas (ii) Garba & (iii) Gophgunthan.

Gharana: Sangeet (Music, Band and Dance) is performed by the different artists from different parts of our country by their own culture and heritage. It is known to us ‘Gharana’. Guru or Gurukul forms from this different gharana. A student taught by his ‘guru’ tries to keep and perform his style or gharana through performance. Some of gharana are Delhi gharana, ‘Lucknow Gharana’, ‘Bishnupur gharana’.

Make up : Make up is one of the important part of dance. To perform dancers wear proper and well dress with proper makeup. Both dress and make up depend on the subject of the dance as well as gharana. A dancer must take attention for proper makeup.

1.5.6 Importance of Dance Teaching at elementary level

To teach a good lesson to children is the joyful objective of the Primary Education. Sangeet (Music, Band, Dance) is the best media through which a children can easily make themselves happy. Though “Dance” is our subject, here is given some reason by which children can grow up with happiness by dance.

- (1) Endless joy.
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- (3) To know about the culture of the particular place and their surroundings.
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- (5) To develop spiritualism
- (6) To develop rhythm concept
- (7) To build up a good character and strong mind set up.

Apart from this, dance helps the children how to be a good humanitarian.

Q. Write against the following statements ‘yes or ‘no’.

1. ‘Ghungur’ is used in Kathak dance.
2. ‘Jhumur’ is a folk dance of Bengal.
3. ‘Kathakali’ is a dance coming from North India.
4. ‘Chhou’ dance is performed by women.
5. One of the folk dance is ‘Bihu’.

Ans. (1) ! (2) ! (3) ! (4) ! (5) !

Questions :

1. Write down the name (one) of the Bengal Folk dances.
2. From where does the dance “Bharat Natyam” comes ?
3. Write down name of one of the famous Kathakali Dancer?
4. Where is ‘Raybeshe’ situated ?
5. Write down the name of a dance book?

Answers :

1. ‘Chhou’
2. South India
3. Guru Gobinda Kutti
4. Birbhum District
5. Natya Sastra.

Write down yes or no (some songs)

1.	Mora Eki Brinte	Patriotic	Yes
2.	Ban Esehhe	“	Yes
3.	Ore bhai phagun legehhe	Seasonal	Yes
4.	Megher Kole rode	“	Yes
5.	Amra Chas kori	Folk Song	Yes

6.	Sob Kaje hat lagai	“	Yes
7.	Aro Aro Provu	Prayer	Yes
8.	Ananda Loke Mangala Loke	“	Yes
9.	Sabare Kari Ahobhan	Function	Yes

Name of the some dancer :

Bharatnatyam (Tamilnadu) Ruxni Deve, T.Kala. Saraswati, Sankar Menon, Indrani

Kathak (North India) Shambhu Maharaj, Sitara Devi, Birju Maharaj

Kuchipudi (Andhra Pradesh) Sova Naidu, Radha Reddy, Yamini Krishnamurthi.

Manipuri (Manipur) Rita Devi, Sabita Mehata, Nirmal Mehata

Mohiniattum (Kerala) Bharati Shivagi, Kaladeve, Hema, Gita Nayak

Oddisi (Orissa) Kelucharan Mahapatra, Sonal Mamsingha

1.6 Drama

Down the ages man used different sounds and physical expressions as a part of recreation. These were ultimately used in different religious, matrimonial and festive occasions. In contact with urban civilization these techniques turned into drama. Drama reached a height in Greece. Sofocles and Europedes are some noted dramatists for their outstanding works. In India drama has been developed from dance. The root of drama in India owes its origin to ancient religion. Sanskrit drama originated long before, probably in the third and fourth century B.C . On the evidence of the drama composed by Vass, Aswaghosh was contemporary of Vass. Sanskrit drama entertained a few elites but Greek dramas entertained a large mass under the sky. The drama Kumar Sambhava, Sakuntala etc had developed the Sanskrit literature.

1.6.1 Objectives : The origin of Indian theatre is closely related to ancient rituals and seasonal festivities of the country. Hindu theorists from the earliest days conceived of plays in terms of two types of production: Lokadharmi (realistic), which involved the reproduction of human behaviour on the stage and the natural presentation of objects.

1.6.2 Implementation of Drama in Educaion : “ The use of theatre as an effective means of educating young people has its basis in key psychological theories. Sociocultural theory stems from the work of Vygotsky and Bandura. Vygotsky proposed learning was embedded within social events and occurred as individuals interact with other human beings, objects and events in the environment and this interaction

helps the child learn what is important in their culture. Similarly, Bandura [9] emphasised the importance of observational learning whereby children model behaviours, attitudes and emotional responses of others according to the observed benefits and adverse effects of those behaviours. Sociocultural theory suggests that individuals' cognitive developmental processes and learning processes are simply products of their society and culture. It can provide experiential learning opportunities for children that are particularly powerful because of the influence theatre has on the audience member's emotional and cognitive state “

1.6.3 An eminent Drama Personality :

Sombhu Mitra (22 August 1915 – 19 May 1997) was a legendary Indian film and stage actor, director, playwright, reciter and an Indian theatre personalities, especially Bengali theatre, where he is considered a pioneer. He remained associated with Indian People's Theatre Association (IPTA) for a few years before founding *Bohurupee* (1948), theatre group in Kolkata in 1948. He is most noted for his films like, *Dharti Ke Lal* (1946), *Jagte Raho* (1956), and his production of *Rakta Karabi* based on Rabindranath Tagore play in 1954 and *Chand Baniker Pala* his most noted play as a playwright.



In 1966, the Sangeet Natak Akademi awarded him with its highest award, the Sangeet Natak Akademi Fellowship for lifetime contribution, then in 1970, he was awarded the Padma Bhushan, India's third highest civilian honour, and in 1976 the Ramon Magsaysay Award.

Born in Calcutta (now Kolkata), India, on 22 August 1915, Sombhu Mitra was the sixth child of three sons and four daughters born of Sarat Kumar Mitra, an employee of the Geological Survey of India, and Satadalbasini Mitra. His mother died when he was 12 years old.

He started his schooling in Chakraberia Middle English School, Calcutta and later continued in the Ballygunge Government High School, Calcutta, where he developed interest reading Bengali plays and became active in school dramatics. He joined St. Xavier's College at the University of Calcutta in 1931, and soon started attending the local theatre.

His first appearance in Bengali theatre was in Rangmahal Theatre in north Kolkata in 1939, thereafter he moved to the Minerva, Natyaniketan and Srirangam theatres.

In 1943, he joined Indian People's Theatre Association (IPTA). In 1944, several old theatrical conventions were broken when the play *Navanna* written by Bijon Bhattacharya and co-directed by Sombhu Mitra for IPTA was staged. In 1948, Sombhu Mitra formed a new theatre group, Bohurupee in Kolkata, which ushered the group-theatre movement in West Bengal.

He married Tripti Mitra née Bhaduri, who was also a celebrated personality in the Bengali theatre. Their daughter, Shaoli is a noted actress, director and playwright.

Under Sombhu Mitra's direction, the Bohurupee staged several successful productions. In December 1950, the Bohurupee presented three plays in the New Empire theatre – Tulsi Lahiri's *Pathik* and *Chenda Tar* and Sombhu Mitra's own creation, *Uluhagra*. In 1954, Rabindranath Tagore's *Rakta Karabi* was staged by the Bohurupee, followed by his *Bisarjan*, *Raja* and *Char Adhyay*. Other notable productions

include Bidhyak Bhattacharya's *Tahar Namti Ranjana* and *Kanchanranga*. Under his direction, this group also presented the Bengali adaptations of several well-known dramas from the world stage. Henrik Ibsen's *Putul Khela* (Doll's House), *Dashachakra* (An Enemy of the People) and Sophocles' *Raja Oidipaus* (Oedipus Rex) are notable amongst them.

In these productions he performed as *Rahimuddin* in *Chenda Tar*, *Atin* in *Char Adhyay*, *Binod* in *Ulukhagra*, *Tapan* in *Putul Khela*, *Dr. Purnendu Guha* in *Dashachakra*, *Oidipaus* in *Raja Oidipaus*. He died in Kolkata on 19th May, 1997 at the age of 82.

Sombhu Mitra received many national and international awards, which include the Crystal Globe for *Jagte Raho* at the 1957 Karlovy Vary International Film Festival, the *Desikottama* from Visva Bharati University in 1989, an honorary D. Litt from both Rabindra Bharati University and Jadavpur University in Kolkata, the Ramon Magsaysay Award in 1976 for journalism, literature and creative communication arts and the Padmabhushan in the same year. He received the Sangeet Natak Akademi Fellowship in 1966. For his contribution in the movies, he won the Grand-Prix Award at the Karlovy Vary International Film Festival. Madhya Pradesh Government honoured him with *Kalidas Samman* (1982–83).

National Film Awards

- 1956 – Certificate of Merit for Best Feature Film in Bengali – *Ek Din Ratre*

Theatre of different techniques

Prosenium theatre: Here the audience used to enjoy different scenery and see the actors through windows.

Third Theatre: In third theatre the dais is open on all sides where the audience can sit. This type of theatre was intended for road show, field show etc. In West Bengal Badal Sarkar is pioneer of this type of theatre.

Yatra: This is a very popular theatre in Bengal. Since the time of Chaitanyadeva 'devotion movement' took its place as a theme of such theatre.

Alcap: This is another folk theatre of Bengal particularly, in Mushidabad & Birbhum. This involves 10-12 actors of which one is **guru** and two or three are young chaps. This theatre also represents the social problems before audience.

Gambhira: It is also a folk theatre. It starts with the worship of Lord Shiva. Among the other characters grandfather and grandchildren are there. It represents very crucial social problem in satire form. This theatre is more prevalent in Malda district.

What is Drama?

What is Drama: 'Drama' is a unique tool that explores and expresses human feelings spontaneously. Drama can have the benefits on child development when applied functionally within a classroom. Drama has the potential, as a diverse medium to enhance cognitive, affective and motor development. In our childhood we all have heard the story of the 'Cowboy and the tiger'. Thereafter, whenever we have told a lie to the elders they have warned us that telling a lie is a serious offence - as a result of which we might have face the same fate as the Cowboy. Thus, based on such story which has ethical value if we can arrange a drama and perform it before the elementary students they can easily understand the inner message it conveyed that the habit of telling lie is a punishable offence and everybody should always stay aware of it and tell the truth. Thus, it becomes a refined skill in itself. It is such a tool which is flexible, versatile and applicable among all areas of curriculum and through its application as a tool in the classroom it can be experienced by all students.

Creative Drama

Creative drama is an improvisational, non-exhibitional, process-oriented form of drama, where participants are guided by a leader to imagine, enact, and reflect on experiences real and imagined. Creative drama takes children's to natural world, creative play, and develops it further, using theatre techniques, to create learning experiences which are for the participants. Drama is largely concerned with experience by the participants and is largely concerned with communication between actors and an audience. Participation in creative drama has the potential to develop language and communication abilities, problem-solving skills, and creativity to promote a positive self-concept, social awareness, empathy, a clarification of values and attitudes.

Dance drama: A drama in which all the action of performing arts is expressed by dancing is called dance drama. A pre recorded topics or music based on a specific theme is played and the dancers perform accordingly. It is also a very interesting part of performing arts.

Some points for selecting drama:

Every drama should have a take-home message.

Expensive drama may be avoided.

Street theatre, third theatre or open theatre may be selected.

No. of characters should be optimum.

Audio drama may be selected

Simplicity should be in dress and dais.

Check your Progress:

a) How many part of the Music?

b) Name two dramas in Sanskrit

c) Name some Folk dances of Bengal?

d) Write an example of Samopadi and Bisomopadi Tal?

1.7 Text Book Based Integrated Approach

This poem should be recited with rhythm and action before the students of class IV citing different components of our environment before starting of environment related discussion. Again the mentioned components of environment may be presented with a tune & action. The importance and properties of the different parts of our environment should be made known to the students so that they will be encouraged

to develop themselves property. This song may be integrated with mathematics by counting the letters/ words per line. Then sum up all the words or letters of the whole poem. In this way learners will get a chance to practice summation.

Example

Name of the teacher _____

Subject — Song based poem

Name of the School _____

Subject in particular — 'Sabar Ami Chhatra'

Class — Four

Today's lesson — "Akash Aamay.....Matro"

Desired learning efficiency

The learners will be able to recite the poem with tune and rhythm giving proper emphasis on the legends and punctuation.

The students will be engaged in such type of activities so that they will learn in interesting way. They will be helped to construct their knowledge citing examples from the text books and from the real world.

Learning Teaching Materials

Blackboard, Chalk, Duster, Harmonium and rhyme chart.

Declaration of Today's lesson

"Today we will learn a song based poem". — saying this the teacher will declare today's lesson in the class.

The student will be asked to recite the poem in chorus with proper rhythm and Tune.

Preparation/Role of the teacher

The teacher will enter the class in time in smiling face with LTMS and then arrange the class accordingly. After that the teacher will exchange greetings and ask some questions based on their pre-acquired learning efficiency and for the creation of enthusiasm and zeal.

The teacher will assure participation of all the students by some formal & informal communication and will proceed, towards the lesson as per planning.

The teacher will ask the following questions to the students.

Do you listen song in your home?

Do you learn how to sing your home?

Who among you can sing?

Presentation (Matter of the poem)

We learn. We grow in our world. But not the education only helps us to grow. We get a lot from our mother and nature (mother land) and develop our consciousness gradually as we grow up. We develop our perception later in the light of learning these experiences enrich us. The teacher will highlight those points which the learners will imitate and follow they being influenced they will be able to develop their value oriented behaviour/practice.

Sabar Ami Chatra

Sunirmal Basu

Akash Amay Siksha Dilo	Apon Bege Chalte,
Udar Hate Bhaire	Mathir Kache Sahisnuta
Karmi Habar Mantra Ami	Pelam Ami Shiksha,
Bayur Kache paire	Apon Kaje Kothor Hote
Pahar Sikhay Tahar Saman	Jharna Tahar Sahoj Gane
Hay Jeni Bhai Mano Mahan/Manno	Gan Jagalo Amar Prane,
Khola Mather upodesha	Shaymlanani Sarasata
Dilkhala Hai Taire,	Amay Dile Viksha,
Surjo Amay Jantrona Day/Dai	Biswajora Pathsala Mor,
Apon Teje Jalte,	Sabar Ami Chatra,
Chand Sikhalo Haste Mithe	Nanan Vaber Nutun Jinish
Madhur Katha Bolte	Sikchi Dibaeratra,
Inggite Tar Sikhay Sagar,	Ai Prithibir Birat Khatay
Antar Hok Ratno Akar,	Pathya Je Sab Patay Patay
Nadir Kache Siksha Pelam	Sikchi Se Sab Koutohole
	Sandeho Nai Matro—

Lesson Demonstration	Activity of the teacher	Student's response
Tal - Dadra Matra - 6	<p>The teacher will organize the class in disciplined way for singing nad proceed in the class.</p> <p>The teacher will hold the poem chart in appropriate place and recite the poem with rhythm and tune in correct pronunciation and giving emphasis on the punctuation marks. He/she will ask the students to listen attentively, then ask them to recite the poem in chorus. After that the teacher will ask few question based on the poem to assess their understanding and also encourage the learners to enquire</p>	<p>The students will listen the poem attentively ask some questions and recite the poem in chorus as per the direction of their teacher. Then they will recite the poem one by being directed by their teacher. When one student will recite all others listen to her/him.</p>

Evaluation

The teacher will ask some question to the students from the text and nontextual material from the real world to justify their desired level of learning.

- | | |
|---|---|
| 1. Who wrote this poem. | 1. Sunirmal Basu |
| 2. What the poet learnt from whom. | 2. Sky, Air, Hill, Sun Soil, River, Stream etc. |
| 3. Who taught the poet to speak in a sweet tone? | Taught the poet. |
| 4. How many lines are there in the poem? | 3. Moon taught the poet to speak sweetly. |
| 5. How many words are there in the first two lines | 4. 32 lines. |
| 6. Count the words in first four lines of the poem and state how many prime numbers are there? | 5. 36 words. |
| 7. Multiply the total count number of the first four lines with 1,2,3,4 and 5 and write down the resultants | 6. Total no. of words is 14. The prime number between 1 & 14 are 2,3,4,5,7,11 & 13 total - six nos. |
| | 7. 14, 28, 42, 56 & 70 faire, Hoi, Katha, Bege, Diksha. |

Board Work

Rhythm : 3/3	1	2	3	4	5	6	1
	Dhin	Dhin	Na	Na	Thun	Na	Dhin
+	0						+

Home work : The teacher will reinforce the students for their good singing, then clean the board, take out the LTMS and closure the class.

An example of integrating

'Khara Bayu Boy Bege...' Song with other subjects LTMS – Picture of a boat, Art paper containing a part of 'Khara bayu boy bege' song, picture showing boating.

Observation :

Asking questions showing the picture of a boat.

Asking questions showing the picture of a boating to point the boatman, his position and paddle.

Chart showing the song ... [PARTICIPATION]

Contextualization :

It is an attempt to open the gateway to the lesson through question answering and creating interest to the students.

[QUESTIONING AND EXPERIMENTATION]

1. Who among you has enjoyed boat riding? How fun it is?
2. Who drives the boat? What they hold in their hand? How they drive?
3. Do the boatmen emits any sound from their mouth while driving?
4. There is a story of boat driving in a song in your text book. Do you remember the song?
5. Have you ever driven any boat?

Cognitive apprenticeship :

It is an attempt to explore the arena of knowledge of the learners

[QUESTIONING AND EXPLANATION]

1. Can you say the material by which a boat is made?
2. Why the boat not sink in water? What other things float on water?
3. What is needed to make paddles of boat?
4. Which parts of our body works in boat driving?

The students will be grouped in several groups as per the direction of their teacher and will be getting interested to learn the mechanism of boat driving, boating song profession of boat man through interaction in group.

Now the teacher will say, 'You look at the chart and Read out the write up : sing the Song who can. Then you all Join with me in chorus.

'Khara bayu boy bege'

Collaboration

The teacher will help the students to sing the song and to understand the inner meaning.

(EMPATHY AND CO-OPERATION)

Interpretation construction

Let us go to the field. Stand in queue. Now form a circle. Start with me. Students will follow their teacher in serpentine movement and circle formation. Now stop. Hold your hands each other. Say 'Hat dhari dhari.....Hat chari chari.' Now all of you sit on the ground and stretch your legs forward. The teacher will sit in the same posture in the centre. Imaging, we all are now boatman. We are driving our boat. The boat is floating on the water. We are holding the paddle. The boat is pendulating. Now we all drive our boat. At first you observe me. Then try. The students first observe their teacher's action then follow. They will be singing. 'Khara bayu boy bege' rhythmically with the action of boat driving.

(EMPATHY AND CO-OPERATION)

Multiple interpretation and Multiple Manifestation :

The students will present the matter indifferent alternative medium. They will innovate and execute additional alternative activity through Chart, Picture, Graph, Model, role play, Drama, Minw quiz etc. They will be able to relate the different mechanics and different events/incidents of boat driving with social life. They will be able to understand that a general principle is coming out from the work they are doing in the following way :

- I. They will be able to drive the boat in any situation if needed.
- II. They will be able to play the role of boatman in drama or mine.
- III. They will be able to draw the pictures of boat driving sequentially.
- IV. They will be able to state the functions of different organs of our body.
- V. They will be able to comprehend the general rules of boat driving.

Now let's say, why we are imitating boat driving? The students will try to explain up to their competency level and the teacher will help them to give the right answer.

(EXPLANATION AND AESTHETIC EXPRESSION)

Multiple interpretation and Multiple Manifestation

While participating in this imitation type game (boat driving), the students will try to explain the matter by interacting each other in inter group and intra group discussion and they will try provide adequate information in support of their answer. They will be knowing the importance of data collection. They will realize the importance of the shape of the boat in floating and movement in water. They will resemble this shape with the shape of fish. They will be able to explain the mechanism swimming in human being and will be enthusiastic in developing their body for swimming.

(AESTHETIC AND CREATIVE EXPRESSION)

1.8 Let us sum up

In this segment Drama, Music and Art have been discussed along with their usage.

1.9 Unit and Exercise

- (a) Name two greek Dramatist.
 - (b) Write up a memorable person of Indian instrument?
 - (c) Write up a eminent person of music?
 - (d) Write the different forms of Theatre?
 - (e) Importance of Dance teaching at elementary level?
-

1.10 Answer check your progress-1

- (a) Four types. Sthai, Antara, Sanchari, Avog.
- (b) “Kumar Samvav and Shakuntala”
- (c) Baul, Chhou, Jhumur, Raibeshe.
- (d) Samopadi Tal– Dadra
Bishomopadi Tal– Jhamp Tal.

Unit – 2

Visual Art

STRUCTURE :

- 2.1 Introduction
- 2.2 Objectives
- 2.3 Drawing & Painting
 - 2.3.1 Three dimensional shapes of various objects
 - 2.3.2 Composition
 - 2.3.3 Experimentation with different methods and materials of Visual arts.
 - 2.3.4 Writing Bengali & English alphabets in various ways
- 2.4 Collage.
- 2.5. Paper Work
 - 2.5.1. Paper cutting
 - 2.5.2. Origamy
 - 2.5.3. Paper Mache
 - 2.5.4. Paper & card board work
- 2.6. Clay work
 - 2.6.1. Making three dimensional objects
 - 2.6.2. Relief work
 - 2.6.3. Making of clay toys,fruits,animals etc
- 2.7. Graphics
 - 2.7.1. Woods cut or Lino cut
 - 2.7.2. Print of potato & ladies Finger
 - 2.7.3. Stencil
 - 2.7.4. Palm and finger prints:
 - 2.7.5. Mono print
- 2.8. Let us Sum up
- 2.9. Unit & Exercise
- 2.10. Answer to check your progress

2.1 Introduction

Art is the manifestation of one's inner emotions expressed in colour, forms, lines and rhythm. Its aesthetics lie in the balancing of these elements and their expression. The word "ART" is a holistic approach to all art forms, creative and performing. It is present and as well is sourced from our day to day life. Thus creativity and artistic sensibility is embedded in every child. Only the expression may differ in medium like literature, craft, drama, dance, music etc.

What is painting? Painting is the two dimensional representation of an object or thought within a specific space and frame as per Rabindranath Tagore– "Painting is an absolute witness to the existence of directness. The more specific it is, more unique it becomes. One can't judge how good or bad a painting is."

Every painting has a focal point around which the objects are arranged and organised into a composition of unity and Harmony.

From line drawings to water colour, pastel, oil colour & various other mediums may be used on various surface to create a painting.

Sculpture:

Sculpture is a more laborious endeavour than painting. It gives a more concrete imagery to the beholder and also creates a permanent impact. As painting can be seen only from the front and a sculpture can be perceived from all 360 degrees. Sculptures are three dimensional, have surface values, plasticity and textural quality.

Architecture :

Creating a structure in a definite environment or in relevance to cultural heritage to cater to the need and utility of purpose is Architecture. Architecture has two purpose, beauty and utility. The building of two aspects are ornamentation and structural uniqueness.

Art & craft.

These 2 creative arts are limited within colour, paper, canvas, brush, cloth, clay, wood, board etc. Art is the expression of mind thought & emotions but crafts are for selling in the market. Idea & skill is present in both. In the primitive era there was no difference between Art & craft. But later on painting, sculpture, print etc. defined as Fine Arts and Jute art, terracota etc. came under craft.

2.2 Objectives :

- Achieving distinct idea of the various Medium and Method of Art & Craft through hands on work experience.
- Enhance the skills of Art and craft.
- Know the distinct feature and Methodology of various Art & Craft.
- Great attraction for Art & Craft.

2.3 Drawing and Painting :

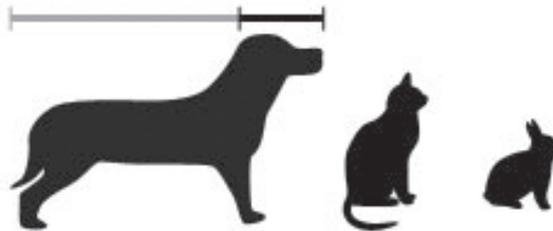
To create a painting one needs to have the basic ideas/knowledge about the basic aspects of painting, for example, without the knowledge of perspective one can't define far and near in a painting. Composition is also an important part of the process of creating painting.

Four basic Ideas of Drawing and Painting

- (a) Scale & Proportion
- (b) Perspective
- (c) Light & Shade
- (d) Composition

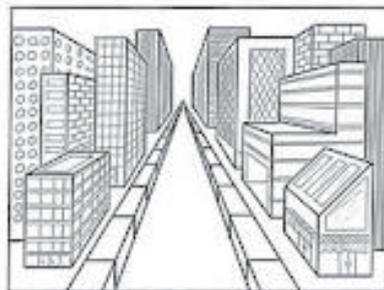
(a) Scale and Proportion

It is important to know the ratio of proportion of one object from another. For example, Ratio between a glass & a standard bottle, a bottle is almost twice the size of a glass. Without a sense of proportion one cannot create a good drawing. A cat will be smaller in proportion than a dog, and a rat even smaller.

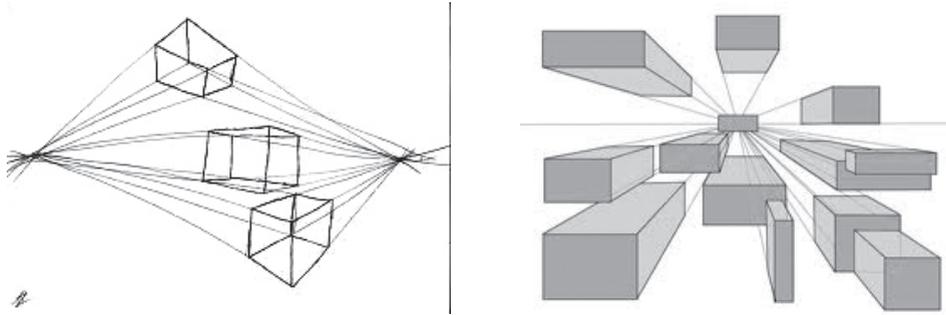


(b) Perspective.

Perspective in a drawing is very important. Though many a times proportion and perspective is confused as one and the same, they are distinctively different. Perspective defines that the nearer object is larger than that which is far. An object seems smaller the farther it is moved from our eyes. Perspective is also used to bring out the density in a painting. The drawing below is an example of perspective of rows of houses from near to far.



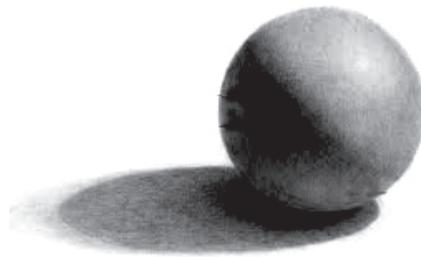
Horizontal line, vanishing point and eye-level are important elements of perspective. The picture below shows a box from different angles/view point.



An object looks different when seen from different sides or angles. The view from top (birds eye view) will not be same as when seen from beneath or eye level. Perspective changes when the position of the object is changed.

(c) Light and shade

Light and shade is also an important part of painting. The presence of light & shade is there in each and everything that we see. If the sun is the source of light on an object the side facing the sun will have light on it and shadow will be on the other side. Besides drawings the density of a painting is also defined by its light and shade. It is with this light and shade that imagery illusion in a painting is created

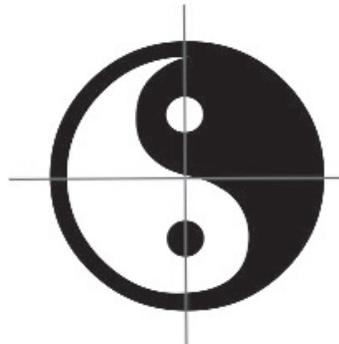


(d) Composition

The importance of composition in a painting is infinite. To make a good painting we have to place the objects in the painting properly. For a perfect composition three aspects are to be maintained namely (1) Balance, (2) Focus, (3) Unity.

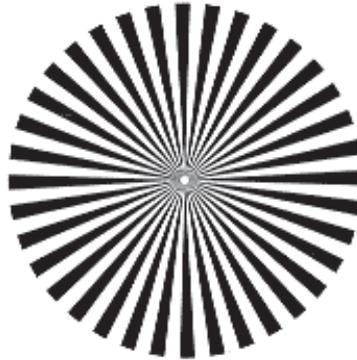
Balance : In a painting the balance amongst Form, colour and subject is important.

No composition is complete in a painting without proper Balance. Pic below shows balance in a composition.



Focus :

Every painting has a focal point or focus. Whenever we see a painting a certain focal point/focus attracts our attention. The entire painting is built around this point.

**Unity :**

In a painting besides balance, focus and unity is also very important. There should be a unity amongst colour, form and subject.

2.3.1. Three Dimensional Form of Various Objects

Materials : Art paper, erases, drawing board, colour (Pastel, pencils of different shade, poster, colour)

Method : On $\frac{1}{4}$ of the Art paper draw the form of any object. The dimensions are brought out by given light and shade & colour to the drawing as per the light and shade on the object. By using perspective, light & shade etc. the 3 dimensional effect is brought out. This should be practised by drawing real object placed in front. It is called drawing “Still life” in art. This gives one a clear idea of colour and light & shade.

Objective : Idea of drawing various objects like fruit flowers, geometric pattern, flower vase, glass, bird, human beings etc.

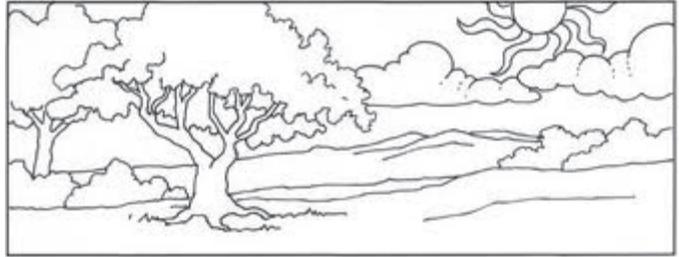
Using light & shade to give 3D effect.

2.3.2 Composition :**Objective :**

- Learn to draw landscapes
- Idea of depth, front & rear in painting
- Achieve knowledge regarding the composition of a painting

Materials : Art paper, brush, paints, water container, board, pencil, eraser, clip etc.

Method : On $\frac{1}{4}$ Art paper make a pencil drawing of a landscape or scenery with a river. Then colour it accordingly. Pastel or water colour may be used. One may use opaque colours too.



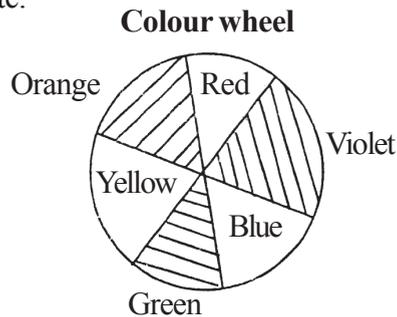
Application of colour

To colour the above drawings knowledge of colours is required. There are two types of colour.

- (1) Primary colours/Basic colours
- (2) Mixed or Secondary colours

Primary colour : Colours that are pure and have their own existence are called Primary colours. They cannot be prepared by mixing of basic colours. There are 3 primary colour – Red, Blue & Yellow.

Mixed/Secondary colours : Colour obtained by mixing two or more colours are called secondary colours. Eg.–Orange, green, violet etc.



Colour obtained by mixing three basic colours of the colour wheel are:

Red + Blue = Violet

Blue + Yellow = Green

Red + Yellow = Orange

Here are some more secondary colours

Blue + White = Sky Blue

Red + White = Pink

Red + Black = Brown

Black + White = Grey

Blue + Black = Blackish Blue

Blue + Green = Dark Green

Red + Brown = Light Brown

In this manner when white is mixed, the hues become lighter and dark when black is mixed.

Complimentary/opposite colour :

By mixing two primary colours of the colour wheel one secondary colour is achieved. The remaining third primary colour is the complementary or opposite of the achieved secondary colour. Eg.

Red → Green (Blue + Yellow)

Yellow → Violet (Red + Blue)

Blue → Orange (Red + Yellow)

Warm Colour :

Colour that are too bright and almost hurt the eye are called warm colours. Example: Red, Yellow, Orange etc.

Cool colours: Colours that are mellow and soothing to the eyes are called cool colours. Example: Green, Blue etc.

Colours available in the markets have specific name. Knowing them helps in procuring the required colour. Usually these names given on the basis of its source. Here are a few names :-

Red : Vermillion, Scarlet, Crimson, carmine, Rose Matter

Blue : Indigo, Cobalt Blue, Ultramarine Blue, Prussian Blue, Cerulian Blue

Yellow : Lemon Yellow, Chrome Yellow, Cadmium Yellow, Yellow ocher, Gamboge, Naples Yellow

Green : Viridian green, Sap green, Chrome green, Terra Verde

Brown : Burnt umber, Raw Umber, Burnt Sienna, Raw Sienna, Sepia, Indian Red, Light Red.

Colours can be prepared by mixing glue / fixative to colour pigments.

Use of Brush

There are various types of brushes Hog hair brushes are used for oil Colours and sabale hair brush is used for water colour. Here we shall discuss sabale hair brush. There are two kinds of sabale hair brush (1) Round (2) Flat. In case of "Round brush" to draw thin lines double or triple zero brushes are used. The brushes get thicker along with their numbers in ascending order eg. 0, 1,2,3,4,5,6,7,8,9,10 etc. Flat brushes have either long handles or short handled, long handled flat brushes are numbered from 1 to 18-20. Short handled flat brushes are available from ¼ inch wide to 3 inches wide.

2.3.3 Experimentation with different methods and materials of Visual arts.

PASTEL

A **Pastel** is an art medium in the form of a stick, consisting of pure powdered pigment and a binder. The pigments used in pastels are the same as those used to produce all colored art media, the binder is of a neutral hue and low saturation. The color effect of pastels is closer to the natural dry pigments than that of any other process. The name "pastel" comes from Latin word *pastellus*.. Pastels have been used by artists since the Renaissance, and gained considerable popularity in the 18th century, when a number of notable artists made pastel their primary medium. Édouard Manet painted a number of portraits in pastel on canvas, an unconventional ground for the medium. Edgar Degas was an innovator in pastel technique, Odilon Redon produced a large body of works in pastel.

Pastel sticks or crayons consist of pure powdered pigment combined with a binder. The exact composition and characteristics of an individual pastel stick depends on the type of pastel and the type and amount of binder used. It also varies by individual manufacturer.

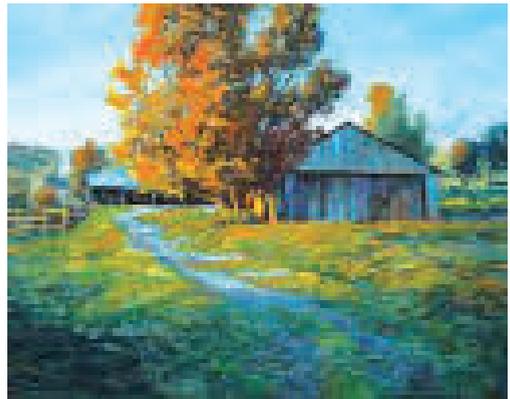
Dry pastels have historically used binders such as gum arabic and gum tragacanth Methyl cellulose was introduced as a binder in the twentieth century. Often a chalk or gypsum component is present. They are available in varying degrees of hardness, the softer varieties being wrapped in paper. Some pastel brands use pumice in the binder to abrade the paper and create more tooth. Pastel media can be subdivided as follows:

1) Soft pastels, 2) Medium Pastel 3) Hard Pastel

Pastel supports need to provide a “tooth” for the pastel to adhere and hold the pigment in place. Pastels can be used to produce a permanent work of art if the artist meets appropriate archival considerations. This means:

- Works are done on an acid free archival quality support.
- Works are properly mounted and framed under glass so that the glass does not touch the artwork. This prevents the deterioration which is associated with environmental hazards such as air quality, humidity, mildew problems associated with condensation and smudging.
- Some artists protect their finished pieces by spraying them with a fixative.

Pastel techniques can be challenging since the medium is mixed and blended directly on the working surface, and unlike paint, colors cannot be tested on a palette before applying to the surface. Pastels have some techniques in common with painting, such as blending, masking, building up layers of color, adding accents and highlighting, and shading. Some techniques are characteristic of both pastels and sketching mediums such as charcoal and lead, for example, hatching and crosshatching, and gradation. Other techniques are particular to the pastel medium.



- Colored grounds: the use of a colored working surface to produce an effect such as a softening of the pastel hues, or a contrast
- Dry wash: coverage of a large area using the broad side of the pastel stick. A cotton ball, paper towel, or brush may be used to spread the pigment more thinly and evenly.
- Erasure: lifting of pigment from an area using a kneaded eraser or other tool
- Impasto: pastel applied thickly enough to produce a discernible texture or relief
- Resist techniques
- Textured grounds: the use of coarse or smooth paper texture to create an effect, a technique also often used in watercolor painting
- Wet brushing

Advantage & disadvantages of pastels

There are many reasons to work with pastels, because they are gratifying in lots of ways. With pastels, you can achieve a wonderfully luscious, velvety texture. The deep, rich colors are easy to blend and when used well, they can have a splendid luminosity. Another advantage is that you don't need a lot of tools to work with pastels, as you would with paints.

- The biggest concern is the inhalation of pastel dust. As you rub the pastels onto the surface, inevitably tiny pastel “dust” particles will float into the air. Inhaled pastel particles can cause serious health problems.
- Pastels are not permanently fixed to the surface of the paper; they must be handled extremely carefully. Pastel art can be accidentally smudged all too easily. In addition, they can be quite messy on your fingers, hands, clothes, and work area.

WATER COLOUR

Primitive humans applied water-based pigments with fingers, sticks and whatever was naturally available; their works can be seen in prehistoric cave paintings. These paintings were sometimes drawn with ash, earth/minerals and water. The Egyptians used water based paints to letter and paint on papyrus paper, as well as decorate tombs and public spaces. The ancient Chinese also have a grand tradition of watercolor painted on silk and later on hand-made papers; the Japanese soon followed their lead. The first Chinese water-based paintings were applied with fingers.



The oldest painting medium watercolors pigments are made from ground minerals and dyed inert powder, held together generally with gum arabic made from the acacia tree. Watercolors capture luminosity and offer a range equal to and often exceeding that of other mediums. Watercolor is transparent yet can be made opaque, either for accent or over the entire surface, through repeated wash applications of pigment on a white ground generally made of paper. It is considered a “Light” painting medium as opposed to other heavy opaque mediums. In this way watercolor’s approach and application is generally opposite or the reverse of Oils and Acrylics in which the entire surface of the ground (paper, canvas, board) is completely, opaquely covered. Watercolor allows the white of the paper to show through, providing enhanced luminosity, a feeling of light superior to that of other paints. The more water in the wash of pigment, the more the light of the surface comes through. For example, a cobalt Blue will become increasingly light blue as it is thinned by water on the absorbent surface.

PROCEDURE OF WATER COLOUR

Washes The most basic watercolor technique is the flat wash. It is produced by first wetting the area of paper to be covered by the wash, then mixing sufficient pigment to easily fill the entire area. The pigment is applied to a sloping surface in slightly overlapping horizontal bands from the top down. Once complete the

wash should be left to dry and even itself out - don't be tempted to work back into a drying wash, the results are usually disastrous! A variation on the basic wash is the graded wash. This technique requires the pigment to be diluted slightly with more water for each horizontal stroke. The result is a wash that fades out gradually and evenly.

Glazing Glazing is a similar watercolor technique to a wash, but uses a thin, transparent pigment applied over dry existing washes. Its purpose is to adjust the color and tone of the underlying wash. Non staining, transparent pigments such as Rose Madder (or Permanent Rose), Cobalt Blue are ideal for glazing as they can be applied layer after layer to achieve the desired effect. Be sure each layer is thoroughly dry before applying the next.

Wet in Wet Wet in wet is simply the process of applying pigment to wet paper. The results vary from soft undefined shapes to slightly blurred marks, depending on how wet the paper is. The wet in wet technique can be applied over existing washes provided they are thoroughly dry. Simply wet the paper with a large brush and paint into the dampness. The soft marks made by painting wet in wet are great for subtle background regions of your painting.

Dry Brush Dry brush is the almost the opposite watercolor technique to wet in wet. Here a brush loaded with pigment (and not too much water) is dragged over completely dry paper. The marks produced by this technique are very crisp and hard edged. They will tend to come forward in your painting and so are best applied around the centre of interest

Lifting Off Most watercolor pigment can be dissolved and lifted off after it has dried. Staining colors such as Phthalo or Prussian Blue, Alizarin, Windsor Red, Yellow or Blue are difficult to remove and are best avoided for this technique. The process for lifting off is simple - wet the area to be removed with a brush and clean water then blot the pigment away with a tissue. Using strips of paper to mask areas of pigment will produce interesting hard edged lines and shapes

Dropping in Color This technique is simply the process of introducing a color to a wet region of the painting and allowing it to blend bleed and feather without interruption. The result is sometimes unpredictable but yields interesting and vibrant color gradations that can't be achieved by mixing the pigment on the palette.

Advantages of Watercolor

- Mixes with water and brushes cleans with water. Paint can be lifted off by re-wetting. If paint squeezed from a tube has dried, it becomes reusable if you add water.
- Watercolors are cheap; all you need buy is a set of basic colors, a brush or two of different sizes, some paper, plus a board and brown gummy tape if you intend to stretch the paper.

Disadvantages of Watercolor

- Don't make any mistakes: The artist must think about what the paint stroke will look like before putting the brush to the paper. Watercolors are transparent and because of this, it is hard to hide mistakes. Some famous watercolour paintings are "The Red Rigi" by Turner, "Rowing Home" by Winslow Homer

POSTER COLOUR OR OPAQUE WATER COLOUR

An opaque watercolor paint with a gum- or glue-size binder called also *poster paint*. sold usually in jars —

Water colors are meant to be applied in transparent and translucent layers. The color of the paper substrate will actually be a part of the final color. Poster paints are meant to be applied in thicker, opaque layers. Opaque water colours are available in several forms including egg tempera, casine, poster colour etc. These Opaque water colours are available in ready-mixed form or in powdered form. The ready-mixed form saves of chore of mixing, , but it will dry out if not used. It is available in sets or by the jar.



The opaque water colour is not effected by the underlying colour and thus is more easily handled by the beginner who may wish to cover mistakes. If the opaque colours are used without thinning, a rich texture may be achieved; however, they may also be thinned if more of the feeling of the transparent washes is desired. This thinned opaque colour does not attain as fresh a feeling at the transparent.

Method for Opaque Water Colour :

- For opacity white is mixed with the other colours
- Thick layers of colours are used
- Paintings are done in the tempera process
- Mistakes can be rectified

PEN & INK

Pen and Ink has been a tool of artists and illustrators for many centuries. In fine art, the term ‘pen and ink’ denotes a drawing technique involving the use of black and other coloured inks which are applied to a support (generally paper) with either a dip pen or a reservoir pen. This traditional, versatile media has been used by Western artists since ancient-Egyptian times, for sketches, finished drawings or ink and wash paintings. It is also one of the main mediums involved in book illustration. Artists from several ancient cultures used ink in their fine art drawings. Drawing ink first appeared in China, about 3,000 BCE. This early ink was a combination of pinewood smoke, lamp oil, and gelatin from animal skins.



However, the medium was developed to a high degree in Chinese art during the era of Tang Dynasty arts. Indeed, pen and ink has always been the main medium of East Asian artists and calligraphers in China, Japan and Korea. Traditional Chinese painting is executed with an animal hair brush dipped in black or colored ink.

During the Renaissance era, stylus, metal point and pen with ink were considered as fine line media as opposed to the broad line of charcoal and chalks. The precise effect of pen and ink is exemplified by the virtuoso draughtsman Leonardo Da Vinci in his work *Five Grotesque Heads*.

Ink was generally applied to paper with a quill pen. The resulting line could be anything from very thin to very broad. Ink remained popular throughout the Renaissance for a wide variety of drawings from rapid sketches to detailed compositions.

Diluted ink could be applied by brush in order to shade an ink drawing.

Pen and ink was used by many draughtsmen during the Baroque, Rococo, Romantic, Neoclassical art movements and throughout the nineteenth century.

There are two basic types: dip pens and reservoir pens. Note that the nib itself is referred to as the pen, while the main shaft is called the penholder. There are tons of different shaped nibs, each of which produces different marks.

The technique of the pen is vastly different from that of any other tool the artists use, and the work done with a pen is consequently very unique. By nature it is a much harsher and a less flexible instrument than either the pencil or the brush, even though pens have come a long way. A pen drawing has a distinct individuality, no matter what kind of a technique is used, fundamentally because of the manner of getting the various tones and shadows, which is different from that in the other mediums generally used.

Check your progress

Instruction : (1) Write your answer in the space provided

(2) Check them with answer given at the end of the unit

(a) What do you understand by primary colours?

(b) Name three kinds of yellow colour available in the market.

(c) Draw a colour wheel.

(d) By mixing which colour you will get green?

(e) What are the main characteristics of painting by a transparent water colour?

2.3.4 Writing different types of Bengali and English alphabets.

Writing alphabets in various fonts is called calligraphy. In greek “Kallos” mean beautiful and “graphe” means writing calligraphy is derived from greek words beautiful writing. Calligraphy is used for writing various kinds of cards, Book cover, Posters etc.

Before the invention of the printing press calligraphy was used for scripting books, bibles, beautifying religious places and promotional papers (leaflets). Quills were used to write those ancient books. Pen is the main equipment for calligraphy. Various kinds of “Nibs” are available for these purpose.

Mainly there are three types of calligraphy.

1. Roman or Western
2. Arabic
3. Chinese or Oriental

Roman Calligraphy : Calligraphy came into use in Rome around 600 B.C. Later on the Christian Churches patronised the development of Calligraphy. During this period various fonts and their names started.

Arabic Calligraphy : Arabic Calligraphy started around 600-500 BC. The main feature of Arabic Calligraphy is geometric Islamic Art.

Chinese Calligraphy : Calligraphy done with brushes on tortoise shell and Or-bone were found in ancient china. Various writing styles were found from the period of Qin shi Huang, 220 BC.

Indian Calligraphy during the period of Ashoka (265-218 BC) were found on stone pillars and caulings. Here two styles/fonts were found. (1) Kharoshti (2) Brahmi.

Objective :

- Learn about the various styles of writing alphabets.
- Creating cards, Posters, Charts using Calligraphy
- Learning Ornamentation through writing

Method : Follow the steps mentioned below :

- (a) Space
- (b) Size
- (c) Style

(a) **Space :** First define the space and measurement of paper where calligraphy is to be done. Calligraphy depends on the subject matter. Whether it is a chart, poster or card. The importance of each letter is to be decided.

ABCDEFGHIJKLM
NOPQRSTUVWXYZ
abcdefghijklm
nopqrstuvwxyz
0123456789!/?#
%&\$@*{|\}~



(b) Size : Size of the letters is very important. First draw 2 parallel horizontal lines in pencil, so that the letters are all of the same size. The gap between two letters should always be equal. See the eg. below. Gap between A and B, B and C should be same. Similar for Bengali alphabets. If any letter is rounded off at the bottom or top they will go a bit below or above the lines. Gaps between words and between lines are to be maintained equally.

2.4 Collage

From the French word “Collar” meaning sticking pasting with glue came the collage.

Collages are prepared after pasting paper, coloured pages, cloth, wool, feather and objects with different textures on any flat surface like paper, board or canvass.

Collage started in china around zoo BC. In 10th century collages were used in poetry in Japan. In 19th century collage was seen sparingly where family pictures were pasted on walls. Collage was seen on scrap books, picture album, Lamp shade etc. Collage was used for illustration in books.

In present time collage came into vogue during early 20th century in Europe. Pablo Picasso and george Brak used collage in their **culsism** Art for the first time. Brak used it in his charcoal drawing and piccasso in oil painting. Later on collage was used in surrealist and Pop Art. There are various kinds of collage like Wood collage, decoupage, photo mantage and digital collage.



Objectives :

- Recycling of used materials
- Substitute of paints
- Creativity at low or no cost
- Development of a creative mind/mentality

PROCEDURE OF PAPER COLLAGE

Paper collage is a technique of an art production where the artwork is created using an assemblage of different forms and shapes using paper. These forms and shapes eventually create a whole image. To create a paper collage you will need:

1. A board/canvas
2. Paint and/or coloring pencils (optional)
3. Pencils/markers/pens
4. Glue
5. Paintbrush
6. Magazine Paper
7. Ruler
8. Scissors

- First, to create your paper collage, you need a place or something to put it on. Simply get a canvas board or even simpler, a sheet of wood.
- You can't create a paper collage without having something to make. Pick any picture or image that you like and base it off of that. It could be anything (an animal, nature, etc.)
- To properly transfer your image to your canvas/board, the best method is the grid method. You draw a grid on both your image and your canvas using your ruler and pen/pencil/marker.
- Now that your grid is on both your image and canvas, it's time for you to transfer that image onto your canvas. Using your pencil, copy whatever is in a certain box on the grid of your image into the same box on the grid on your canvas. This gives the picture on the canvas an almost identical transfer from the original picture.
- Now that your picture is now on your canvas, use paint, coloring pencils, or simply write the name of the colors in their desired areas. This makes it easier to arrange the colors with the paper later on.
- You now need to get some paper (preferably magazine paper). Find pages out of magazines that match the colors you are using and tear them up into small pieces. (This is where the scissors are optional depending on how you want your collage to come out. The scissors may make a cleaner cut but you may prefer the rough look tearing the paper by hand provides.)
- Using a paintbrush, lightly spread layers of glue on your canvas. This is the only way your pieces of paper will stick to your canvas.
- When your canvas is still wet with glue place the pieces of paper in there desired places (by size and by color).

IMPORTANCE OF COLLAGE IN PRIMARY EDUCATION

- Using waste materials
- Using colour magazine instead of colour
- Low cost materials
- Developing creativity

2.5 Paper Work

Paper was invented in the 2nd Century in China. Since then paper is being used for various purpose and form, eg: Paper Pulp, Paper Mache, Origamy and Paper Cutting etc.

2.5.1 Paper Cutting

The art of cutting paper symmetrically started around 6th Century in China which later on spread into Central Asia and Europe. This Chinese art of cutting paper is called Zianzhi and is used decorating house or improvement of health. In India this paper cutting is used for making stencils for floor rangoli.

Characteristics :

- Any place can be decorated easily.
- Time consumption is very little.
- Not much materials are created.

Materials : Scissors, blade, glue coloured/marble paper, Kite paper, cotton paper, handmade paper, brown paper etc.

Method

- In paper cutting the folding of paper is important.
- All designs have two aspects A) external form (B) internal continnity.
- The motive depends on the situation place of decoration.
- Two symmetrical design is obtained by a single fold and four symmetrical design is obtained by double fold.

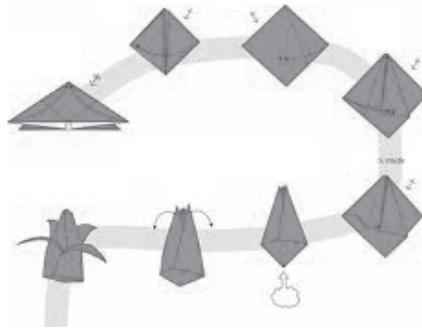


2.5.2 Origami

Origami is a Japanese word for “paper art” created by folding papers. Paper planes, boats, etc. are examples of origami.

Features :

- Origami is created by folding papers.
- Scissors, glue are not used in origami.
- Can be created easily by folding Ordinary papers.



Method :

- For Origami we need a square piece of paper
- By folding the papers in various manners birds, boats, animals can be created.
- It is important that each fold should be done properly, otherwise the next fold won't come through.

2.5.3 Paper Mache:

Paper Mache is also a kind of paper art and is quite ancient. It also represents different folk art forms for making masks, toys etc. For instance the Masks for “Choudance” are Made of paper mache.

Features :

- Any type of 3 dimensional form / shape can be achieved in paper mache.
- Objects created in paper mache are light and hollow.
- Cost is very low
- Paper Mache art works are used as props in drama, dance etc.



Materials : Clay, Modelling tools, old newspapers, colour, glue, brush, varnish. etc.

- First make a clay Model of the object.
- When the clay Model is dry cover it with a layer of small pieces of wet paper.
- Cover the first layer of paper with a few more layers using glue. More the layers the thicker it will be.

- Now dry it well under the sun.
- Now carefully separate the paper mache layer from the clay Model.
- coat it with white and then colour it.
- lastly give it a coat of varnish.

2.5.4 Paper and Cardboard work

Using paper and cardboard various Models can be made, Specially for making T.L.M.

Features :

- 3 Dimensional objects are mode easily.
- Useful products like envelope, file, pen stand are easily made.

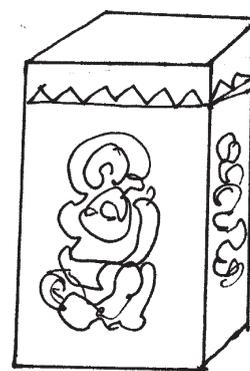
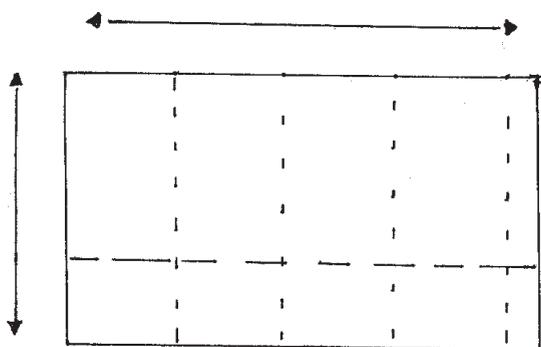
Materials : Mount Board, Paper, Scissors, Paper Cutter, glue, scale, Pencil, colour, Brushes etc.

Two examples of Paper & Cardboard work are :

Pen Stand :

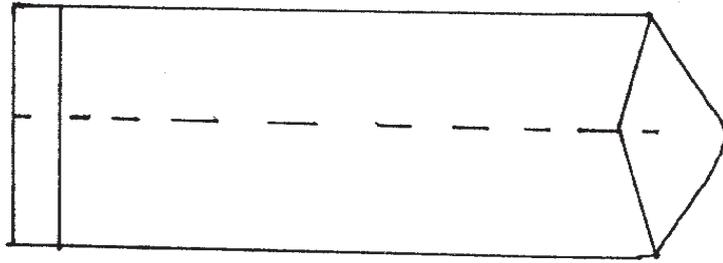
Take a $7\frac{1}{2}$ by $8\frac{1}{2}$ mountboard. leauing a single margin of $\frac{1}{2}$ inch divide the rest of 8 inchess **into 4 sections of 2 inchess** each. Draw a line along **2 inches** from bottom. Cut along the four lines upto the line drawn. Make an impression with the paper cutter on all other lines. Now fold along these lines. Apply glue on the $\frac{1}{2}$ in margin and stick it to the last section from it. Now we have the main frame of the pen stand. For the base fold -in the bottom 2" sections (which were cut), overlapping and sticking the layers with glue.

To decorate the pen stand one may wrap it in Marble, coloured or hand made paper and make designs on them.



Envelope (for office use)

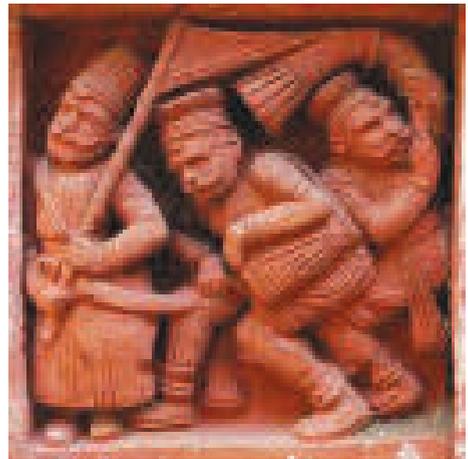
Take a 30 cm × 24 cm brown paper. length wise draw lines at 6cm and 27 cm & width wise draw line along 7 cm and 6 cm. Cut out the shaded portion. Then cut along the dotted lines. Fold along the lines and join where the folds overlap. Now you have an envelope of 9cm×21 cm.



2.6 Clay Work

Clay is a fine-grained natural rock or soil material that combines one or more clay minerals with traces of metal oxides and organic matter. Clays are plastic due to their water content and become hard, brittle and non-plastic upon drying or firing.

Clays exhibit plasticity when mixed with water in certain proportions. When dry, clay becomes firm and when fired in a kiln, permanent physical and chemical changes occur. These changes convert the clay into a ceramic material. Because of these properties, clay is used for making pottery, both utilitarian and decorative, and construction products, such as bricks, wall and floor tiles. Different types of clay, when used with different minerals and firing conditions, are used to produce earthenware, stoneware, and porcelain. Clay tablets were the first known writing medium.



There are two types of clay 1) Primary clay 2) Secondary clay

primary clay:- *once formed from the parent rock deposited at origin, so less impurities, coarse particles, less humic acid, low plasticity & low shrinkage than secondary clay.*

secondary clay:- *2ndry clay are transported and formed, so more impurities, fine particles, more humic, higher plasticity and shrinkage.*

“Hand building” is working with clay by hand using only simple tools, not the pottery wheel. Before potters had wheel, they were creating beautiful pots and clay form using clay, their hands and fingers and basic hand tools. The three most common forms of creating hand built pots: pinch pot, coiling and slab techniques.

PREPARATION OF CLAY

- Fill a container about one-third full with the soil, then add enough water to fill the container.
- Crush the wet mud between your fingers to as small a size as possible, breaking up all the clumps. Once your mixture is as lump-free as possible, allow the material to hydrate for several hours.

- Stir the mixture thoroughly, then allow it to settle for a few minutes. Clay is lighter, and floats above the heavier sediment. Look carefully as the mixture begins to settle and you will see a color change that indicates where the suspended clay particles and sediments meet. This “clay water” is what you want to keep.
- Pour off the clay water into a separate container. Watch carefully while you are pouring and when you see sediment starting to gather on the lip of the container. Repeat steps 4 & 5 as many times as necessary to extract the greatest possible amount of clay from the sediment. Stop pouring sooner rather than later! You don’t want sediment sneaking through into your clay.
- Take the clay water you have collected and repeat the same process of diluting, mixing and settling, and pour this further refined clay water into a third container. This step will help to get rid of the smallest bits of sediment.
- Once you have removed all the sediment, leave the clay water to settle, undisturbed, for at least a few hours (a full day is even better). This allows the clay particles to settle to the bottom of the container.
- After the clay has settled the water should be virtually clear and there should not be any noticeable color change lines within the settled clay. If you see that a sediment layer has appeared below the clay (indicated by a layer of darker, coarser material at the very bottom), repeat steps 4, 5 and 7 until you have removed all the remaining impurities
- Carefully pour off the suspended water, watching the lip of your container. When clay begins to pour off with the water, stop pouring, set the container down and allow the contents to settle for a few minutes. Continue this process until as much water as possible has been poured off and only clay is left in your container.
- Take a section of old bed sheet, t-shirt or other finely woven fabric, drape it over a bucket and, keeping the cloth secured against the bucket, pour the wet clay into the center. Pull the edges of the fabric together to make a “bag” in which to hold your clay while it dries. Tie the top of the bag closed, pulled snug around the top of your new clay ball.
- Use some sturdy rope or cordage to hang the clay bag some place where it can remain undisturbed for several days. You should see water dripping out of the bottom of the bag as the clay begins to dry. The water should be clear, or have a slight clay-colored tint. If you can feel any grit or see any particles, your bag material is not of a fine enough weave and you are losing clay. Find something tighter and re-bag.
- After two or three days open your bag and check if your clay is still soupy, or if it has firmed up. If you are unsure, scrape a small amount of clay into your hand and if it will form into a ball that retains its shape easily, you’re good to go! If not, re-tie the bag and allow it to hang another 24 hours before checking again. Once your clay has reached a usable consistency it can be removed from the bag and placed into a permanent container, ready to be tempered and molded for pottery, or used for whatever project you have in mind.

PRESERVATION OF CLAY

Clay can be stored for months or years. Exposure to air will not cure or hurt it, but it's best to keep it wrapped for protection from dust, animal hair, sunlight and lint. Clay does not contain water that can evaporate like earthen clay. The main danger to clay is from excessive heat or ultraviolet light; these can partially cure the clay, making it unusable. Your clay will last long if you keep it away from sunlight and heat.

CLAY MODELING TOOLS

Wire end modeling tools, hardwood modeling tools, carbon steel tools, plastic modeling tools, calipers, scrapper, wood stamp supporter, solid wood mallet, apron, brush, colour, spray machine etc.



DIFERENT PROCEDURE OF CLAY WORK

Coiling is a method of creating pottery. It has been used to shape clay into vessels for many thousands of years. It ranges from Africa to Greece and from China to New Mexico. They have used this method in a variety of ways. Using the coiling technique, it is possible to build thicker or taller walled vessels, which may not have been possible using earlier methods. The technique permits control of the walls as they are built up and allows building on top of the walls to make the vessel look bigger and bulge outward or narrow inward with less danger of collapsing.

Moulding is the process of manufacturing by shaping liquid or pliable raw material using a rigid frame called a mold or matrix. This itself may have been made using a pattern or model of the final object.

A mould is a hollowed-out block that is filled with a liquid or pliable material like plastic, glass, metal, or ceramic raw materials. The liquid hardens or sets inside the mold, adopting its shape. A mold is the counterpart to a cast. The very common bi-valve molding process uses two molds, one for each half of the object.

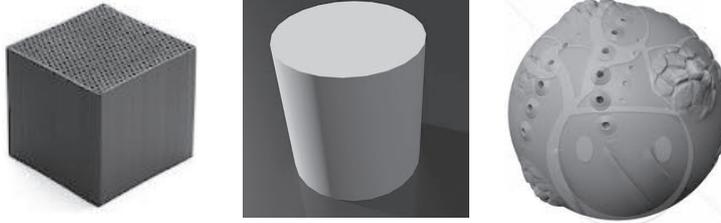
The armature is a fundamental part of the sculpture. In very basic terms it is the skeleton or support structure that will hold your clay as you sculpt the figure. It is important not to take short cuts or work hastily without proper planning, as this will result in much unnecessary frustration later on.

In sculpture, an armature is a framework around which the sculpture is built. This framework provides structure and stability, especially when a plastic material such as wax, newspaper or clay is being used as the medium. When sculpting the human figure, the armature is analogous to the major skeleton and has essentially the same purpose: to hold the body erect. An armature is often made of heavy, dark aluminium wire which is stiff, but can be bent and twisted into shape without much difficulty. The wire is affixed to a base which is usually made of wood.

Carving is the act of using tools to shape something from a material by scraping away portions of that material. The technique can be applied to any material that is solid enough to hold a form even when pieces have been removed from it, and yet soft enough for portions to be scraped away with available tools. Carving, as a means for making sculpture, is distinct from methods using soft and malleable materials like clay or melted glass, which may be shaped into the desired forms while soft and then harden into that form. Carving tends to require much more work than methods using malleable materials

2.6.1 Making of 3 Dimensional objects.

Making of various geometric forms like round, cube, pyramid, cylinder etc. shape the clay into these various geometric forms and let them dry. when dried apply a white coating and colour as per your choice.



2.6.2 Relief work in clay :

Relief work is usually seen on the architectural works of several temples and Mosques. Bengal's relief work in clay and the Terracotta Relief works of undivided Bengal is very famous.

There are two types of relief work

- a) High Relief
- b) Low Relief

Method :

- Make a square plate/ plaque which is 6" long 4" wide and 1" deep / thick.
- Using a piece of wire or stick make a drawing.
- Using the wire or a gemclip to dig out the portions which will be lower as per the design.
- When the clay dries up **smooth out** the relief edges by rubbing.
- Apply a white coat and colour according to your choice.



2.6.3 Toys, fruit, animals etc. made out of clay.

Clay toys, fruit animals etc. are made usually by pressing and moulding the clay with fingers and thumb. Sometimes a blade made out of bamboo is also used. Clay pots and vases can also be made by rolling out Clay in long strips and winding them in the desired shape. When dried apply a white coat and colour as per choice.

2.7 Graphics

The word “graphics” is derived from the greek word “graphia” meaning creating a picture on any surface. It can even be a print. In graphic Art there can be script too. Any art work on walls, paper, canvas, stone or computer screen created with sketches, graph, numbers, signs, colour, geometric pattern, map, photograph, letters etc. is a graphic.

First graphic art was seen in the new stone age: the cave **paintings that represented astronomy**, seasons etc. Some Graphics were engraved on stone surface. Designs of Pyramids were found on Egyptian papyrus. Between 600 BC and 250 BC. greeks used Grapics in **geometry**.

First printed picture was seen in China. Though in the primitive caves prints of hands were found. After the invention of paper print care into use. A block is needed to print pictures. From a single block multiple prints are obtained of the same picture. Colour is applied on the relief portion of the block and prints are taken wood, metal plate, linosheet, stone etc. are used to make blocks for prints.

There are two types of prints:- a) Any engraved surface used as bolcks. b) Where hands/palm or fingers are used as blocks.

2.7.1 Woodcut & linocut :

Woodcut or Linocut was initially used for printing designs on textile. Later on it was developed and used in printing press. All illustration of Rabindranath Tagore’s ‘Shahaj Path’ was done in this method by Nandalal Basu.



Features :

- Direct painting cannot be done.
- Once the plate/block is ready multiple prints can be taken.
- It was extensively used in press and the printing industry.

Materials : Wood or Lino sheet, cutting tools, printing ink, roller, big spoon etc.

Method:

- First draw on surface of the wood/lino sheet.
- Scoop out the areas where colours won't be applied.
- Apply printing ink evenly on the surface of wood/linosheet with the rollers.
- Place the paper up-side down on the inked surface and rub with the back of the spoon.
- If the print is of multiple colours then multiple wood block or lino sheets have to be used.

2.7.2 Potato or Ladyfinger prints:

Cut the potato into half and carve out a design of the plane surface. Apply colour on this surface and take prints. Slicing a Lady-finger and taking out prints gives beautiful flower designs.



2.7.3 Stencils:

Stencils is also a kind of 'print picture', which is done by cutting out thick card board or tin sheet.

Method:

- First draw a design of the paper board or tin sheet.
- Cut out those areas which are to be coloured.
- Place the stencil on a paper and take prints by dabbing colour on it with sponge, cotton, piece of cloth or spray.

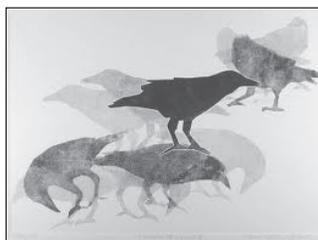


2.7.4 Palm and finger prints:

Apply colour on palm/fingers and take prints. Add a few lines with brush or pen and bring out the shape of birds, animals etc.

2.7.5 Monoprint:

On a glass sheet quickly paint a picture with brush and water colour. Now place a paper on the painting while it is still wet. This process of taking print is called monoprint cause only one can be taken.



2.8 Let us sum up

The various methods and materials of Art & Craft have been discussed in this unit. The different important aspects of drawings & painting like proportion, perspective, balance, rhythm & composition and the use of colours and brushes have also been discussed. We have learnt about primary and secondary colours, transparent and Opaque water colours and the importance of calligraphy and its various style and fonts.

Collage being another medium of painting which is cheaper and where throw away materials are recycled. Other paper art like - origami, paper cutting, paper mache, paper and cardboard work have been discussed. Various information and method about clay and claywork like Geometric Shapes, Relief work, Making of toys and animals etc have been discussed too.

We have also learnt about Graphics as an important medium of Art, where multiples prints can be obtained from lino sheet, wood block, vegetable blocks, stencils, hand and finger prints.

Monoprints have been discussed too.

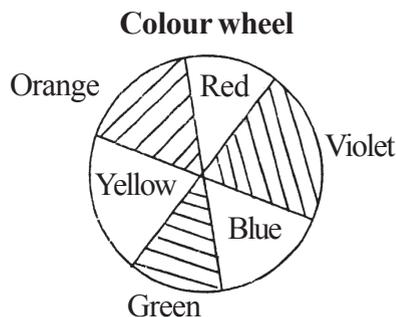
The more one practises art and craft the more his/her skill will improve.

2.9 Unit and Exercise

- What is Art?
 - What are the four basic conceptions of painting?
 - What is perspective?
 - What is 'still life'?
 - Define warm colours and cool colours with examples?
 - Write the names of five types of red colour?
 - What does the word "Collage" mean?
 - Where was paper invented?
 - Discuss the method of "Paper Mache" work.
-

2.10 Answer to check your progress

- Colours that are pure and have their own existence. e.g. Red, blue & yellow.
- Lemon yellow, Gamboge, yellow Ochre
-



- Yellow + Blue = Green
- Light to dark method.

WORK EDUCATION

UNIT — 3

Work Education

STRUCTURE :

- 3.1 Introduction
- 3.2 Objectives
- 3.3 Scope of Work Education
- 3.4 Gandhiji's concept of Basic Education
- 3.5 Work Activities relating to different subjects
- 3.6 Identification of local craft
- 3.7 Strategies for Development of Work Education
- 3.8 Designing and organizing School-Based Activities
 - 3.8.1 Social Cleanliness
 - 3.8.2 Flower Gardening
 - 3.8.3 Clay work
 - 3.8.4 Paper work
 - 3.8.5 Puppet
 - 3.8.6 Toy Making
 - 3.8.7 Repair of electrical and electronic gadgets
- 3.9 Evaluation of Work Education
- 3.10 Suggestion for curriculum transaction
- 3.11 Let us sum up
- 3.12 Unit-End-Exercise
- 3.13 Answer to 'Check Your Progress'

3.1 Introduction

Work Education is viewed as purposive and meaningful manual work, organized as integral part of the learning process and resulting into Goods or services useful to the community, besides the pleasure of self-fulfillment. It should be an essential component at all stages of education and must be provided through a well-structured and graded programme. The competencies to be developed in this field should include knowledge, understanding skills and values through need-based life activities. "Work Education is a method of integration of education with work" or "Work Education is a process for the development of total personality of an individuals for social living in the world of work."

The West Bengal Board of Secondary Education introduced the term “Work Education” in the year 1974. The idea of work experience came from the recommendation of the Indian Education Commission-1964-66, popularly known as the Kothari Commission. The commission mentioned four basic elements of education they are:

- (i) Literacy
- (ii) Numeracy
- (iii) Technicacy
- (iv) Sociacy

3.2 Objectives

After reading this unit, you will be able to :

- Discuss the essence of work education
- Understand the significance of work education in school curriculum.
- Correlate work education with other subjects.
- Develop skills for the selection, procurement, arrangement and use of tools and materials for different forms of productive work.
- Use his creative faculties for devising innovative methods and materials.

3.3 Scope of Work Education

The National Policy on Education 1986 has conceived Work Education as purposive and meaningful manual work that results in goods or services which are useful to the society. Work Education comprises activities consisting of services, foods and community development in various areas of human needs such as health and hygiene, food, clothing, recreation and social service in accordance with mental abilities and manual skills of children at various stages of education and the availability of local resources. The Policy visualized intensive participation in production and service-oriented projects for the middle and lower-secondary stages along with an “Earn while you learn” dimension for needy students on an optional basis. It assigned equal importance to community work/social service for creating social awareness and concern for the welfare/development of the local community or society at large. The essential attribute of Work Education is, therefore, its manual character which means that the children have to work with their hands and thereby develop a purposive or educative in that. It should help in developing knowledge, understanding attitudes, personal-social qualities and skills related to the world of work. Further, Work Education should be meaningful i.e., it should help in the satisfaction of children’s basic needs of life such as food, clothing, shelter, health, hygiene and recreation, through production of goods or rendering of services. Social or community service for the welfare/development of the community or society at large should also form an essential component of Work Education.

Work Education helps in the complete formation of personality of the learner through an environment of work. Mainly three situations provides such environment to a learner : (a) School, (b) Home (c) Social environment

First situation : On the basis of the location of the school-whether it is situated in the rural area or urban area the work project is to be selected. The school should consider the world of work with which the people of the locality are most familiar. Then the problems of the people of the locality are to be surveyed. On the basis of this survey, the project for the “Exposure stage” is to be selected. Through participation in these projects, the learners will develop their skill of work and a positive attitude towards work.

Second situation : Parents of many learners are skilled participants of industries- rural small scale, industrial or agricultural production centers. Under direct supervision of such parents, the students can take part in work education projects at home. Like schools, home can provide such education at the minimum cost and with high proficiency.

Third situation : Students can take part in real life production process or can be passive observers of production process in any firm or factory. Learners take part in different activities of such productive centers of the society.

3.4 Gandhiji’s concept of Basic Education

Gandhiji opined that- Education through Work emancipates the children from the bondage of worthless monotony, make them respectful towards work. Education aims at all round development of the children along with spiritual development.

He said education will be free and compulsory. Through work, education is to be given. Practical and vocational education should be imparted to the children. Handicraft should be taught during childhood days e.g. spinning, agriculture, metallic works, drawing, songs and physical works. These were included in his ‘basic education’.

3.5 Work Activities relating to different subjects

Integration is the process of making a piece of content application based and meaningful through establishment of links, organization of concepts and bridging the gaps between elements that has existed previously. The theoretical knowledge in work education gets a practical shape and becomes utility bound only through meaningful integration.

Integration makes the learning meaningful and easy for the learners. The skills learned and intuition developed through integration help the learner in better comprehension of the content.

Here is a discussion about the process of integration of work education with other subjects. The concept can be better explained, if we take a topic, e.g., “Gardening” which belongs to Class IX or Class X. At first it is related to Geometry and Geography. Then it is also related to Life science, Language, History etc.

3.6 Identification of local craft

A craft is a pastime or a profession that requires particular skills and knowledge of skilled work. India has a rich fabric of traditional handicrafts since the time immemorial. Educational handicraft activities in schools

are essential for giving young people a greater sense of creativity, and helping them to appreciate the value of work with the hand. Folk art is usually referred to as the art of the masses or the people living in a particular region or area. Folk arts are usually simple and easy to understand. The folk art forms include paintings, sculptures, weaving, embroidery etc. The teacher can always show the students examples of different folk art forms. Since there are a large variety of them. While telling about the art forms, teacher can tell the students about the materials used, its function, rituals if any associated with them, the community which makes them, the motifs etc. West Bengal also has a rich traditional handicraft, such as Terracotta in Bankura, Bamboo work in North Bengal, Clay work in Krishnanagar etc. These handicrafts may be prepared traditionally or by using modern methods. This activity which the students find interesting and can show their creativity at best.

Interviews with local craftsmen

Students can take an interview of local craftsmen. They will be aware of technique of local craft, making, raw materials etc. These interview may help them to know and prepare the innovative art or craft work.

Preparation of reports on the local crafts and craftsmen

Students will prepare a report on the local crafts and craftsmen. How to make a report step by step are given below :

- a) Concept of local crafts
- b) Characteristics of the area
- c) History of craft
- d) Method of the craft
- e) Marketing
- f) Suggestion for development

3.7 Strategies for development of Work education

If work Education is to be accepted to all, work should be connected with the primary needs of the society. The children will also be motivated to do the works. Moreover the teaching of other curricular subjects should be correlated with work education. From 1982 work education was incorporated in the curriculum of secondary education in WB and it had boosted the teaching learning of work education.

Skill development

To acquire the requisite skill in work education, repeated exercise is necessary. It also minimizes the errors in works. A student repeatedly practising to make a doll commits less error in future. Furthermore he is thus turned into a skilled craftsman. He will gain these skills in play way method.

Work Experience

According to Kothari Commission the integration of productive work with education is called work experience. The experience a man derives from activities is called work experience. Every meaningful work helps developing work experience. These experiences help develop work habits.

Socially Useful Productive Works (SUPW)

SUPW is the productive works that are very useful in daily life of man and his society. As the student is involved in the planning and execution of such activities, he never forgets his activities. Production of candle, soap, phenyl etc come within such activities. He/she may earn his/her livelihood with these skills if he does not get any suitable assignment from Govt in future.

Check Your Progress – 1

- a) Which year West Bengal Board of Secondary Education introduced the term “Work Education”?

- b) West Bengal also has a rich traditional _____.

3.8 Designing and organizing School-Based Activities

3.8.1 Social Cleanliness

Social cleanliness the first level of infection control, which includes washing with a soap substance or alcohol and maintaining high standards of personal hygiene. Further measures to avoid the spread of infection include decontamination and sterilization.

3.8.2 Flower Gardening

A flower garden is any garden where flowers are grown for decorative purposes. Because flowers bloom at varying times of the year and some plants are annual, dying each winter, the design of flower gardens can take into consideration to maintain a sequence of bloom and even of consistent colour combination through varying seasons. Steps of flower gardening are given below.

- (a) Sunlight for flower garden – Most flowering plants need a full sunlight, where sunlight falls 6 to 8 hours a day through the growing season.
- (b) Selection of Soil – Success is in the soil. Good soil not too sandy, not too sticky with enough organic matter to make it drain well and be inviting to plant roots is essential for successful flower gardening.
- (c) Annual and perennials plants - Annual and perennials plants selection are essential for flower gardening.
- (d) Soil preparation – Most plants need soil is loose enough for roots to grow easily. Adding coarse sand and well-rotted organic matter to clay soil will help loosen it. Organic matter should also be added to sandy soil.

- (e) Planting Seed – Correct depth of planting and proper timing are needed for seed. Cover the seeds with fine soil and water thoroughly.
- (f) Maintenance – All plants need water to grow and remove weeds to reduce competition for water and nutrients. Plants need to improve soil with compost tea, worm castings and liquid seaweed.
- (g) Plant Propagation – Plant Propagation is the process of creating new plants from a variety of sources: seeds, cutting, bulb and other plant parts.

3.8.3 Clay work

An earthy material that is plastic when moist but hard when fired, that is composed mainly of fine particles of hydrous aluminum silicates and other minerals, and that is used for brick, tile, and pottery; *specifically* : soil composed chiefly of this material having particles less than a specified size.

Clay Preparation

Clay Aging and Plasticity Aging of clay is a very important step in improving workability and plasticity of clay bodies because it takes time for water to penetrate between the clay particles and produce a good and permanent bond. Bacterial growth also has a definite effect on improving plasticity of the clay. It is suggested that some old clay should be left in the container where new clay is added to accelerate bacterial growth in the clay. Bacterial gels (mold) will be noticed sometimes in a marbled pattern on clay. Such clay has a very good feel to it when wedging, which should be done to achieve maximum plasticity and uniformity.

Wedging is used for eliminating lumps and air bubbles, drying the clay, and organizes the clay particles to lie in the same direction for strength. Wedging homogenizes or makes the clay consistent. To see if a ball of wedged clay is free of lumps or air bubbles and is homogenized, cut through it with a wire tool and look at the two halves.

Wedging should be done on a low surface as comfortable. You may need to add jute to the clay while wedging. Jute helps strengthen the clay when sculpting. Your body should be higher than the table for good body power, so that you can use your body as well as your wrists and arms. Your body should be involved in the rolling action or you will get tired. The wedging surface should be firm and well anchored to make wedging easier.

Different procedure of clay work

(a) Handbuilding

Handbuilding is working with clay by using only simple tools, not the pottery wheel. The three most common forms of creating hand built pots are pinch pot, coiling and slab techniques.

(b) Clay by wheel work

Before potters had the wheel, they were creating beautiful pots and clay forms using clay, their hands and fingers, and basic hand tools. A potter's wheel is a machine used in the shaping of round ceramic ware.

Clay work by molding

It is another process of clay work. Similar clay work can be done through this process. This process is popular to artisan.

Activity on clay work

Materials: Select a wooden board and place it on a table. Cover the board with a piece of paper. Take a lump of clay. Knead the lump for some time and mould it in the form of one's choice. With more clay make further forms separately and these to the form already made. Select modeling instrument and cut forms, shapes, texture etc. on wet clay wherever necessary. Keep the modeled objects in a room or under should for room- drying condition. After complete drying but before baking keep the objects in the open under sun for a day or two. Keep the modeled objects covered with polythene sheet. Bake the object after sun drying in open kiln.

3.8.4 Paper work

Paper derives its name from the reedy plant papyrus. The ancient Egyptians produce the world's first writing material by beating and pressing together thin layer of the plant stem. However, complete defibering, which is characteristic of true papermaking, was absent.

The first authentic papermaking originated in china as early was 100 A.D, utilizing a suspension of bamboo or mulberry fibers. The Chinese subsequently developed papermaking into a highly skilled art and many beautiful examples of ancient Chinese illustration of paper are still in existence.

There are different types of paper craft, such as paper mache, paper pulp, origami, paper cutting, kirigami etc.

Paper mache

Paper mache (literally "chewed paper") has gained popularity worldwide because of its versatility. The word Paper Mache came from French word. Historically it has been made in a wide range of applications, from decorative profiles and mouldings, Boats, buildings and furniture. It can also be seen in the colourful products of folk tradition. Paper Mache is a delicate decorative art. In India the art of Paper Mache came from Persia. The influence of the Persian art was favoured greatly by Mughal emperor. Though lot can be written about the Mughal period in India, but one of their greatest contributions to Indian art and history was to introduce this delicate art of Paper Mache to Indian craftsmen.



Process of paper Mache

At first paper is cut or torn into strips, and soaked in the paste until saturated. The saturated pieces are then placed onto the surface and allowed to dry slowly. The stripes may be placed on an armature, or skeleton, often of wire mesh over a structural frame, or they can be placed on an object to create a cast. Oil or grease or any releasing agent can be agent if needed. Once dried, the resulting material can be cut, sanded and painted; you can use of paper mache, the glue must be fully dried, otherwise the product will rot.

Paper mache is a popular method of creating three-dimensional projects. Paper bound with a strong adhesive dries into a sturdy shell that takes the form of its mold. In this procedure, a balloon is used as the mold for the paper mache. The balloon-shaped paper mache can be decorated into a mini hot air balloon, Easter eggs, paper mache animals, and other paper mache projects.

PAPER PULP

At first the paper is left in water at least for one night to soak, or boiled in abundant water until the paper dissolves in a pulp. The excess water is drained, an adhesive is added and the pulp applied to a form or especially for smaller or simpler objects, sculpted to shape.

6.6.5 Puppet

Puppetry is a form of performance which involves the manipulation of puppets. Puppetry takes many forms but they all share the process of animating inanimate performing objects. Puppetry is used in almost all human societies both as an entertainment in performance and ceremonially in rituals and celebrations such as carnival.

Most puppetry involve story-telling. The impact of puppetry depends on the process of transformation of puppets, which has much in common with magic and with play. Thus puppetry can create complex and magical theatre with relatively small resources.

Traditionally, India has a rich heritage of puppetry. The early puppet shows in India mostly dealt with great kings, princes and heroes and also political satire. Religious portrayals in puppetry developed in South India with shadow puppets performing stories from Ramayana and Mahabharata. Besides dealing with religious themes, Indian Puppetry also conveys useful messages from Panchantra and other mythological and historical epics.

Puppetry is a very ancient art form, probably first originating about 30,000 years ago Puppets have been used since the earliest times to animate and communicate the ideas and needs of human societies. Some historians claim that they pre-date actors in theatre. There is evidence that they were used in Egypt as early as 2000 BC when string-operated figures of wood were manipulated to perform the action of kneading bread. Wire controlled, articulated puppets made of clay and ivory have also found in Egyptian tombs. Hieroglyphs also describe “walking statues” being used in Ancient Egyptian religious dramas.

West Bengal has a rich tradition of rod puppetry, locally called putul-nach. The Bengali puppeteers believe that rods are superior to strings in giving the required animation as well as in manipulation.

Puppetry developed throughout the twentieth century in a variety of ways. Supported by the parallel development of cinema, television and other filmed media, it now reaches a larger audience than ever. Throughout the world, innovatory puppeteers such as Tony Sarg, Bil Baird, Philippe Genty have continued to develop the forms and content of Puppetry. Sergey Vladimirovich Obraztsov was a Russian master who is credited with ‘establishing puppetry as an art form’. He is called the father of Modern Puppetry.

Different types of puppetry

- (a) Rod Puppet – These puppets are constructed around a central rod secured to the head.
- (b) Gloves Puppet – This is a puppet controlled by one hand that occupies the interior of the puppet.
- (c) String Puppet – This is a puppet suspended and controlled by a number of strings.
- (d) Shadow Puppet – A shadow puppet is a cut-out figure held between a source of light and translucent screen.



Gloves Puppet



Rod Puppet



String Puppet



Shadow Puppet

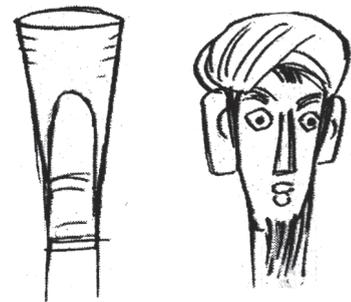
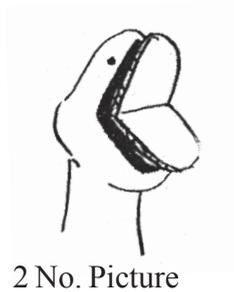
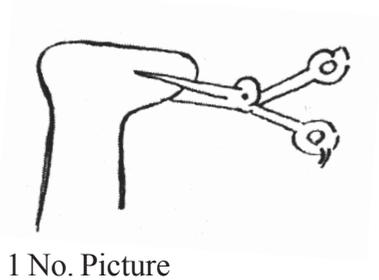
Aims and objective of Puppet

- Using as a teaching learning materials.
- To communicate the lesson easily.
- To develop the creativity and imagination.
- To build up the attitude of the learner.
- To create an acquaintance with the contemporary socio-political programme & activities; in this aspect puppetry would be more powerful weapon than the common and popular print & electronic media.

Gloves Puppet of caterpillar

Materials : Soak, Crepe paper or ribbon, button, hairpin, adhesive etc

- Thread the hairpin over the toe of the sock and twist it to keep it in place.
- Slip caterpillar on to your right hand, keeping your first closed to form its head. Your movements would be from the wrist to give the effect of caterpillar's head moving.
- A small button (with two holes) stitched on to a larger button (of a different colour) with four holes would give a good effect for the eyes.
- Stick on strips of crepe paper or coloured ribbon to decorate the caterpillar.



Finger Puppet

Materials: Cardboard, Poster colour, adhesive etc.

- Draw face or animal shape on the cardboard.
- Cut a rectangular strip of the same flexible cardboard, long enough to wind over the puppeteer's finger, leaving 1 cm on each end to join.
- Join the strips with adhesive, and when it is dry, shape it into a semi-circle.
- Glue the semi-circle on the back of the puppet
- Paint the animal or face.

3.8.6 Toy Making

A toy is an item that can be used for play. Toys are generally played with by children and pets. Playing with toys is an enjoyable means of training the young for life in society. Different materials are used to make toys enjoyable to both young and old. The earliest toys are made from materials found in nature, such as rocks, sticks, and clay.

Joker with moving hands and legs

All of us want to have something in our hands to play with. How about a joker that can move his hands and legs? How do we make one? This is what we shall now learn.

Material: Old greetings card or thick paper, scissors, sketch pens, crayon, binder clips.

Method: Draw the outline of the joker's body, face and cap on the paper. Also draw the arms and legs properly. After drawing, cut the shapes correctly. Now you have all the parts of the joker's body with you. Colour them with the sketch pens and crayons. Try to use bright colours. Your joker will look colourful if you use the right colour combination.

Now join all the body parts with binder clips as shown. Remember to join the arms and legs from behind. When you join the face it will automatically hide the clip that holds the arms. Your joker is ready! He waves his arms and legs, doesn't he?

3.8.7 Repair of electrical and electronic gadgets

With the advancement of science and technology we are using more and more electronic devices which need repair as well as maintenance. Work Education must give this area of activity to students so that they can develop their interest and creativity. The knowledge in this area is of great use not only for home and family but for career also if students link it up further in their education.

The student will be able to develop practical skills in repairing, maintaining and making electronic devices used in day to day life. Locate fault of electronic devices by various methods i.e.

- i. Testing individual components
- ii. By signal flow method
- iii. By measuring voltages at testing points
- iv. Install and use P.A. system.

Check Your Progress – 2

- a) Write the name of different types of Puppet.

b) Write the name of three procedure of clay work.

c) What do you mean by paper mache ?

3.9 Evaluation of Work Experience

W. E. is unit based education. Its evaluation is also unit based. With different techniques of evaluation, it is possible to assess interest, attitude, personality, skill or competency of the students. The records of such evaluation are to be preserved.

Defining Evaluation in The Context of Work education.

In the domain of work education, emphasis should be given on (i) selection of appropriate tools, (ii) preparation of tools, (iii) preservation and uses of the results of evaluation and (iv) publication of results

Associating Competencies with Evaluation Tools

The techniques of evaluation generally involves (i) Directions, (ii) Daily notes in diaries (iii) itinerary of observation, iv) preservation of productive works.

Techniques of questioning:

- (a) Oral question on the planning of works(marks-5)
- (b) Instruments, equipments, and arrangement(marks-5)
- (c) Comprehension and application of works (marks-5)
- (d) Questions on related issues may be asked (marks-5)

Assessing the competencies for work Education

Approval of need based projects for work education

Communicating the work experience to the students

Encouraging the students to participate in planning and evaluation

Integrating works with bookish knowledge

Developing dignity of labour and respect to labourers

Adopting systematic process of evaluation of work education

Arranging for necessary fund and suitable workshop

(By removing the limitation of infrastructure) Popularizing work education among the masses

Preparation of Report & its implication for Work Education in the schools

For VI-VIII, evaluation in work education will be internal. The students of secondary stage will maintain work diary and note all activities related to work education in it. For application of work education in school following techniques are necessary:

To inculcate dignity of labour among students

To develop respect for the wage earners

To develop planning

To develop skill of work

To develop skill in the favourite activities

To transfer work experience to learning of other school subjects

Example:

Work experience to be integrated with knowledge of Subjects

- | | |
|-------------------------------------|--------------|
| 1. Preparation of Soap, Phenyl, Ink | Chemistry |
| 2. Repairing of Electrical Gadgets | Physics |
| 3. Gardening | Life Science |
| 4. Weaving, knitting | Geography |

3.10 Suggestion for curriculum transaction

India is a land of artisans and craftsmen. Indian population has a lot of inherited potential and capabilities which they project out through their craftwork. It is one skill through which students can project their hidden talents. Craftwork not only keeps them busy but gives them satisfaction also. The learning of craft work begins with junior classes but if taken in details later too, the seniors can show excellent craftsmanship. This can become a good source of appreciation for them, thereby enhancing their personality and helping them to choose a vocation ahead.

The student will be able to acquire skills of making articles like fruits, vegetables, animals, birds, decorative pieces using paper mache and clay work. These products can be used in mathematics, EVS classes. Different geometrical shape can be made with clay work.

3.11 Let us sum up

Work Education is an effort to integrate school subjects with productive labour to develop healthy attitude, skill and knowledge essential for human survival. Student will be able to know about clay work, paper work, puppet, toy making, gardening etc through this chapter.

3.12 Unit-End-Exercise

- a) What is work education? Describe its aims and objectives.
- b) How work education is correlated with other school subjects?
- c) How to prepare the clay for clay work?
- d) Write the process of paper mache.
- e) How to prepare soil for flower garden.

3.13 Answer to ‘Check Your Progress’

‘Check Your Progress’-1

- a) 1974
- b) Handicraft

‘Check Your Progress’-2

- a) Rod puppet, Gloves puppet, String puppet, Shadow puppet.
- b) Hand building, Clay by wheel work , Clay work by molding.
- c) chewed paper

Health and Physical Education

Unit — 4

Health and Physical Education

STRUCTURE :

- 4.1 Introduction
- 4.2 Objectives
- 4.3 Concept of Health and Importance of being healthy
- 4.4 Personal Cleanliness
- 4.5 Environment Cleanliness
 - 4.5.1 School Health Programme – Health instruction, Health service, Health supervision
- 4.6 Records of Body Height and Weight, their uses
- 4.7 Uses of Drinking Water
- 4.8 Food and Nutrition
 - 4.8.1 Importance of Food and Nutrition
 - 4.8.2 Mal-Nutrition
- 4.9 Let us sum up
- 4.10 Unit-End Exercise
- 4.11 Answer check your progress

4.1 Introduction

The development of a country depends upon their health. Health of the country denotes the overall health of the general public. Regular taking sufficient food, proper rest and sleep is required for building good health as well as need regular physical exercise. According to World Health Organization (WHO), ‘Health is a State of Complete physical, mental and social well-being and not merely an absence or infirmity.’

4.2 Objectives

Through this lesson unit the trainee teachers will learn about skills and apply to others –

- To develop health consciousness.
- Learn about personal and social health and hygiene.
- Learn about various diseases and their prevention.
- Know about how to take care of nose, ear, throat, skin and teeth.

4.3 Concept of Health and Importance of being healthy

Hygiene or Health Science: The word Hygiene has been derived from Greek word ‘Hygeia’. Hygeia was the Goddess of Greek health. In the modern times it means the preservation of health or the art of living.

Hygiene is a science oriented subject that plays a vital role to control health and development of better health. For keeping personally graceful and cured your society it is necessary to know about health science. Hence health science means the study and application of disease and serves your different body parts of the body and development of individual and also for society. **Aims of Health Science:** The major aims of health science are how to keep and apply Sciema of the health through scientific way and take necessary action about it for the individual and society.

Two directions of hygiene are – (1) Personal Hygiene and (2) Social Hygiene.

(1) Personal Hygiene: It is true that a healthy mind lives in healthy body. It means that for proper and systematic working of the body like physical, mental and social it is essential to have proper hygiene. This type of hygiene is called personal hygiene.

Its related matters are – food and the daily routine of taking food, nutrition, personal cleanliness, rest, fresh drinking water etc.

Objectives of personal hygiene: The various objectives of personal hygiene are –

- To develop health awareness and to help to remove health hazards.
- Give a proper concept of building body and its function.
- Develop the knowledge about necessity of intake nutritive food and balance diet.
- Improve Human Relations in matters of health.
- Developing a sense of civic responsibility through maintain the laws of hygiene.
- To supply the necessary information of taking nutritive food, proper rest and exercise in appropriate time.

Importance of personal hygiene:

- It helps to develop positive outlook of good habits.
- Helps to build up healthy environment at institution, home and classroom.
- Play a vital role to make attractive personality.
- It develops mental stability.
- Helps to encourage about health related matters.

(2) Social Hygiene:

Social health and hygiene involves the ability to form satisfying interpersonal relationships with others. It also relates to the ability to adapt comfortably to different social situations and act appropriately in a variety of settings. Spouses, co-workers and acquaintances can all have healthy relationships with one another. Each of these relationships should include strong communication skills, empathy for others and a sense of accountability. In contrast, traits like being withdrawn, vindictive or selfish can have a negative impact on your social health. Overall, stress can be one of the most significant threats to a healthy relationship. Stress should be managed through proven techniques such as regular physical activity, deep breathing and positive self-talk.

Objectives of social hygiene:

- To develop and supply important information to every individual about health consciousness.
- Helps to buildup healthful living.
- To encourage good habits and orderly spending of life.
- Have adequate levels of self-esteem and give encouragement and advice about the development of health physical ability.
- Take necessary steps about keeping ideal and healthy environment.

Importance of Social Hygiene:

- Its play a vital role to protect public health.
- To helps the way of protection for health awareness and various health related matters.
- It helps to buildup healthy and disease free society.

Health needs of a growing child

- a) To develop children's health structure.
- b) To develop various parts of the body and systems (Circulatory, Digestive, Endocrine, Nervous system).
- c) To develop the resistance of disease.
- d) Keep notice about not to allow any kind of communicable disease in body.
- e) Keep in view about children does prolong period working ability getting less energy expenditure through neuromuscular co-ordination.
- f) Keep notice about the development of thinking, knowledge and emotional expression as the result of mental stability.
- g) To develop good habits of children through active participation in games and sports. It also develops good health and healthy lifestyle.

4.4 Personal cleanliness

Introduction:

The cleanliness of the outer parts of the body depends upon man's personal habits. But every person should attend to the cleanliness about it, without hindrance in the way of social, mental and special development of a person. If the various parts of the body are not kept clean, it causes many diseases. Personal hygiene includes all these things which are essential for the health and cleanliness of a person, such as food, cleanliness of body, living habits, sleep, rest, exercise etc. All these things should be well considered in order to keep the body quite healthy.

Need of personal cleanliness:

- Various types of infectious disease may spread from untidiness like dirty hands, untidy cooking utensils, withered food, unclean and spoiled water etc.

- Personal cleanliness may develop the resistance power of the body.
- Personal cleanliness preserves health and also develops it.
- Protect infections by which bowels complaint, diarrhea may be remove.
- Health instruction and health education build up safe, healthy and secured a clean atmosphere towards children for their health.
- Better learning in school is depends upon the student's health and high quality nutrition.

Care of different parts of the body

Care of Skin

Various disease of skin:

- 1) Ring worm, 2)Itching, 3)Pimple, 4)Eczema, 5) Freckles, 6)Psoriasis, 7)Skin crack

Care of skin:

1. Take bath with warm water.
2. Try to protect body from oil or dirty substances use warm water and soap.
3. Use cream for dry skin.
4. Use cloths according to climatic condition and weather.
5. Take bath with antiseptic lotion for healthy skin.
6. Take nutritious and balance diet for natural health of the skin.
7. Don't use another person's garment, towel etc. Always clean under garments.
8. For Psoriasis patients, try to take bath under shower.
9. Sun bath, air bath and sea bath is helpful for health.
10. Always take attention to personal cleanliness and take advice from skin specialist.
11. If any member of your family is suffering itching it is necessary to take medical advice from skin specialist as early as possible.
12. Take sun bathin winter for take vitamin 'D' with necked body which make resistance power of disease for body.

Care of Nose, Ear and Eyes

Care of Nose:

We take air from nature through nose; there are so many substances like air, dust and micro germs we inhale through acquired air. If we do not clean the nasal pathway these substances are accumulate inside the nose, for resulting we face various disease of nose.

Rules:-

- a) Don't insert finger inside the nose.
- b) Clean nose with soft and clean soft cotton cloth.

- c) When you walk along the road try to cover your nose with clean handkerchief.
- d) To clean nose dragging some clean water through nose and bring out the same amount of water from nose.
- e) Catheter may use for rear part of the nose cleaning.

Care of Ears:

- 1. Hard ear-wax: Inside the ear a huge ear-wax may cause of ear pain or damage hearing power.
- 2. Suppurate in ear: The dirt which accumulates in the ears causes itching sensation and some other defects of ear and sometimes liquid coming out of them and we cannot listen properly. If suppurate forms in ear it must bring out and take proper treatment, otherwise it may damage ear or occur cancer.
- 3. Tear of Ear-drum: Ear-drum can tear due to excess pressure of air caused by an injury. It also tears due to water pressure or sharp and powerful sound and its result victim cannot hear properly.

Care :

- 1. Do not allow wax product into ear, clean ear regularly.
- 2. Avoid loud noise of vehicles and factories.
- 3. Everyday clean your ear when you take a bath.
- 4. Never try to clean the ears with some needle or any sharp thing. The ears get scratched by doing so.
- 5. If mosquito or any other insect enters the ear, it should be got remove by an ear specialist.
- 6. If you found any symptom of ear disease, immediately consult with ear specialist.

Care of Eyes:

Various diseases of eyes:

- 1. Sty, 2. Conjunctivitis, 3. Long term inflammation, 4. Cataract, 5. Night blindness, 6. Different visual problem, 7. Color blindness.

Safety measures taken for deseases of eyes: Proper and time to time vaccinations must apply on children through primary or sub Health Centre.

Care:

- 1. Eyes should be splashed with cold water every day four to five times.
- 2. Do not use others handkerchief or towel.
- 3. Eyes should be never touched with dirty hands or dirty cloth.
- 4. Eyes should always be protected from dirt and dust.
- 5. If there is some foreign substance in eyes, they should not be rubbed; eyes should be washed well to remove the foreign substance.

6. No work like reading and writing work should be done with eyes in insufficient light. It causes strain upon the eyes. Always take attention about sufficient light during reading and writing which comes from correct direction.
7. Keep at least one feet distance from eye to books when you reading.
8. Don't use others eye glass of goggles.
9. Keep away from television at least three meter when you watching any program.
10. The eyes should be protecting from smoke.

Care of Throat

Throat is connected with other sense organs like ear, nose, tongue etc. if we not kept clean may cause serious disorders. Take proper attention on this organ to free from calf and cold and influenza, because food, air, water etc. passing through this way.

1. Protect Your Throat from Cold Temperatures. Get in the habit of wearing a scarf around your neck to keep the throat area warm.
2. Gargle every night with a mixture of warm water and salt. Just a pinch of salt will do. During cold and flu season, this is a habit that will help to disinfect the mouth and throat.
3. Clean coagulated cough inside the throat regularly.

Care of Teeth

Various diseases of Teeth;

1. Tooth Erosion - Tooth erosion is the loss of tooth structure and is caused by acid attacking the enamel. Tooth erosion signs and symptoms can range from sensitivity to more severe problems such as cracking.
2. Pyorrhoea – Pyorrhoea is a gum disease that comes when the roots of the teeth are loose thereby forming pus and shrinking the gum.
3. Bad Breath - Bad breath, also called halitosis, can be downright embarrassing. Gum disease, cavities, oral cancer, dry mouth and bacteria on the tongue are some of the dental problems that can cause bad breath.
4. Inflammation of the tooth (pulpitis) - Inflammation of the tooth occurs when one of the teeth has a large lesion of tooth decay which is not treated. As long as this decay is on the outside layer of the tooth (enamel) or in the dentin (layer below the enamel), the tooth does not hurt. However, once the decay reaches the center of the tooth and bacteria infect the nerves and blood-vessels, acute pulpitis occurs.

Rules for keeping teeth well:

1. Always clean your teeth with brush and tooth paste and wash mouth by clean water.
2. Brush teeth from up to downward direction daily two times after every meal.
3. Take vitamin A-B-C food regularly.

4. After cleaning the teeth, clean your tongue also. It removes bad smell from the mouth.
5. Hard substances such as almonds, walnuts etc. should not be cracked with teeth, because by doing so the teeth get broken.
6. Get your teeth tested regularly by a good and qualified dentist.

Care of Hair

Rules:

1. Whether we have long hair or short, always keep them clean and should be well combed.
2. Before take bath gently massage root of the hair.
3. Keep attention about dandruff and louse which may not set up into hair.
4. As far as possible, protect the hair from dirt and dust.
5. The hair should be washed with soap or some good shampoo and cleaned with sufficient clean water and oil should be applied to the hair occasionally.
6. Every person should have his/her separate combs.
7. As far as possible, hair dyes or artificial color should not be used on the hair. They are harmful for the hair.

Care of legs

Rules:

1. Must wash feet when you come from outside because fungal attack may occurs between the fingers of the foot due to deposition of dirt and sweat.
2. Take into consideration the right structure of our feet before buying shoes for your feet and do not walk bare foot.
3. Don't use nylon or artificial thread made socks.
4. Don't use high hill shoe. It may affect back pain or spondylitis.
5. Regularly cut the nails.
6. The feet should be washed and dried properly before retiring to bed.
7. Always take care on hill, sometimes you may suffer by hill crack.

Check Your Progress -1

- a. Write the name of three skin disease.

Ans:

- b. What is the cause of Inflammation of the tooth?

Ans:

- c. Write the name of two eye disease.

Ans:

4.5 Environment Cleanliness

Introduction:

Cleanliness is must in today's world as we all live in such in a good society and obviously if our home or work place is not clean one can't get into it. The term 'environment' means the surrounding habitat of man. In its widest sense, it refers to the entire earth with its green forests, vast oceans, the layers of air and oxygen, etc. In its narrowest meaning, environment means the immediate surroundings of man – his home, work place, market, neighborhood, etc. It also includes the atmosphere in which he lives. According to many scientists, the factor which influences the growth of individuals most is environment. But unfortunately, the various elements of environment such as, air, water, land, etc., are polluted and contaminated. Environmental pollution is “the contamination of the physical and biological components of the earth/atmosphere system to such an extent that normal environmental processes are adversely affected”.

Good habits for resistance of disease and better quality of lifestyle:

- Everyday brush your teeth after lunch and dinner.
- Everyday clean your body by taking bath with clean water and soap.
- Regularly clean your hair by soap or shampoo.
- Always wear clean cloths.
- Change your cloths when you return from market or school.
- Always clean and cut your nails.
- Regularly clean your year and eyes.
- Confirm that the shoes which you use outside your room can not use inside.
- Don't keep cloths and school bags at lunch table/place.
- Always wash your hands by soap when you take food, after taking food, cooking or serving.
- Wash your hands after handle money or coins or travelling from outside.

Need of sanitation for resistance of disease and infection

1. Different direction of disease and infection:

a. Infectious disease through hands: We do various types workthrough hands. Washing or sanitizing hands helps to prevent the spread of infections. Even though hands may look clean, they are always picking up germs, carrying them around and leaving them behind on the common things that you touch every day. Your hands pick up germs when you do everyday things like coughing or sneezing into hands, touching door handles and light switches, preparing food, changing diapers, and playing with toys, to name a few.

Germs like to enter your body through your eyes, nose, and mouth and 80% of common infections are caught when you touch your eyes, nose and mouth with hands that are loaded with germs. Other people can also get sick from the germs your unwashed hands leave behind on the common things you touch every day.

Washing your hands (or using alcohol based hand rub) is the best way to get rid of germs and protect yourself against many infections including the common cold and the flu. Cleaning your hands will help you stay healthy and will protect others from getting sick too.

b. Infectious disease through water: Another name of water is life. Because we did not live without water. Water-borne diseases are any illness caused by drinking water contaminated by human or animal feces, which contain pathogenic microorganisms. Water, sanitation and hygiene have important impacts on both health and disease. The most frequent causes of food or water-borne illnesses are various bacteria, viruses and parasites. Water-borne diseases are thought to be the most common of all acute illnesses. Symptoms vary with the causative agent and range from slight abdominal pain and nausea to retching, vomiting, abdominal cramps, fever and diarrhoea. Fever, chills, headache, malaise and muscular pains may accompany gastrointestinal symptoms. Vomiting, with or without diarrhoea, abdominal cramps and fever are common symptoms of viral disease or staphylococcal intoxication. Certain food-borne illnesses can present with meningitis or septicaemia or with neurological symptoms. Access to clean water is a key factor in reducing poverty, improving health and achieving sustainable development. Always disinfect tap, pipeline, tube-well, ponds, and any kind of sources of water and drink boil water for your good health.

c. Infectious disease through green fruits and vegetables: Fruits and vegetables provide vitamins, minerals, and fiber that your body needs. They're also packed with hundreds of disease-fighting phytochemicals - natural substances that work as a team to protect good health. While the exact mechanisms of specific phytochemicals are being studied, one thing is clear: the different colors of fruits and vegetables - green, yellow-orange, red, blue-purple, and white - all contain a unique array of disease-fighting phytochemicals that work together with vitamins and minerals to protect our health. But several times the fruits and vegetables are not fresh because maximum time they drop down in the market in open air condition or pesticide's makes it unhealthy for our life. So before prepare any food this should wash properly and then cook. Sometimes we eat some fruits and vegetables green, often they did not digest properly and at the result we suffer indigestion problem.

d. Infectious disease through insects: insects like mosquitoes, lice, fleas, bed bugs and ticks are able to transmit a number of diseases caused by infectious agents: viruses (chikungunya virus, yellow fever, dengue fever, etc.), bacteria (Lyme disease, plague, etc.), parasites (malaria, sleeping sickness, leishmaniasis, filariasis, etc.). Of the many diseases spread by insects, very few are actually caused by the insects themselves but rather, by other organisms passed on when they feed or bite. Insects are capable of spreading diseases caused by many different types of micro-organisms including bacteria, viruses, protozoans, etc. In these instances it is the micro-organism that is the pathogen (disease causer) and the insect involved is known as the vector. Biting insects are active at all times of the day and night. However, some prefer different times of day eg. the mosquitoes that spread malaria are mainly active after dark but the mosquitoes that spread yellow fever and dengue fever are active during daylight hours. Infections may be transmitted through Lizards, rats, Cockroach, Bugs and other insects or animals.

Some precautions would be taken for this type of infections - Wear loose fitting, light coloured clothes (insects can reach skin through tight clothing), long trousers and long sleeves. Don't go barefoot, mosquitoes are most active, so it's important to cover up in the evenings in malaria risk regions. Clean surrounding regularly and use disinfection aids like phenyl, DDT Powder, Dettol, Naphthalene etc. use properly.

2. Cleanliness in Home: It is rightly said that cleanliness is next to godliness. Cleanliness is the finest human endeavor. It should become the way of our life and we should include the noble habit from the very early days. Cleanliness is an integral aspect of our sustenance and progress. As dirt is a blot in our living, we should give priority to eliminate it from our lives. As a rudimentary step, our environment must be cleaned in all aspects. We should not litter garbage here and there. We must always keep one thing in our mind that our actions should not be a hurdle for anyone's comfort. Healthy living denotes clean surrounding and purity in thoughts. Cleanliness is the stepping stone of progress.

Attention should be paid to cleanliness and length of nails. Long nails are the ideal home for bacteria. Toilet must have been always clean, and water pipes need to work perfectly without a dripping and the clogging. Wash hands with antibacterial soap and hot water. Walls, floors as every object in home need to be clean. In clean objects, there should not be even minimum of dust or grease which can be good environment for germs. Raw food, especially meat and greens should be adequately separated. Rooms should be well ventilated and any type smoke inside the room is harmful for all so, special attention should be taken for this matter.

3. Safe preservation of drinking water and use: Water is essential for life. The amount of drinking water required is variable. It depends on physical activity, age, other health problems, and environmental conditions. Those working in a hot climate up to 16 liters a day may be required. Typically in developed countries, tap water meets drinking water quality standards, even though only a small proportion is actually consumed or used in food preparation. Other typical uses include washing, toilets, and irrigation. Reduction of waterborne diseases and development of safe water resources is a major public health goal in developing countries. The drinking water contribution to mineral nutrients intake is also unclear. Inorganic minerals generally enter surface water and ground water via storm water runoff or through the Earth's crust. Treatment processes also lead to the presence of some minerals. Examples include calcium, zinc, manganese, phosphate, fluoride and sodium compounds. Springs are often used as sources for bottled waters. Tap water, delivered by domestic water systems in developed nations, refers to water piped to homes and delivered to a tap or spigot. For these water sources to be consumed safely they must receive adequate treatment and meet drinking water regulations.¹

Access to safe drinking water is indicated by proper sanitary sources. These improved drinking water sources include household connection, public standpipe, borehole condition, protected dug well, protected spring, and rain water collection. Unprotected wells, unprotected springs, rivers, ponds or overhead water tank, and tanker truck water can be harmful for health. Access to sanitary water comes hand in hand with access to improved sanitation facilities for excreta. These facilities include connection to public sewer, connection to septic system, pour-flush latrine, and ventilated improved pit latrine. Unimproved sanitation facilities are: public or shared latrine, open pit latrine, or bucket latrine.

4. Safe drawing out of treated water: In today's home, we use water in lots of ways. We use water for various purposes for our daily life like bathing, washing cooking utensils, vegetables and fruits, garments, cleaning rooms, watering of houseplants etc. Women are forced to spend large parts of their day fetching water. For the purpose these works a large amount of water should be made refuse and so many germs can made through this dirty water. Mosquito and flies are evolving through this stored dirty water and few area or wall should be affected by damp also. As a result of that every members of your family can suffer a

lot of diseases. The water-related human health issues has become increasingly comprehensive, with the emergence of new water-related infection diseases spread through water, sanitation- and hygiene-related diseases which include salmonellosis, cholera, shigellosis, malaria. Poor sanitation, water and hygiene have many other serious repercussions. Children – and particularly girls – are denied their right to education because their schools lack private and decent sanitation facilities. So, for storage this treated water put off it to a particular soak pit or drawing out through drain.

This treated water can be used for garden or kitchen garden through a suitable planning. If there is no proper drainage system a permanent water soaking dig can made for the house hold purpose.

5. Safe drawing out of litter: There are so many litters deposit in house every day for house hold purpose like vegetables peel of skin, scale of fish, bones, paper bag, leafs etc. Lack of regular house cleaning and drawing out litters the environment of house may be polluted and disturbance of fly, mosquito various types of insects, rats, dogs, cats will be increased and also various types of disease should be formed.

For safe drawing of litters a pit can made on the soil, around 4 feet length and width and 3 feet depth and put all litters into this garbage and when it is totally loaded filling it by soil. Cow dung also put into this pit. After one year it would be putrefied it should be make compost fertilizer which very effective for garden. So, construction of this type of fertilizer pit is very easy and yours home will be became healthful.

6. Safe drawing out of excreta: Human excreta and the lack of adequate personal and domestic hygiene have been implicated in the transmission of many infectious diseases including cholera, diarrhea, typhoid, hepatitis, polio, cryptosporidiosis, ascariasis, and chistosomiasis. Proper excreta disposal and minimum levels of personal and domestic hygiene are essential for protecting public and also child health. Once pathogens have been introduced into the environment they can be transmitted via either the mouth (e.g. through drinking contaminated water or eating contaminated vegetables/food) or the skin (as in the case of the hookworms and schistosomes), although in many cases adequate personal and domestic hygiene can reduce such transmission. Therefore for maximum health protection, it is important to treat and contain human excreta as close to the source as possible before it gets introduced into the environment

For practical purposes sanitation can be divided into on-site and off-site technologies. On-site systems (e.g. latrines) store and/or treat excreta at the point of generation. In off-site systems (e.g. sewerage), excreta is transported to another location for treatment, disposal or use. Corporation, municipality or panchayat can help for building healthful sanitary latrine through their financial or technical assistance.

7. Safe preservation of food and use: We live through eating food and also we suffer few diseases through intake food. So food protection and food preservation have one aim in common they are intended to prevent contamination and spoilage of foods. All food must be protected at all times during storage and preparation from the following contaminants: any water that is not known to be safe, including overhead leaks and drips, dirty hands, coughing and sneezing, dust and soot, flies, rodents and other vermin, insecticides and other chemicals, unclean utensils and work surfaces, cigarette smoke. Anyone handling food should avoid bad habits such as scratching, touching the hair, nose or mouth, having unclean hair, unclean and long fingernails, smoking, and coughing or sneezing in food handling and preparation areas. They should always wash their hands before starting to prepare food, and after every interruption, particularly after using the toilet. People who have skin infections, diarrhea or sore throats should avoid handling food.

There are other general principles for preventing food contamination:

- All water used in food preparation should be wholesome.
- All dishes, glasses and utensils must be kept clean by regular washing in clean water, and clean utensils should be kept covered.
- All surfaces that come into contact with food should be meticulously clean.
- Food storage, preparation and serving areas should be free of pets, rats, mice and insects.
- Food should be covered, and kept separate from chemicals and poisons (which should be clearly labeled).
- Clothes that come into contact with dishes and utensils, and that are used to cover food, need to be changed daily and boiled before use.

8. Clean hands by soap after latrine: One cannot deny that toilets are an important part of living. Substances that are not need or are harmful to the body are passed out. These wastes are harmful and poisonous and can be used as agents in disease spreading. It is thus important to dispose well of these wastes so that they do not pose a threat to human health. Toilets are visited by users to wash their hands or to check their appearances in the bathroom mirror. It is important that the toilet is maintained well with a high standard of hygiene so that germs are not easily spread. Always aware every member of your family to wash hands by soap or liquid soap for health and hygiene.

9. Clean hands by soap before and after serving or eating: Hand is a very important part of our body. We do maximum work by our hands and also touch or catch various things. Due to different types of work our hands become dirty and also may be affected by germs. If the germs enter into our body we should be suffer various types' of stomach disease at the same when we serve any food by dirty hand it may also affect same. Antiseptic hand wash refers to washing hands with water and soap or other detergents containing an antiseptic agent. So, must clean your hands before and after eating by soap for protection your health.

10. Cutting nails regularly: Nails are made up of layers of protein called keratin and can be indicative of our general health. They grow on average 1mm per week, unless there are dietary issues or medical conditions that prevent this. The purpose of nails is to protect the ends of our fingers and toes from trauma and to help pick things up. Taking good care of your nails and maintaining their cleanliness is very important. As many people talk with their hands they are often seen by many and can represent to others an overall picture of our personal hygiene. We should cut our nails regularly and keep them clean. The cleanliness of nails is including in the cleanness of hands. The germs hidden in nails enter the stomach along with food and cause many ailments. Nails should not be bitten by teeth because dirt that creeps into them may cause several ailments. Nails can be kept clean by using a simple mild soap, warm water and a nail brush.

11. Regular brush teeth and bathing: Keeping your mouth healthy will help you to keep other parts of your body healthy as well. We should be brushing our teeth at least twice every day, once in the morning and once before bed. Be sure to brush all of your teeth, even the ones in the back that are hard to reach. If you can do it yourself, you should floss your teeth, too. Whenever we eat, food can be left behind between our teeth, and this can cause problems. Gently move the floss between each tooth in order to make sure your remove any food or plaque left behind after brushing. It is a good idea to brush your tongue in order to have fresh breath, too. Eating a healthy diet full of fruits and vegetables will help to keep your mouth and teeth clean.

Bathing cleans the skin. It also cleans the mucous membranes of the genital and anal areas. Complete or partial baths, tub baths, or showers are given. Most people like having their hair washed regularly. Many people enjoy the feeling of having their hair washed and feel better when it is done. The method depends on the person's condition, self-care abilities, and personal choice. Taking a bath or shower means washing your body with soap and washing your hair with shampoo. How often you take a bath or shower will depend on your activities.

12. Leave home with put on shoes: Shoes protect your feet from germs. Shoes can protect your feet from some acute injuries, but I've noticed that people step on nails with or without shoes. When your feet have a loss of protective sensation, the shoes (and socks) you wear can either help you to live a healthy and productive life, or can contribute to repeated open sores that may gradually lead to amputation. Many podiatrists believe that the number one issue with not wearing shoes is the lack of support offered to the foot and any damage that can occur as a result.

Without shoe walking has the possibility of picking up bacteria, fungal infections and viruses as a result of going barefoot. Possibilities include plantar warts, a viral infection that can often be found on dirty surfaces, or athlete's foot, a fungal infection that is commonly found in locker rooms and other wet surfaces. Another concern is the possibility of stepping on a piece of glass or a rusty nail that can lead to a tetanus infection. Also of concern is the possibility of contracting hookworm. Hookworm is a parasite that is found in animal feces. It enters the skin by burrowing under the surface when it comes into contact with the feet. Children can step on hookworm on the sandbox, dirt or grass.

13. Cover your mouth or nose by handkerchief when sneezing or coughing: Illnesses such as the flu are caused by viruses that infect the nose, throat and lungs. They're usually spread from person to person when an infected person coughs or sneezes. This means that if a person coughs or sneezes into their hands, they spread their germs to everything they touch. Keeping healthy and Preventing the spread of germs caused by coughing and sneezing:

- Cough or sneeze into handkerchief and say 'Sorry' if anybody with you.
- Cover your cough or sneeze with your hand; if you don't have a tissue paper or handkerchief, then immediately wash your hands.
- Cough or sneeze into the crook of your elbow.
- Keep frequently touched common surfaces clean, such as telephones, computer keyboards, doorknobs, etc.
- Wash your hands or use an alcohol-based hand sanitizer frequently. Avoid touching your nose, eyes or mouth to prevent germs from spreading.

14. Avoid coloured and aluminium coating food and sweet: Maximum foods are made by artificial colours which is very harmful for our health. Be it your favourite candy, tomato ketchup, jam, jelly, breakfast cereal, fruit juice, soft drink, sweet etc., all of these products are loaded with synthetic dyes. Synthetic dyes are coal or petroleum-based and at times are not even purified chemicals. These chemicals have a deleterious effect on your health and some of these chemicals are also carcinogenic in nature. Due to these colours we can suffer a lot of health problems like indigestion, stomach ache, head ache and also cancer.

A compendium is provided of aluminium compounds used in industrial settings, and as pharmaceuticals, food additives, cosmetics and as other household products. Most aluminium compounds are solids exhibiting high melting points. Asthma-like symptoms, known as potroom asthma, have been the most intensely investigated respiratory effect. Aluminium exposure from drinking water has been extensively investigated in relation to the development of neurological disorders.

15. Use ORS for treatment of stomach and diarrhea: Diarrhea describes bowel movements (stools) that are loose and watery. It is very common and usually not serious. Many people will have diarrhea once or twice each year. It typically lasts two to three days and can be treated with over-the-counter (OTC) medicines. Some people often have diarrhea as part of irritable bowel syndrome or other chronic diseases of the large intestine. The most common cause of diarrhea is a virus that infects the gut. The infection usually lasts for two days and is sometimes called “intestinal flu” or “stomach flu.” Diarrhea may also be caused by infection by bacteria, eating foods that upset the digestive system, Medications, Radiation therapy, Diseases of the intestines etc. Symptoms of diarrhea can be broken down into uncomplicated (or non-serious) diarrhea and complicated diarrhea. Complicated diarrhea may be a sign of a more serious illness. Symptoms of uncomplicated diarrhea include: Abdominal bloating or cramps, Thin or loose stools, Watery stool, Sense of urgency to have a bowel movement, Nausea and vomiting and the symptoms of complicated diarrhea include: Blood, mucus, or undigested food in the stool, Weight loss, Fever.

Oral rehydration therapy (ORT) or oral rehydration salts or solutions (ORS) is a simple, cheap, and effective treatment for diarrhea-related dehydration, caused by e.g. cholera. It consists of a solution of salts and other substances such as glucose, sucrose, citrates or molasses, which is administered orally. It is used around the world, but is most important in the Third World, where it saves millions of children from diarrhea—stills their leading cause of death. Oral Rehydration Therapy is the giving of fluid by mouth to prevent and/or correct the dehydration that is a result of diarrhea. As soon as diarrhea begins, treatment using home remedies to prevent dehydration must be started. In the human body, water is absorbed and secreted passively; it follows the movement of salts, based on a principle called osmosis. So, in many cases, diarrhea is caused by intestine cells secreting salts (primarily sodium) and water following passively along. Oral rehydration does not stop diarrhea, but keeps the body hydrated and healthy until the diarrhea passes. Recipe There are several commercially available products but an inexpensive home-made solution consists of 8 level teaspoons of sugar and 1 level teaspoon of table salt mixed in 1 liter of water. A half cup of orange juice or half of a mashed banana can be added to each liter both to add potassium and to improve taste. If commercial solutions are used, true rehydration solutions should be used and sports drinks should be avoided (especially in younger children) as these solutions contain too much sugar and not enough electrolytes.

4.5.1 School Health Programme – Health instruction, Health service, Health supervision

School Health Program - School Health Program may be divided in three parts.

1. Health Instruction
2. Health Service
3. Health Supervision

1. Health Instruction—Health instructions include scientific knowledge and experiences, educating the students to have better health attitudes, judgments and practices by the teachers, doctors, health staff or

any other responsible persons. These instructions regarding improvement of health should be incorporated in school curriculum. It is expected that the health knowledge gained and health experiences learnt by the students in the school will be continued by them in their adult life, so that they may always enjoy good health. The students make the concept of cleanliness, communicable disease, exercise, rest, nutrition, food, aids, drugs etc. Teachers/trained teachers will play a responsible role to give them about correct information.

2. Health Service - School health service include provision of all help to the students in maintaining and improving their health. These service include assessment of sound health, finding out physical and mental defects and correction them, prevention and control of various diseases, education for the handicapped children and provision of emergency care for the needy person. It also joint perseverance of Teachers, guardians and health specialists.

Health service is one of the most important parts of health planning. The various responsibilities under health service are-

1. Detection of infectious disease and immunization
2. Personal cleanliness
3. Mid-day meal
4. Regular health checkup and assessment
5. Health card recording etc.

Objectives of Preservation of Health:

Particular objectives of the ideal preservation of health planning are –

- i. Correct recording of the health data about the students like height, weight, physical fitness, mental condition etc.
- ii. Medical examination and its follow-up.
- iii. Alert students about First Aid.
- iv. Consciousness about the information of structure of the human body and its organs.
- v. Take necessary steps to cure attack and resistance of disease.
- vi. Make healthy atmosphere at school, like – sufficient light and airy classroom, arrangement of purified drinking water, appropriate playground etc.
- vii. According to age display the balance diet list for the development of growth and development.
- viii. Give advice about regular exercise and rest.
- ix. Develop and conscious about good health habit of personal hygiene and cleanliness.
- x. Consciousness about safety education etc.

Objectives of Health Service:

School takes various health service programs like –

- i. Supervision and guidance of general health at proper time.
- ii. Keeping records of health.
- iii. Always arrange First Aid.
- iv. Program arrange for prevention of infectious disease.
- v. Arrange health education.
- vi. Take necessary steps for healthy lifestyle.
- vii. Discussion about health; Program arrangement for seminar etc.

Programs of school health service are – Mid-day meal, cleanliness, pay attention to resistance of disease, regular health checkup and keep records into health card.

Health service programs outside the school are-

- i. Vaccination program carry out and inspire.
- ii. Organize blood donation camp.
- iii. Give proper prevention program to the sick persons.
- iv. Organize Aids awareness and hepatitis-B vaccination camp.

3. Health Supervision: In order to ensure good physical condition of the school campus, there should be healthy environment of the school and class room. The supervision should include that here is in every school healthful and conducive environment and hygienic atmosphere and at the same time regular students health supervision should be done by teachers or by Doctor (once a week or month).

Regular health supervision by the teachers:

- I. Teachers should be daily examining the students dress, behavior, study materials, teeth, ear, eyes, nails etc.
- II. Arrange treatments of measles, mumps, small pox, whooping cough, diphtheria etc.
- III. Keep attention to remove mental health problems like inferiority complex, anxiety, fear, cheerless, jealousy, hate etc.

Health supervision by the Doctor(once a week or month):

- I. Examine the sanitary system of the school, be scientific and report to competent authority.
- II. Examine the drinking water, either healthful for students and give suggestions to the authority.
- III. Examine the time table of the class; is it well planned and healthful for the students?
- IV. Give suggestions to the inexperienced teachers about health.
- V. Take prompt action if any symptom of infectious disease found.
- VI. Keep records of the student's health related matters regularly.

Programs for Preservation of Health:

The development of Health education programme depends upon players as well as student's physical mental and social health.

Generally these programs are two types. Like –

1. Preventive action: The school authority will take standard quality protection for the students to prevent from disease. Awareness of the cause of infectious disease and its extension to the students like – small pox, cough and cold, influenza, diarrhea etc. Keep school environment neat and clean like – not to spit here and there, keep more dustbin for storage of refuse matter which is not spread etc.

2. Cured action: The school authority must take necessary action about preventive action as well as cured action for the health of the students. Like – Arrange separate treatment for different types of infectious disease.

Programs for ideal preservation of health:

- i. Collection of correct data of the students about their health. Like- Height , weight, physical structure, nutrition, mental condition etc.
- ii. Take the scientific assessment of crippled physical organs.
- iii. Presentation about human body and its function.
- iv. Display the list of balance diet for the growth and development of human body.
- v. The students should be aware about various seasonal diseases.
- vi. The students should be aware about adolescence period and their various physical changes.
- vii. To help the students to make good health habit and care of their body.
- viii. To build up the habits of regular physical exercise, timely clear excreta, sleep, take food and rest.

Follow-up programs: To examine the student medically is not the end of the diseases in them. The follow up action with appropriate treatment is a must and should be taken. Special clinics or arrangement should be made exclusively for school children at the primary health centers, particularly in rural areas. The clinic days and timing should be such that children may take advantage of the facility and the time and days should be intimated to neighbouring affiliated schools. There should some beds reserved for students in the referral hospitals. The health examiners duty does not surrounded between detection of disease it also makes help to student's physical, mental and moral development also.

- I. Attention should be created by school authority, teacher in charge, Head of the Institution or any responsible person.
- II. To arrange treatment through health center affiliated to school.
- III. If there is no school attached health center then consult with guardian and arrange any hospital or nursing home for treatment.
- IV. Communicate with fallen sick student's guardian.

Medicative Health Center: Health center staff is responsible for implementation of school health program. The school health program is carried out in schools by the health center staff working together with schools

administrators/ teachers, local government, parents and community including both agencies and students. Priority should be given to school health program at primary school levels. In our country Student Health Homes act as health center. It is very expensive to arrange the treatment of critical cases at Students Health Home, treatment infrastructure available for general cases like cough and cold, influenza, wring worm, skin disease, eye, ear, and neck etc. If this type of health center deposes efficient nursing staff, technician, doctors then students must heal their health quickly.

Keeping health records: Very essential part of health preservation program is to keeping records of the students for assessment of their improvement or deterioration of health examination. For this occasion at the right from first day of school the teacher will prepare health card for every student for keeping records of health. Name of the student, class, age, height, weight, pulse rate, visual power, hearing power, blood group, suffering any disease etc. records should keep in this card. These records should very effective for further treatment.

Healthy Environment: To provide for healthful living in a healthful environment is most acceptable the responsibilities with accompany this right of all. Environment includes the building in which pupil work and teach as well as the ground used for play and recreation. So, healthful environment includes good sanitary conditions, proper water supply, safe sewage and refuse disposal system, lighting, ventilation, adequate facilities for emergency and first aid, and temporary cure of sudden illness.

The positive side of healthy environment –To help detection of disease and immunization, health development, physical, mental, emotional, and finally whole some development of the students. It is not possible to develop student regularly through good treatment or taking balance diet, also need to healthy atmosphere which helps to develop good health of the children.

Elements of Healthful Environment: A healthful environment needs the mentioned elements, like – 1) Pure air, 2) Sufficient sun light, 3) Germ free environment, 4) Pure drinking water, 5) Natural habitation, 6) Proper sanitation system, 7) Well equipped school health center, 8) Safety measures for Sound pollution, 9) Safety measures for water and air pollution, 10) Political stability and economical comfort, 11) Appropriate arrangement of play field and physical exercise, 12) Good arrangement of recreational activities etc.

Healthful School Environment: Healthful school environment consists of school building, site of the school in which child grows and develops. For the emotional, social and personal health, a healthful school environment is needed for a child. The sanitation of the school should be exemplary. There are some points which should depends on it –

1. **Location of the institution:** As far as possible the school should be centrally located with a peaceful and noise free environment. With good approach roads and away from cinema, market, factories, railway track etc. The school should have proper boundary wall with facing all around and free from all hazards.

2. **Shape and area:** The shape and area of the institution should be proportionate to number of the students, teaching and non-teaching staffs.
3. **Building and classroom:** The school building should be south facing, because the sunlight enter into the classroom directly. The door and windows of the classroom should be standard size.
4. **Office:** The area/size of the office room should be depends upon the number of teaching and non-teaching staffs. It will be situated at a particular place from where staffs as well as Head of the institution can follow every class room.
5. **Retiring room:** It is very difficult to concentrate 5 to 6 hours continuous study in a classroom. So, to overcome monotony a separate retiring room is needed, where few recreational indoor games should be arranged. As a result students will learn about his lesson with full concentration.
6. **Furniture:** Furniture in the class room should suit according to the age group of students. It will be better to provide single desk and chair. The seat should comfortable for the students and should be neat and clean. Blackboard should be appropriate size and colour and placed in such location that the students have to follow it.
7. **Library:** Every school have a separate ideal library room and this library will make up by well planned a huge number of reference books with magazines, newspaper etc. This library have sufficient light with open air and also have silent reading room by which students may prepare their lesson in this room.
8. **Play ground:** The play field of the school helps a student to build up physically, mentally and socially fit through different play activities. The memorable word of wisdom said by Swami Vivekananda “Be strong, my young friends, that is my advice to you. You will be nearer to Heaven through football than through the study of the Gita.” Playing activity makes a person strong and efficient. So, for the healthy development of students an educational institution must have a ideal play field with all facilities.
9. **Water supply:** The school authority must take necessary action to arrange pure drinking water for the students and staffs. Due to lack of pure drinking water students may suffer water borne diseases. At the same time proper sanitation is needed for health.
10. **Toilet:** The hygienic environment of the school toilets is an index of the state of its concern for health of the child. Toilet facilities should not only adequate but also its cleanliness and disinfection should be ensured. It will be always cleaned by phenyl, naphthalene, neurotic acid etc. and keep this things away from the children.

11. **Clinic:** A school health clinic helps in looking after the health of the pupils and for the systematic treatment of small diseases. There should be at least two rooms for school clinic or dispensary out of which one should be reserved for school doctor where the pupils can consult the doctor about their personal problem.
12. **Safety measures:** Every educational institution has lot of costly things as well as lot of students and valuable documents. An accident may destroy everything within a few minutes. So, proper safety measures should be taken by the school authority like fire extinguisher, fire bucket, fire alarm and also fire escape etc.
13. **Cleanliness:** Always clean class room, furniture, playground and surrounding of school premises. For this occasion the healthful environment condition grows activeness with cheerfulness.
14. **Exchange Good wishes:** For the flow of work and its continuation it is very essential to exchange good wishes to each other. If the employees give others to their respect and showing their sincerity for work then healthy work culture and mental development should develop for the employee. In this occasion one may share joy and sorrow to each other.

Healthy atmosphere in play ground: Play ground is the first and most important component of physical education program. Without playground it not possible to do any program of physical education. For daily exercise and play various types' games an ideal playground is need. Play field is called 'laboratory of physical education'. So every school of rural or urban area must have an ideal playground. The environment of an ideal playground depends upon –

1. Playground should be attached with school or center of the village.
2. Minimum length and width of the playground will be 130 x 90 meters.
3. Playfield should be surrounded by wall, so cattle can't enter into the ground.
4. Entrance of the field should be more than one.
5. Field will be full covered with grass and it's all around decorated by evergreen tree.
6. Play field may be north-south faced and there are enough seats for spectators.
7. Keep separate dressing room for boys and girls.
8. Arrange separate healthful toilets for boys and girls.
9. Field surface should be flat and center area of the field should proportionately high because due to heavy rain fall the field should not filled by rain water.

10. The drainage system around the field should arrange by the authority and also arrange pure drinking water.
11. Store room should remain a side of the ground for keeping sports equipment.
12. There should be a grounds-man for maintenance of the ground.
13. Arrange permanent sports equipment's like- goalpost, kho-kho poll, volleyball court etc.
14. Arrangement of First Aid is mandatory.
15. Around the ground arrange lights.
16. A retiring room exists for the officials and the teachers who are coming from other school.
17. Arrange allotted seat for delegates of two teams.

Causes of Environmental pollution

Environment Pollution occurs when pollutants contaminate the natural surroundings; which brings about changes that affect our normal lifestyles adversely. Pollutants are the key elements or components of pollution which are generally waste materials of different forms. Pollution disturbs our ecosystem and the balance in the environment. With modernization and development in our lives pollution has reached its peak; giving rise to global warming and human illness. Pollution occurs in different forms; air, water, soil, radioactive, noise, heat/ thermal and light. Every form of pollution has two sources of occurrence; the point and the non-point sources. The point sources are easy to identify, monitor and control, whereas the non-point sources are hard to control.

4.6 Record of Body Height and weight their use

Introduction:

Children's body weight and height is linked with his posture, sports and games and mental condition. A health record must be kept for all employees under health surveillance. Records are important because they allow links to be made between exposure and any health effects. Health records, or a copy, should be kept in a suitable form for at least 40 years from the date of last entry because often there is a long period between exposure and onset of ill health. Children's playing ability depends according to their height and body weight, proportionately heavy structured children can participate in wrestling, boxing etc. and thin can take part in long distance run, basketball, volley ball, badminton etc. The Body Mass Index (BMI) calculates according to body weight and height.

The formula is: BMI = $\frac{\text{Weight}}{\text{Height (meter)}^2}$ [1 inch = 2.54 cm]

Body Mass Index chart:

Weight (kg)	45.5	47.7	54.0	52.3	54.5	56.8	59.1	61.4	63.6	63.8
Height (ft -inch.)										
5'0"	18	19	20	21	22	23	24	25	26	27
5'1"	18	19	20	21	22	23	24	25	26	27
5'2"	18	19	20	21	22	23	24	25	26	27
5'3"	17	18	19	20	21	22	23	24	25	26
5'4"	17	18	19	20	21	22	23	24	25	26
5'5"	16	17	18	19	20	21	22	23	24	25
5'6"	16	17	18	19	20	21	22	23	24	25
5'7"	15	16	17	18	19	20	21	22	23	24
5'8"	15	16	17	18	29	20	21	22	23	24
5'9"	14	15	16	17	18	19	20	21	22	23
5'10"	13	14	15	16	17	18	19	20	21	22
5'11"	13	14	15	16	17	18	19	20	21	22
6'0"	12	13	14	15	16	17	18	19	20	21

Classification of BMI-

- i. Underweight= (<18.5)
- ii. Healthy weight = (18.5 – 24.9)
- iii. Overweight = (25 – 29.9)
- iv. Extreme obesity = (>40)

Importance of Immunization

Immunizations help protect you and your child from getting an infectious disease. When you get your child vaccinated, you help protect others as well. Vaccines are very safe. It is much safer to get the vaccine than an infectious disease. Vaccination protects children from serious illness and complications of vaccine-preventable diseases which can include amputation of an arm or leg, paralysis of limbs, hearing loss,

convulsions, brain damage, and death. Vaccine-preventable diseases, such as measles, mumps, polio and whooping cough, are still a threat. Immunization program depends on according to age, like-

Table of Immunization

List of vaccines for children’s immunization:

Vaccine	Yes /No	If yes (Date)
B.C.G		
Tetanus		
D.T.P		
Vitamin A		
O.P.V (Polio)		
Hepatitis B		
Measles		
Japanese Encephalitis		
Others		

Disease and detail of illness

[Keep records of medical examination at least two times per year]

2013 – 14 : 1st Examination

2013 – 14 : 2nd Examination

2014 – 15 : 1st Examination

2014 – 15 : 2nd Examination

2015 – 16 : 1st Examination

List of various types of disease and illness:

Inborn problem	Deficiency problem	Infantile problem	Disability/Impediment
1. Neural tube dent	1. Anemia	1. Skin problem	1. Visual problem
2. Dounas syndrome	2. Vitamine A deficiency	2. Otaitis media	2. Hearing problem
3. Taltpes (Club coot)	3. Vitamine –D deficiency	3. Tooth phthisis	3. Latespeaking
4. Inborn cataract	4. Bronchocele	4. Tooth grin	4. Learning problem
5. Inborn deafness			5. Late feeling
6. Inborn heart			6. Attention deficiency
			7. Others

4.7 Uses of Drinking Water

For our daily life the importance of water is unlimited, because water is essential for life. Water is a nutrient that makes up almost 70% of our body weight. Life process cannot occur without water. Water plays an important role in the body's molecules. So, every day drink sufficient water for maintain water base balance. Drinking water must be pure and safe.

Characteristics of pure water –

1. Tasteless and cold.
2. Without bad smell and natural air mixed.
3. Safe from infectious disease.

The various use of safe pure water –

Use for human body:

1. It helps to blood circulation and keep blood in a fluid condition.
2. It helps in the digestion of food and build up body.
3. It helps in removing the waste, harmful products from our body in the form of sweat and urine.
4. Maintain water base balance in cell.
5. It helps to operate various organs in our body.

Use for science of medicine:

1. Pure water is used for manufacturing various medicines.
2. A large amount of water is used for different purpose in hospital or clinics.

Use for other purpose:

1. It is an essential part of food and it used for drinking and cooking.
2. It is used for garments washing purpose and as a result keeps brightness of cloths.
3. Pure water used for swimming practice in swimming pool.
4. Pure water has special importance to the students for a school.

Use of Air -

Living beings may not live without air. Our life depends upon fresh air. They require air for respiration. As a result of reactions going on the body on in the body the persons come out with the production of heat and energy.

Characteristics of fresh air –

1. Colour and smell less.
2. Free from germs.
3. Sufficient oxygen (O) is there.

Use of fresh air:

1. Fresh air maintains a special role for respiration of the organism.
2. Fresh is need for keep environment healthy and natural.
3. Fresh air keeps everybody fit in school, playground, home etc.
4. Fresh air resists spreading infection.
5. Keep environment germ free.

Use of Light

We visualize everything through eye but without light it has no importance. Because we could not visualize anything without light. The good or bad effect of visual power is depends upon intensity of light. Sufficient light is healthful for eyes, insufficient light create bad effect of visual power.

Use of sufficient light:

1. Maintain correct visual power.
2. Without sufficient light good skills could not perform in playground.
3. Sufficient light helps to the students for studying in school.
4. Concentration of the students should grow up.
5. The production of a factory should be high due to sufficient light and also it helps to the workers to keep their visual power good.
6. Sufficient light reduce Street accident.

Sanitary arrangements:

Objectives of Sanitary toilets; (Resistance of disease and development of lifestyle quality)

Sanitation is a complete safe organized excreta dispose. One gram stool may have one crore virus, ten lakhs bacteria, and one thousand parasite eggs. The stool of a man creates the maximum virus and also may spread the germs through polio affected children, so it may endanger children's life.

Direction to use sanitary toilets –

- * Go to toilet with worn HowaiChappal.
- * Before seat on the pan it must be wet by water.
- * After use sufficient water poured out into the pan (at least 2-4 liter). Inspect that the dirt are not floating or touching into pan.
- * After use toilet wash your hands with soap. Confirm it that the nails are properly shortened.
- * Regular clean urinal, floor, footboard, pan etc.
- * Confirm that the door of the toilet is open and close properly.
- * When get over the school before finally lock must check and confirm that there is nobody inside the toilet.

Role of teachers

- * Discussion should be extending student to student and guardians of the society about hygiene.
- * Those students who are not having sanitary toilet in their home guardians should be aware and communicate with them to local administration.
- * If necessary Students, guardians, teachers will make a team and they supervise, investigate and arrange the awareness program about health and hygiene.

Check your Progress - 2

(a) How many times divided by school health program?

Ans:.....

(b) Write down four elements of healthful environment.

Ans:.....

(c) What do you mean by BMI?

Ans:.....

4.8 Food and Nutrition

Information of food and nutrition

Nutrition is the process by which the body uses the food to repair tissues and carry on other activities. The chemicals in food, which our body needs, are called *nutrients*. *Food* is a substance which produces heat and energy in the body, builds and repairs tissues. It also contains some roughage which adds quantity or bulk to our body. So, nutrients are the components of food that must be supplied regularly to the body in suitable amounts, from which animal get necessary components to make protoplasmic things

Planning for Food and Nutrition [Nutrition supply to child, cause of mal-nutrition and remedy]

A proper diet helps in prevention of certain illnesses and also helps to recover from diseases/injuries. An inadequate or improper diet increases the risk of different diseases. Eating balance diet is the right way to have all the nutrients that our body need.

The principles are taking for planning balance diet –

- i. Basal metabolic rate
- ii. Nature of work
- iii. Physical growth, need for giving suck mother during pregnancy
- iv. Need of carbohydrate
- v. Need of protein
- vi. Need of fat
- vii. Ratio of nutrition
- viii. For Cooking, digestion and splitting.

The six vital nutrients are namely carbohydrate, proteins, fats, vitamins, minerals, water. Three nutrients carbohydrates, proteins and fats supply us energy. The energy value of food is measured in heat units called calorie. Vitamins and minerals form the protective foods. They play a vital role in regulating various

body processes like growth, eyesight, formation of teeth and bones etc. Water holds the other elements in solution, both in and outside the body cells; these are called body preserving nutrition elements.

However, these nutrition elements should be synthesized or preserved in different animals by two ways. Like - Holophytic nutrition is that form of nutrition, characteristic of vegetable organisms, in which carbonic acid, ammonia, and nitrates are absorbed as food, in distinction from the animal mode of nutrition, by the ingestion of albuminous matter and Holozoic modes of nutrition is a method of nutrition that involves the ingestion of liquid or solid organic material, digestion, absorption and assimilation of it to utilize it.

Naturally Holophytic nutrition is found in autotrophic plants and Holozoic nutrition is found in human body.

The digestive system is responsible for processing food, breaking it down into usable proteins, carbohydrates, minerals, fats, and other substances, and introducing these into the blood stream so that the body can use them. The residue passes through the colon (where most of the water is absorbed into the bloodstream) and into the rectum where it is stored prior to excretion. This solid waste, called feces, is compacted together and upon excretion, passes through anal canal and anus. A balanced diet is one that provides the body with all the essential nutrients, vitamins and minerals required to maintain cells, tissues and organs as well as to function correctly. A diet that is lacking in nutrients can lead to many different health problems ranging from tiredness and lack of energy to serious problems with the function of vital organs and lack of growth and development. So, take a balanced diet is necessary for our good health.

4.8.1 Importance of Food and Nutrition

Table shows the elements of food, importance, from which we get

FOOD COMPOSITION TABLE:

(Nutrition values per 100 g.)

Source: Indian Council of Medical Research – 1990

Name the food	Water source (g)	Protein Nx6.25 (g)	Fat (g)	Mine rals (g)	Fiber (g)	Carbo hydrate (g)	Energy (kilocal orie)	Calcium (g)	Phosph orus (g)	Iron (g)
Cereals										
Barley	12.5	11.5	1.3	1.2	3.9	69.6	336	26	215	1.67
Corn	14.9	11.1	3.6	1.5	2.7	66.2	342	10	348	2.3
Wheat	12.8	11.8	1.5	1.5	1.2	71.2	346	41	306	5.3
Wheat/Atta	12.2	12.1	1.7	2.7	1.9	69.4	341	48	355	4.9
Maida	13.3	11.0	0.9	0.6	0.3	73.9	348	23	121	2.7
Bread (Brown)	39.0	8.8	1.4	—	1.2	49.0	244	18	—	2.2
Bread (White)	39.0	7.8	0.7	—	0.2	51.9	245	11	—	1.1

Name the food	Water source (g)	Protein Nx6.25 (g)	Fat (g)	Minerals (g)	Fiber (g)	Carbohydrate (g)	Energy (kilocalorie)	Calcium (g)	Phosphorus (g)	Iron (g)
Parboiled rice:										
Husking trim	12.6	8.5	0.6	0.9	—	77.4	349	10	280	2.8
Machine trim	13.3	6.4	0.4	0.7	0.2	79.0	346	9	143	1.0
Sunned rice:										
Husking trim	13.3	7.5	1.0	0.9	0.6	76.7	346	10	190	3.2
Machine trim	13.7	6.8	0.5	0.6	0.2	78.2	345	1	160	0.7
Grams:										
Bengal gram	9.9	20.8	5.6	2.7	1.2	59.8	372	56	331	5.3
Green gram	10.1	24.5	1.2	3.5	0.8	59.9	348	75	405	3.9
Black gram	10.9	24.0	1.4	3.2	0.9	59.6	347	154	385	3.8
Lentils	12.2	25.1	0.7	2.1	0.7	59.0	343	69	293	7.58
Soya been	8.1	43.2	19.5	4.6	3.7	20.9	432	240	690	10.4
Red gram	13.4	22.3	1.7	3.5	1.5	57.6	335	73	304	2.7
Khesari	10.0	28.2	0.6	2.3	2.3	56.6	345	90	317	6.3
Vegetables:										
Cabbage	91.9	1.8	0.1	0.6	1.0	4.6	27	39	44	0.8
Cauliflower leaves	80.0	5.9	1.3	3.2	2.0	7.6	66	626	107	40.0
Coriander leaves	86.3	3.3	0.6	2.3	1.2	6.3	44	184	71	1.42
Lettuce	93.4	2.1	0.3	1.2	0.5	2.5	21	50	28	2.4
Spinach	92.1	2.0	0.7	1.7	0.6	2.9	26	73	21	1.14
Beet	87.7	1.7	0.1	0.8	0.9	8.8	43	18.3	55	1.19
Carrot	86.0	0.9	0.2	1.1	1.2	10.6	48	80	530	1.03

Name the food	Water source (g)	Protein Nx6.25 (g)	Fat (g)	Mine rals (g)	Fiber (g)	Carbo hydrate (g)	Energy (kilocal orie)	Calcium (g)	Phosph orus (g)	Iron (g)
Onion	86.6	1.2	0.1	0.6	0.4	22.6	97	10	40	0.48
Potato	74.7	1.6	0.1	0.6	0.4	22.6	97	10	40	0.48
Red potato	68.5	1.2	0.3	1.0	0.8	28.2	120	46	50	0.21
Tapioca	59.4	0.7	0.2	1.0	0.6	38.1	157	50	40	0.9
Turnip	91.6	0.5	0.2	0.6	0.9	6.2	29	30	40	0.4
Mushroom	88.5	301	0.8	1.4	0.4	4.3	43	6	110	1.5
Pumpkin leaves	81.9	4.6	0.8	2.7	2.1	7.9	57	392	112	—

Other vegetables

Bean	58.3	7.4	1.0	1.6	1.9	29.8	158	50	160	2.6
Balsam apple	92.4	1.6	0.2	0.8	0.8	4.2	25	20	70	0.61
Brinjal	92.7	1.4	0.3	0.3	1.3	4.0	24	18	47	0.38
Cauliflower	90.8	2.6	0.4	1.0	1.2	4.0	30	33	57	1.23
Cucumber	96.3	0.4	0.1	0.3	0.4	2.5	13	10	25	0.6
Capsicum	92.4	1.3	0.3	0.7	1.0	4.3	24	10	30	1.57
Jackfruit seed	64.5	6.6	0.4	1.2	1.5	25.8	133	50	97	1.5
Ladies finger	89.6	1.9	0.2	0.7	1.2	6.4	35	66	56	0.35
Mango (green)	87.5	0.7	0.1	0.4	1.2	10.1	44	10	19	0.33
Papaya (green)	92.0	0.7	0.2	0.5	0.9	5.7	27	28	40	0.9
Tomato (green)	93.1	1.9	0.1	0.6	0.7	3.6	23	20	36	1.8
Prewar	92.0	2.0	0.3	0.5	3.0	2.2	20	30	40	1.7
Radish (red)	90.4	0.6	0.3	0.9	0.6	6.8	32	50	20	0.37

Name the food	Water source (g)	Protein Nx6.25 (g)	Fat (g)	Mine rals (g)	Fiber (g)	Carbo hydrate (g)	Energy (kilocal orie)	Calcium (g)	Phosph orus (g)	Iron (g)
Nuts and oilseed										
Almond	5.2	20.8	58.9	2.9	1.7	10.5	655	230	490	5.09
Cashew nut	5.9	21.2	46.9	2.4	1.3	22.3	596	50	450	5.81
Coconut (dry)	36.3	4.5	41.6	1.0	3.6	13.0	444	10	240	1.7
Mustard seed	8.5	20.2	34.7	4.2	1.8	23.8	541	490	700	7.9

List of Balance Diet: According to calories an adult person refers to take three types of food components; like –

Carbohydrate – 415 g ($415 \times 4.0 \text{ K.Cal} = 1660 \text{ K.Cal}$)

Proteins – 100 g ($100 \times 4.1 \text{ K.Cal} = 410 \text{ K.Cal}$)

Fat – 100 g ($100 \times 9.3 \text{ K.cal} = 930 \text{ K.Cal}$)

Total 3000

K.Cal

Recommended daily balance diet list for adult person is given below –

Carbohydrate type's food

- i. Cereals 400 – 500 g
- ii. Sugar 50 g
- iii. Green vegetables 150 g

Protein type's food

- i. Fish/Meat/Egg 85 – 100 g
- ii. Pulses 75 – 85 g

Fat type's food

- i. Oil or Ghee 50 g
- ii. Milk 500 g
- iii. Water 2 -3 lit
- iv. Any one fruit

A complete balance diet may be the one which contains all the nutrients in correct amount. The nutrients in a balanced diet differ according to age, health, occupation, sportsman, students, pregnant women, factory worker etc. and also there are additional requirements for special situations.

So, when prepare a balance diet chart always remember about the requirement of energy for that person. For the measurement of energy must have the correct information of age, sex, body weight, height, nature of work etc. So, as per nature of work balance diet chart will be different for players, students, pregnant women etc.

For vegetarians 100 -125 g Bengal gram and ground nut would be taken as a substitute of fish, meat or egg, and regular 2 to 3 liters water drink positively.

4.8.2 Under nutrition / Mal-Nutrition

When a person is not getting enough food or not getting the right sort of food, malnutrition is just around the corner. Malnutrition or malnourishment is a condition that results from eating a diet in which nutrients are either not enough or are too much such that the diet causes health problems. It may involve protein, carbohydrates, fat, vitamins or minerals.

These types of deficiency mainly two types –

i. Under nutrition: When insufficient food is taken over a long period of time, it is called under nutrition. It results in reduced body weight and multiple nutritive disorders.

ii. Mal-nutrition: Malnutrition is the condition that develops when the body does not get the right amount of the vitamins, minerals, and other nutrients it needs to maintain healthy tissues and organ function. Malnutrition initially two types. Like –

- a. Chronic malnutrition:** characterized by delayed growth in the child, who will not, be a healthy height for their age.
- b. Acute malnutrition:** characterized by insufficient weight in relation to the child’s height (emaciation). Acute malnutrition can be moderate or severe according to the child’s weight.

Problems and symptoms of malnutrition: The most common symptom is a notable weight loss and height should be shorter. Their resistance power can decrease. The affected malnutrition children usually suffer stomach problems and also suffer cough and cold. They also suffer respiration problems.

The diseases which may occur due to malnutrition or under nutrition are given below-

Nutrients	Deficiency diseases
Protein	Marasmus
Protein	Kwashiorkor
Vitamin – A	Night blind ness
Vitamin –B	Beriberi
Vitamin - B	Glaciates
Vitamin – B	Anemia
Vitamin - B	scurvy
Calcium	Rickets
Iron	Anemia
Iodine	goiter

Safety measures: Malnutrition in early childhood has serious, long-term consequences because it impedes motor, sensory, cognitive, social and emotional development. Malnourished children are less likely to perform well in school and more likely to grow into malnourished adults, at greater risk of disease and early death. Malnutrition is harmful for performance development for the sportsman. So, for the prevention of malnutrition the sportsman should follow the under mention guidelines –

- i. It is not right to perform strenuous work or exercise after heavy meal.
- ii. Naturally noted gymnast or sportsman just takes daily one gram protein as per body weight.
- iii. A few hours before of any strenuous exercise or game is not right to take much carbohydrate.
- iv. Players are right to take a balance diet regularly. As a result the requirements of vitamins, proteins, and minerals will naturally fulfill. Regular taking balance diet and fresh vegetables they may protect from malnutrition.

4.9 Let us sum up

The following discussion has been made in this unit:

Concept of health and importance, need of growing child, health education, cleanliness of environment, constructing chart of height and weight, vaccination, safe drinking water, arrangement of proper lighting in class rooms, arrangement of fresh air, nutrition of children, food habit, nutrition, malnutrition and its remedy etc.

4.10 Unit-End Exercise

1. Write within 25 words:

- a. Give the concept of health education.
- b. What are the objectives of school health service?
- c. How will be environment pollution?

2. Write within 250 words :

- a. Write down the aims of health science.
- b. What is nutrition? What is malnutrition? What steps you will you take for malnutrition?

3. a. Write down the definition of health according to World Health Organization (WHO)

- b. Write two needs of growing child for their good health.
- c. Write few names of skin disease.
- d. How many times we can divide school health program and what?

- e. Write the formula of BMI (Body Mass Index).
- f. Write few names of inborn disease.
- g. Which principle will you take for nutrition planning?
- h. Write few names of malnutrition.

4.11 Answer check your progress

Check your progress -1

- a. Ring worm, Itching, Pimple
- b. Lac of regular dental care and vitamin deficiency
- c. Sty, night blindness

Check your progress -2

- a. Three parts of school health program
- b. Fresh air, purified drinking water, sound pollution, play field, necessary steps of physical exercise
Body Mass Index

Unit — 5

Organizing Recreational Activities, Sports and Games

STRUCTURE :

- 5.1 Introduction
- 5.2 Objectives
- 5.3 Modern Physical Education
 - 5.3.1 “Education is the manifestation of perfection already in a man” Swami Vivekananda.
 - 5.3.2 Misconcepts about Physical Education Physical Training
- 5.4 Definition of Physical Education
- 5.5 Growth and Development
- 5.6 Physical Ability/Fitness
- 5.7 Various Minor Games for Growing Children
 - 5.7.1 Free Play
 - 5.7.2 Tumbling
 - 5.7.3 Major Games
 - 5.7.4 Jumping and Throwing Events
 - 5.7.5 Indigenous Games
- 5.8 Importance of Sleep and rest
- 5.9 Posture
- 5.10 Yoga Education
- 5.11 Let us sum up
- 5.12 Unit-End Exercise
- 5.13 Answer check your progress

5.1 Introduction

Play is universal in nature. The play is not boundary by any caste, colour, creed nationality etc. Every child plays during his infancy and childhood stages of growth and development. Play is an innate characteristic of the child. Play activity has direct effect on the growth and development of a child. Play activities of animal as well as human beings are and large marked by freedom, spontaneity and pleasure. Through play

it will create children's strong neuro-muscular body and develop their personality, general behavior, social adjustment and so on.

Regular maintenance of play ground is very essential in order to get proper use out of it and give the students a fair chance to improve their health by playing games in it. The playground must be surrounded by a boundary wall and it is essential to grow grass with a plane surface. Regular watering, mowing grass, leveling playground, cleanliness, drainage must be maintained.

Every movement will depend on children's physical capacity. Un-necessary particular a movement does not allow for a prolonged time because the children can suffer muscle pull or injury.

5.2 Objectives

Through this lesson unit the trainee teachers will learn about skills and apply to others –

- Learn about recreational play and games
- Know about major games like football, volleyball, kabaddi, and kho-kho.
- Learn about various types of jumping and throwing techniques.
- Know about yoga.

5.3 Modern Physical Education :

The modern concept of Physical Education is all about learning through various physical activities. Previously Physical Education was thought of as Education of the Physician. But it has evolved with time and developed scientifically and logically based on education through physical activity.

Even today many of us think that Physical Education is only about drill, exercise, games and sports. Any kind of sports or games is a part of the activities involved in physical education.

Along with sports skills Marching, Callisthenics, Various Apparatus Drill, Yoga, Camping etc. are also very much a part of Physical Education. Just participation in any sport is not enough. For any kind of skilled sport it is important to practise running, jumping, diving, landing, throwing etc. as fundamental movements. Often the performance is based on these fundamental movements. Therefore to become competent and successful in any skill one must engage regularly into these fundamental activities and physical education as it develops both body and mind.

Thus according to the modern concept of Physical Education everybody should perform various physical activities alongside daily work as it is important for overall development.

5.3.1. Misconcepts about Physical Education Physical Training :

Often Physical Education is confused with physical training that builds up patience, strength and health. These are mainly done in the Army, Police and other such Defence departments.

This concept prevailed till the end of 19th century. To attain a good physique weight lifting / weight training was done. Health drink, Sports, Athletics, Gymnastics etc. also come under these misconcepts.

5.3.2. “Education is the manifestation of perfection already in a man”..... Swami Vivekananda.

“ The overall development of human race, soul and mind is education”..... Mahatma Gandhi.

The focus of general education is to build up good citizen with rational thinking and to act properly according to a given situation and also enhance their inherent skills and talent. Physical Education being a part of the general education aims towards the same goal of bringing about an overall development in a child and make a good citizen out of him. It imbibes discipline, self confidence, social awareness, honesty, team work and the spirit of co-operation towards others and to follow rules. An hour of swimming or any other sports is considered mandatory every evening after a days class & learning. Physical Education completes general education.

In our country many educationist feel that Physical Education is not necessary but a waste of time and both cannot co-exist. For some unknown reason they have alienated Physical Education. They think Physical Education is only the means to participate in competitions like Olympic meet etc. and win prizes. But this is a misconception.

If we look into history we will see that around 6th century BC Pythagoras the great Philosopher, Mathematician and scientist participated in Olympics and have win many prizes. Noble prize winner Pablos was also a renowned sportsman of Russia. In 1954 the first world record of complete 1 mile in just 4 mins. was achieved by a doctor in neuro science named Roger Barrister. Thus general education has no enmity with Physical Education.

Thus Physical Education is a part of complete education which is important for the development of body, mind and indirectly the society.

Summary : The contribution of Physical Education in the Primary Education is infinite. The development of a child's physique is important in relation to his other talents and growth. Balanced diet, healthy surrounding, rest and exercise are the four element of good health. The co-ordination of all four is the study of Physical Education.

5.4 Definition of Physical Education :

“ Education through physical activity” is the modern scientific definition of Physical Education. As per Physical Educationist J. F. Williams, “Physical Education is the compilation of all the methodical physical activity directed towards a specific goal or aim. Meaning Physical Education involves those physical activities that ensures the development of discipline, following rules, self confidence and team work in a child.

According to Charles A. Bercher, famous Physical Educationist, physical education is an integral part of education and cannot be separated from general education. To achieve the goal of education, physical education is important. Physical education a work and process that has its aim in the environment of human performance through the specialised physical activities selected to realise the outcome.

Aims of Physical Education :

The aim of Physical Education is to bring about overall development of body and mind and build up the child's personality. The curriculum should be so organised that the child participates willingly and enjoys the activities.

Objectives of Physical Education :

1. Achieve good health
2. Achieve good habits
3. Achieve Physical Skills
4. Co-ordination of nerve and muscle
5. Personality Development
6. Achieve knowledge and skill
7. Social development

Relation between Physical Education and Sports Science :

In the 20th Century remarkable development in the world of sports has been observed since 1968 onward. The reason for this is that extensive scientific research and use of technology in sports which is an integral part of Physical Education. Various topics of scientific research and theory has been used to uplift and modify the structure and technical of sports level. The scientific research and development is so widespread in sports that “Sports Science” has become an individual subject. Along with this sports medicine it has developed as a subject with its own curriculum.

The development of a “Man” to a “Sports Man” is now entirely based on scientific method and planning. Similarly sportsman and his environment, or the treatment and rehabilitation of a sportsman is taken cared by sports medicine.

Scientific Fields related to Sports Science & Sports Medicine are :-

Study of applied limb placement, Physical Science, human-force-science, human-chemical science, nutrition and diet, Ortho-science and Ayurvedic, Psychology.

Physical Education and health :

The main theorem of Physical Education is Health. Any nation’s economy, prosperity and development is based on its citizens’ / population’s general health. Regular balanced diet, rest and sleep along with the practice of physical education are the elements that build up good health. Swami Vivekananda said, “We don’t want hospital, we want sports field and such environment.” It means man does not want to buy health but build health. Physical education is incuitable for building health.

5.5 Growth and Development :

“Growth” and “development” these two words are often used the same context. But they differ form each other. Usually “Growth” means physical growth referring to the growth in size, volume and weight of a living being.

On the otherhand “development” refers to the “quality” Qualitative change in the child’s maturity and growth is the development process. **Tehe** natural process of Functional improvement in growth which is regular and continuous cannot be seen in naked eyes.

Heredity and Environment play an important role in a child’s growth and development. **Heredity** and Environment **influnces** the various levels growth and development of a child.

Thus development is not just limited to the growth of size and shape of a child but is focussed towards the **maturity** with collective evolution of continuous functional improvement.

Objectives :

In the next part of this until we will learn about child's physical growth, motor development and their Co-ordination.

Child Psychology:

To Know a child better and for better development psychiatrist have divided the development level:

- (1) Infancy -- birth to 5 years of age
- (2) Childhood -- 5 years to 11-12 years of age
- (3) Adolescence -- 12 to 14 or 19 years of age
- (4) Adulthood-- 18 years and above

Childhood is further divided into

- (1) early childhood (3 to 6/7 years)
- (2) Middle Childhood (6 or 7 to 8 years)
- (3) Later Childhood (8 to 11/12 years).

Co-ordination of physical growth and Motor Development during infancy:

Infancy is the fastest period of growth and Development. During the period growth / development of both internal and external organs take place. This growth is a combination of a child height, weight and form. Various characteristics also develop. A child takes help from parents and elders for various situations during this period. His behaviours are entirely based on the child's emotion. Child's day today needs to be fulfilled by his parents until he is capable of doing so himself.

Development starts from ordinary to specialised skill level. For e.g. If a sportsman wants to excel in a particular sport first he has to master the basics of the game. Later on based on this experience he will be able to refine his skill and achieve excellence.

Again development also depends on heredity and environment. This heredity and environment is relevant for the growth and development of sports persons.

Usually during middle childhood the characteristics of growth and development are comparatively different. Rate of growth is less and slow. In this level a girl child's development is more than that of a male child.

Co-ordination of motor development is seen but the development is not complete. Eye hand co-ordination takes place but is not up to the mark for school learning. Natural intuitive response may be seen.

These skills develop continuously within the child through communications. Children show high energy through it does not sustain for long. The heart grows rapidly during this stage. Through active participation learning is enhanced. But level of concentration is very low. They love to work in a team.

Amongst a boy of 7-8 years and a girl of 7-8 years the difference of attention level can be noticed. They have a lot of energy but also tire easily.

Later childhood or **Eraly** Adolescence :- Rate of physical development is low. There is physical Stability. They are keen towards **brane** adventurous activitis. Continually engrossed in physical activity. Growth rate of height and weight is regular. Bones mature. Physo-motor development occur actively.

Generally **speking** this level is also called “State of retirement”. Because in the next level the rate of growth is very rapid, specially in respect to height and weigth. Sometime this happen between the age of 9-13 yrs. This rapid period of growth comes to the girls earlier than the boys.

Physical Development:

At the begining a child is entirely dependent on his parents for its growth and development. His behaviour is related to his inherent nature. A Child whose physical development does not take place is dependent on others for his various needs.

During this time the rate of growth is very height. The weight of the chilld increses at the rate of 3 times that of his birth weight.

At birth a child’s bone is very soft and frogile. To ensure their proper growth their diet must provide them with calcium, phosphorus and other minerals. On one year a child’s limbs have capacity to grow twice the size of what was at birth.

The brain too develops very fast. In two years the weight of the brain gains twices or more of what it was at birth. By six years of age the brain matures completely.

Important qualitative changs are noticed in the physical growth of 2 to 3 yrs old children, Specially, on their movement of organs. Though psycho Motor Skill are developing hand and eyes cordination is not good enough. Most of their temporary teeth appear. Here Male & girl child’s rate of growth is same. Slowly they learn the skill of consuming food by themseleves and dressing themselves. Language skills develops to, learns to use the toilet. There is a change in their sleed order. They are always active when awake. Thus they tire easily.

Girl child grows taller and stronger than the male child. Their reproductive organs start developing. Other Signs of puberty is noticed during this time.

Their nuscles grow. Various parts of the body develops **iregularly** and they have the urge of eating at their with--

Instructions for Inteligence and development:

At the primary level parental love and adoration is very important. Theyshould be allowed activities/ movements within a specified area. After this phase they should be brought out of their known sphere. Children between 2.5 yrs. and 5yrs. need proper guidance. They should be given lot of scope for active perticipation. Proper tools are to be used to give the 5 yrs. old adeguate training for Motor development.

Continuous encouragement is essential for growth and development of 6-9 yrs. old. Various skill based activites should be supervised with minimum interference. They should be assisted to achive acceptable behaviour and habits.

Necessary physical education activity for growth and development :

Age : upto 5 yrs.

- (a) A child is active since birth and playing is a parts of his life. Thus he should be provided with proper playing environment.
- (b) When an infant is in the cradle his physical activity is all about his limb movement.
- (c) As a child grows up he does not want to sit like an idol. He loves to move about. Thus some simple exercise like running, jumping etc. are very useful.
- (d) Children of this age loves toys. Thus toys can be used as a medium of play and exercise.
- (e) Children of this age are selfcentred and want to play alene. Thus to overcome this situation team games should be incorporated so the qualities of a social being is imbibed in him and he stops being lonely.

usually at the age of 5 years children are introduced traditional education or schooling. So the physical education curriculum should be focussed on building up the foundation of children.

Age : 5 to 11 yrs.

- a) Usually before comming to the primary school they go to the pre-primary school and have achieved controll one's fundamental movements . Thus they have already exprienced the activities of physical education.
- b) Exercises of long duration should not be a part of their activity. Even if they are hyper active they need rest very often.
- c) There should be variety in the activities.
- d) Rhythmic activity like folk dance, legim etc. have an important part in physical education. Children enjoy them. These activities build up. Motor development, physical balance movements and rhythmic concept in a child.
- e) Children are imitating and loves role playing, So, drama and mime can play an important role here.
- f) Simple & Careful Mode of Relay Race may be included in the curriculum.
- g) Swimming can be included in the curriculum.
- h) Rhythmic dance should be made mandatory, Towards the end of this level students should be allowed solo performance.

Intra Competetion is also very important.

Relation between growth and development:

Intelligence or **Ia** is the quantitative unit of growth and development is the qualitative unit of growth. A child's journey of development starts on the **basis** of his primary growth. Two fields are very important for a child's physical skill. Heredity, environment, balanced diet and habits and rest are important too. Physical activity lead to good health. Thus growth and development is initiated through physical activity.

5.6. Physical Ability/Fitness

Fitness/Ability is something which a man has to acquire. Physical ability is a part of overall strength. Physical ability is that physical condition due to which a person carries out his daily activities with efficiency. And also have enough energy stored to engage in physical training and sports in his free time. This energy can help to face unexpected emergency situations and display the basic parameter of physical skill that can prevent Hypokinetic disease. In one word physical ability is that acquired skill by which a person can perform all physical activities in a given situation at a satisfactory level.

Physical fitness/ability is directly related healthy life style. To achieve general physical ability is also an objective of Physical Education Curriculum. With the help of physical ability a person can attain speed, force, balance etc. of atleast up to a certain level.

For all kinds of sports a certain standard of physical ability/fitness is necessary.

Division of Physical Ability/Fitness:

- (a) Physique Health Related Fitness
- (b) Performance Related Fitness
- (c) Motion Fitness
- (d) Weight Control and Obese free physique

Factors of Physical Fitness:

- a) Speed
- b) Endurance
- c) Strength
- d) Force
- e) Balance

(a) Speed :

Time taken to cover a specific distance depends on speed. Speed is related to time. To increase speed reaction time and action time should be upgraded. Practise of small distance (30m). Acceleration run improves reaction time. In perspective to different stimulus reaction time can be reduced. Increase in muscle power enhance speed.

There are five classes of speed:

- a) Reaction ability
- b) Acceleration ability
- c) Locomotion ability
- d) Speed Endurance ability
- e) Movement Speed ability

To measure speed Electronic timing device is used.

(b) Endurance:

Endurance means to be able to work for long hours and keep depression and tiredness at bay. Slightly reducing the intensity one can work for long hours. Endurance is the combined output of heart, blood vessels and the respiratory organ. According to the sports scientist, the ability to prevent tiredness is endurance. This is one of the main factors of Physical Fitness/Ability.

Endurance can be further classified into -

Short period endurance

Medium level endurance

Standard period endurance

Energy based endurance

Speed based endurance

Endurance level is measured by Cooper's Test.

Harvard Step Test, Tread Mill Test, Bicycle Ergometer Test etc.

(c) Strength

Strength is the force exerted by the muscle against any resistance. One or a collection of muscles when in contraction exerts force against any resistance it is called Strength.

There are three types of Strength.

Maximum Strength

Explosive Strength

Strength Endurance.

Weight Resistance Exercise help in upgrading strength. There are 3 types of Weight Training :

Isotonic Exercise

Isometric Exercise

Isokinetic Exercise.

Vertical Jump, Grip Dynamometry, Stensyometer are the various ways of measuring strength.

(d) Fierceness:

Here fierce means to carry out movements of our body parts in different directions at a very high speed. Fierce is the ability in the person to change direction of his action with ability and speed. In sports such movements are vital. Kho-kho, Football, Basket ball, Badminton and all other speed based sports require fierceness as a parameter of skill for the sport. Fierceness is a combination of speed, strength and changing action ability. Its measuring parameter is : Squat, thrust, Karpi Test, Boomerang run, 410 Stallion Run. It can also be measured in laboratories by the film cramlisi's method.

(e) Balance :

Body balance is the ability to stand erect steadily. Usually we do so in two specific situations. Control nervous system's semi circular canal, bio-synthetic perception and muscle-bone joint and tendons and thirdly visual perception lead to this balance of the body. Body balance is of infinite importance in gymnastics.

Influence of Physical Fitness in skill development

Skill development is much dependent on physical fitness and the strategies related to the sports. Along with techniques one must upgrade his physical fitness too. Otherwise one performing with least exertion has more chances of winning the competition. Exception has been seen too.

To get success in the sports field one needs to have a standard level of physical fitness.

5.7. Various Minor Games for Growing Children

1. Walk like elephant

Students slightly lean forward and put their one hand behind the back with hanging condition that's like elephants tail. Now other hand keeps on the nose like as trunk of an elephant. Then they walk forward by moving head, trunk, and legs like elephant.

2. Boating

'Let's come for boating, play like boatman'. Seat down on the ground with apart your legs forward. Keep your hands together near chest like to catch the ply an oar and lean forward then stretch hands towards foot. Next moment again seat straight and hands return to previous pose. This action continues fast and slow motion.

3. Cycling

Extend two hands forward with close-fisted as like you are going to cycling. Shouted as cycle bell ring like krig-krig and moving towards various directions.

4. Cross the river

Students stand two line formations facing one another. The distance in between this two lines are two to three feet; this gap of this line denotes a river. When teacher gives signal to jump they try to jump forward by both legs and stand on another line. Those who are failure to cross the river they are giving out.

5. Swing like a tree of storm

Student knows that the trees are swing due to heavy storm. Like a tree the students stand on their foot apart and raise their both hands over the head. They swing their body left to right and also both hands slow to fast. At last the students lie down on the ground from swing condition.

6. Fly like bird

Stand erect and extend both hands sidewise. Swing hands slow and fast like flying birds, move various directions, sometimes and knee down.

7. Move like aeroplane

Stand erect and extend both hands sidewise like flying birds. Run various directionslike left or right, slow or fast keeping hands straight.

8. Fell mangoes from tree

Extend right hand over head and get ready for vertical jump for fell mango from tree. When students jump then everybody shout together – ‘Aam jadi chao, jore laf dao’. Simultaneously they can change their hands.

9. Visit the zoo

Children make a file and hold the waist of the forefront person by two hands. The children who stand first he will act as an engine of a train. Behind the engine other children act as compartments of the train and the last man act the guard of the train. After blow the whistle everybody runs and follows their engine and at the same time everybody sought together – ku-jhik-jhik / bho etc. Children are now going to visit the zoo. Few children (five to eight) make another short file and act as the group of tiger, elephant, horse, and chimpanzee. Animal group's act their natural behavior into the restricted area. After visiting the zoo all the children make a circle and seat down. When the teacher indicates them to act as any one of the animal then they do so.

5.7.1. Free Play: Simple tag games-chain tag, cat and rat:

A playful child looks very energetic, highly spirited, and healthy when he is deeply involved in his play activities. Any play without physical activity is like the body without a soul. Play is not only a biological satisfying activity aiming to help human survival but it is also woven in the intellectual texture of personality. Free play is very enjoyable to the children's because there is no rules and regulation.

Like this type of play children enjoy tag of wire, cat and rat etc. For tag of wire, children makes two team and try to pull other team towards the own side. Through this play and they can develop their muscular power.

For cat and rat, Children make a circle and catch one another's hand; from this group one player will rename cat and another rat. Cat always chase rat, circle made players allow rat to enter and exit from the circle but they did not allow cat to do so. Circle made players resist cat to enter and exit by keeping their hand catching condition. If cat may touch the rat then the rat declared out and another player will get the chance to play instead of this two.

5.7.2. Tumbling:

Forward Roll

Process:

1. From deep squat position with knees together, place hands on mat approximately two feet in front of toes.
2. Push down backward with feet to extend legs and lift hips upward.
3. Bend arms and lower upper shoulder area to mat.
4. Keeping legs extended, continue rolling, and as soon hips have contacted mat, tuck legs and come to squat position reaching forward with hands and control body balance.

Backward Roll

Process:

1. Assume deep squat position with knees together hands in front of body on mat partially supporting weight.
2. Tuck heads, push body backward off fingertips, and immediately transfer hands, palms up, to side of neck at shoulders.
3. As hip contact mat, push downward on mat with feet and extend legs.
4. Maintain straight legs until hands have contacted mat. Place toes on mat overhead and simultaneously tuck legs.
5. As hip go overhead, keep elbows close to head and neck area, extend arms, and come to squat position.

Cart wheel

Process:

1. Facing forward, lift arms overhead while lifting leg. Step forward onto left foot while shifting weight to same foot
2. Place left hand on mat with fingers pointing to left side of the body.
3. Forcefully swing right leg upward and immediately execute a strong push with left foot.
4. As body executes a 90 degree turn, place right hand on mat about fourteen inches directly in line with left hand. Push off mat with slightly bent knee.
5. As left foot contacts mat, right leg is already in motion with a backward-upward swing. Right leg extends and upper body is raised. Entire body ends up facing the same as it did in starting position.

Camel walks in pairs

Process:

1. Facing forward towards your partner, you will take in the arms your partner and then you slip-knot by legs.
2. Then you bend your body back and touch your hands on the floor, and then you insert your body between two legs of your partner.
3. Partner will lean forward slowly and touch the floor by his hands. Now you hold your partners ankle.
4. Your partner starts to walk, you try to straight your hands keep your head upright. After few meters walk you can change your position and walk by same process.

5.7.3. Major Games:

Kabaddi

History:-Kabaddi is a contact sport that originated in Ancient India. Kabaddi is the national game of India. Kabaddi also encompasses similar sports known by their regional names, such as hadudu in Bangladesh, baibalaa in Maldives, chedugudu in Andhra Pradesh, sadugudu in Tamil Nadu and hututu in Maharashtra. Kabaddi received international exposure during the 1936 Berlin Olympics, demonstrated by 'Hanuman VyamPrasaraMondal', Amaravati, India. The game was introduced in the Indian National Games at Calcutta in 1938. In 1950 the All India Kabaddi Federation (AIKF) came into existence and framed the rules by the Presidentship of S. Gourbel of Mumbai. The AIKF was reconstituted as The Amateur Kabaddi Federation of India (AKFI) in 1973 and the first national tournament for men was held in Chennai. Kabaddi was introduced to and popularized in West Bengal and formed the association in 1951.



Measurement of the field and general rules of Kabaddi:

- a. Ground: According age and sex they are two types.
 - i. Men (Below 80 Kg Weight) and Junior Boys (Age 20 years & below 65 Kg weight) - 13 X 10 Meters.
 - ii. Women (Below 70 kg weight), Sub-Junior Boys and Girls (Age 16 years & below 50 Kg weight) 11 X 8 Meters.

The strips on both the sides of the playfield measuring one meter in width are known as the Lobbies.. The lobbies are included in the playfield. The line that divides the play field into two halves is known as the mid-line. Each of the lines in court parallel to the midline is known as baulk line. The distance of the baulk line from the mid line shall be 3.75 meter in case of Men and Junior Boys and 3 meter in case of Women, Junior Girls, Sub-Junior Boys and Girls. Bonus Line The line parallel to Baulk line towards end line is known as Bonus line. The distance between Bonus line and Baulk line shall be 1 meter.

- b. Each team shall consist of minimum 10 and maximum 12 Players. 7 Players shall take the ground at a time and the remaining players are substitutes.
- c. The duration of the time of the match shall be two halves of 20 minutes in case of Men & Junior Boys with 5 Minutes interval (20+5+20=45 min.). In the case of Women, Junior Girls, Sub-Junior Boys & Girls two halves of 15 Minutes with 5 minutes interval (15+5+15=35 min.). The teams will change court after interval.
- d. Each team shall score one point for every opponent out or put out. The side, which scores a LONA, shall score two extra points. The out and revival rule will be applicable.
- e. Each Team shall be allowed to take Two "Time Outs" of 30 Seconds each in each half; such time out shall be called for by the Captain, Coach or any playing member of the team with the permission of referee.
- f. The officials shall be One Referee, Two Umpires, One Scorer and Two Assistant Scorers.

- g. The number of players for each team at the start of second half shall remain the same as it was at the end of first half.
- h. When the anti or antis come into contact with the raider, it is called struggle. After touch or struggle the play field includes the lobbies.
- i. The repeated, without break; at a stretch and clear aloud sounding of the approved word “KABADDI” within the course of one respiration shall be called ‘Cant’.

Volley ball

On February 9, 1895, in Holyoke, Massachusetts (USA), William G. Morgan, a YMCA physical education director, created a new game called Mintonette as a pastime to be played (preferably) indoors and by any number of players. The game took some of its characteristics from tennis and handball. Another indoor sport, basketball, was catching on in the area, having been invented just ten miles (sixteen kilometers) away in the city of Springfield, Massachusetts, only four years before. Mintonette was designed to be an indoor sport, less rough than basketball, for older members of the YMCA, while still requiring a bit of athletic effort.



General rules and dimensions of the game:

- a. A volleyball court is 18 m (59 ft) long and 9 m (29.5 ft) wide, divided into 9 m × 9 m halves by a one-meter (40-inch) wide net. The top of the net is 2.43 m (8 ft 0 in) above the center of the court for men’s competition, and 2.24 m (7 ft 4 in) for women’s competition. A line 3 m (9.84 ft) from and parallel to the net is considered the “attack line”. This “3 meter” (or “10-foot”) line divides the court into “back row” and “front row” areas (also back court and front court). The net is 1 meter wide and 9.50 to 10 meters long. The net is made of 10 centimeter square black mesh. The top horizontal band is 7 centimeters wide, made of two-fold white canvas. At the bottom of the net is another horizontal band, 5 centimeters wide. White bands 5 centimeters wide and 1 meter long are fastened vertically to the net and placed directly above each side line. An antenna is fastened at the outer edge of each side band, on opposite sides of the net. The top 80 centimeters of each antenna extends above the net and is marked with 10-centimeter stripes of contrasting color. The side band and antenna are considered as part of the net. The posts supporting the net are placed 0.50 to 1.00 meters outside the side lines and are 2.55 meters high.
- b. The ball must be spherical, made of a flexible leather or synthetic leather case with a rubber bladder inside. It may be a light color or a combination of colors. According to FIVB rules, it must weigh 260 to 280 grams with a circumference must be 65 to 67 centimeters. It’s inside pressure shall be 0.30 to 0.325 kg/cm.
- c. International rules limit rosters to 12 players, wearing the numbers 1 to 20. The defensive specialist, the Libero, wears a different color and cannot be designated as captain. Each team starts six players.
- d. A set (except the deciding, fifth set) is won by the team which first scores 25 points with a minimum lead of two points, The deciding set is played to 15 points, winning by at least two points. Each team is entitled to a maximum of 2 timeouts (30 Seconds) per set.

- e. Each team is allowed to have maximum of three touches before hitting the ball over the net. (EXCEPTION: block does not count as a touch). Same player can not hit the ball twice in a row (EXCEPTION I: block doesn't count a touch).
- f. Back row players can not attack the ball front row. If they attack, they have to perform the jump behind the attack line (10 feet line, 3 meter line).
- g. Contact with the net is only a fault if contact is made during the action of playing the ball or if it interferes with play. It's permitted for a player to step under the net into the opponent's court provided that some part of the penetrating hand or foot is in contact with or is directly above the center line.
- h. In volleyball, officials also ensure points are earned properly and awarded when deserved. Volleyball game includes the (two) referees, the scorekeeper, assistant scorekeeper, or libero tracker, and the (four) line judges.

Foot ball

History:-Football is the most popular games in the world.

There is no clear documentation stating the date and place of origination of today's most popular sport - world football.

However, most historians agree that some type of a ball game has been played for at least over 3000 years. The origins of the game can be seen in games played in China, Japan, Egypt, Greece before our modern game developed in England. The first official Football Association formed in England in the year 1833. Establishment of Federation International de



Football Association (FIFA) by delegates from France, Belgium, Denmark, the Netherlands, Spain, Sweden and Switzerland at a meeting in Paris on the 21st of May in the year 1904. This organization holds the World Cup competition since 1930. In India Englishman started this game is played according to their rules. In the year 1872 first Indian football club 'Dalhousie Club' was founded at Kolkata. In the year 1893 Indian Football Association (IFA) formed.

General rules and dimensions of Football ground:

- a. The field of play must be rectangular and marked with lines. These lines belong to the areas of which they are boundaries. Length: minimum 100 m (110 yds) maximum 110 m (120 yds) Width: minimum 64 m (70 yds) maximum 75 m (80 yds). The two longer boundary lines are called touch lines. The two shorter lines are called goal lines. The field of play is divided into two halves by a halfway line, which joins the midpoints of the two touch lines. The centre mark is indicated at the midpoint of the halfway line. A circle with a radius of 9.15 m (10 yds) is marked around it (Center circle). All lines must be of the same width, which must be not more than 12 cm (5 ins). Two lines are drawn at right angles to the goal line, 16.5 m (18 yds) from the inside of each goalpost. These lines extend into the field of play for a distance of 16.5 m (18 yds) and are joined by a line drawn parallel with the goal line. The area bounded by these lines and the goal line is the penalty area. Within each penalty area, a penalty mark is made 11 m (12 yds) from the midpoint between the goalposts and equidistant to them. A goal consists of two upright posts equidistant from the corner flagposts and joined at the top by a horizontal

crossbar. The distance between the posts is 7.32 m (8 yds) and the distance from the lower edge of the crossbar to the ground is 2.44 m (8 ft).

- b. The ball is spherical made of leather or other suitable material of a circumference of not more than 70 cm (28 ins) and not less than 68 cm (27 ins) not more than 450 g (16 oz) and not less than 410 g (14 oz) in weight at the start of the match of a pressure equal to 0.6 – 1.1 atmosphere (600 – 1,100 g/cm²) at sea level (8.5 lbs/sq in – 15.6 lbs/sq in).
- c. A match is played by two teams, each consisting of not more than eleven players, one of whom is the goalkeeper and substitutes may be nominated, from three up to a maximum of twelve. Up to a maximum of three substitutes may be used in any match.
- d. A game is officiated by a referee; the referee is assisted by two assistant referees. In the games there is also a fourth official who assists the referee and may replace another official should the need arise.
- e. The decisions of the referee regarding facts connected with play, including whether or not a goal is scored and the result of the match, are final. There are two types of free kick, Direct and Indirect.
- f. The referee may punish a player's or substitute's misconduct by a caution (yellow card).
- g. The referee may punish a player's or substitute's serious misconduct dismissal (red card). A second yellow card at the same game leads to a red card, and therefore to a dismissal. A player given a yellow card is said to have been "booked", the referee writing the player's name in his official notebook.
- h. A player is in an offside position if he is nearer to his opponents' goal line than both the ball and the second-last opponent.

Kho-Kho

Kho-Kho ranks as one of the most popular traditional sports in India. The origin of Kho-Kho is difficult to trace, but many historians believe that its origins in Maharashtra, Kho-Kho in ancient times, was played on 'raths' or chariots, and was known as Ratha. The rules of the game were framed in the beginning of the 20th century. At Gymkhana Poona, a Committee was formed in 1914, to frame its rules. The first ever rules on Kho-Kho were published from Gymkhana Baroda, in 1924. In 1959-60, the first national Kho-Kho championship was organised in Vijayawada (Andhra Pradesh). In the year 1933 the rules of the game prepared and 1956 formed Kho-kho Federation of India (KKFI).



General rules and dimensions of Kho-kho ground:

- a. A khokho playground (or pitch) is rectangular. [4] It is 29 metres in length and 16 metres in width. There are two rectangles at the end. Length of the rectangle is 16 metres and the width is 2.75 metres. In the middle of these two rectangles, there are two wooden poles. The central lane is 23.5 metres long and 30 cm width. There are eight cross lanes which lie across central lane, length of the cross lanes, are 16 metres and width 30 cm. It makes the small rectangles and each of it is 16 metres in length and 2.3 metres in breadth, (the two rectangles of near by the wooden poles are 2.5 metres width) at right angles to the central lane and divided equally into two parts of 7.85 metres each by

central lane. At the end of central lane, the free zone tangent to the post-line, two smooth wooden posts are fixed, 120 cm height from the ground and their circumference is not less than 30 cm and not more than 40 cm.

- b. Each team consists of 12 players, but only 9 players take the field. One team takes the position of Chaser and another Runner.
- c. A match consists of two innings with each innings consisting of chasing and running turns for the junior and senior $9+5+9$ (interval 9min.) $9+5+9=55$ minutes each and for the Sub Junior $7+3+7$ (interval 6min.) $7+3+7=40$ minutes.
- d. The following officials shall be appointed for the management of a match A Referee, Two Umpires, a Timekeeper and One Scorer.
- e. The runners take to the field from their 9 players, 3 at a time and the team that takes the shortest time to tag/tap all the opponents in the field, wins.
- f. An attacker's foot should have in touch with the Cross Lane, with the other portion of his body going beyond that Cross Lane.
- g. There is a pole on each end and the runner can go between two players who are sitting in zigzag manner, but the chaser is not allowed to turn back while running and go between the players. But chaser can go to pole and touch it and can go back or go to other side.
- h. Every valid out awarded by one point for Chaser team, if within the term all the Runner declared out then Chaser team will get another two points as 'Lona'.

5.7.4. Jumping and Throwing Events:

Shot Put

Parry O'Brien Method:

The origin of the glide dates to 1951, when Parry O'Brien from the United States invented a technique that involved the putter facing backwards, rotating 180 degrees across the circle, and then tossing the shot. The key is to move quickly across the circle with as little air under the feet as possible, hence the name 'glide'. There are six sequences in this method.



Holding the Shot: The shot is held at the base of the fingers not the palm. The fingers are slightly spread apart with the thumb for support. The hand will be bent back in the cocked position when holding the shot. Neck placement Raise the shot above your head. Lower the shot straight down until it is under your jaw. Push the shot into your neck. Lift your elbow parallel to the floor. Don't squeeze your elbow towards your back. The palm should be pointing towards the throwing direction.

Starting Position: The thrower stands with the right foot in the central, line of direction close to the rear edge of the circle. The left foot is placed about 20 to 30 cm. back and 10cm. laterally on the left of the heel of the right foot. Thrower raises the left arm upward. In primary movement the upper body is bent to the horizontal and shot reaches its lowest position. The left foot is lifted slightly and drawn until the left knee is besides the right knee.

The Glide: The glide is initiated by active extension of the left leg and hips towards the stop board and at the same time powerful drive from the right leg. The shifting of left leg and hips must be well coordinated with the right leg drive. Both legs are in extended position and angle of 90° between the right thigh and the trunk. This action shifts the center of gravity towards the throwing direction. As the right foot drops to the ground it is turned to the desired direction and the thrower sinks to create flexion of the left leg.

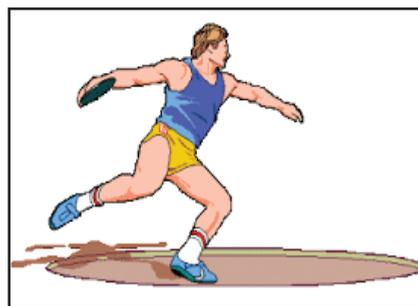
Power position: Power position is reached after the extension and turning movement of the right leg as the left foot lands at the front edge of the circle. The shot is then clearly behind the right leg. Body weight is over the ball of the bent right leg.

The delivery: The delivery begins with an inward turning of the right knee and leg, while the left leg strongly braces against the stop board. This lifts the thrower into putting action. During this action whole left side should be blocked to support the right side. Depending on the length of the power position this delivery may take place with the left leg in contact with the ground as a single supported delivery.

The Recovery: The recovery follows the throw with a reverse of the feet. The forward movement of the body is absorbed by the right leg, the left leg is shifted backward and the upper body is lowered to prevent the athlete stepping over the stop board.

Discus Throw

Holding the Discus: The discus thrower should be placed flat against the palm of the hand with the edge held by the first joint of each finger. The fingers are evenly spread to cover as much surface as possible and the thumb should be extended in a straight line with the forearm to secure full balance.



The Initial Position: The thrower should stand in the back of the circle facing the opposite direction to the line of the throw. He should stand with his toes pointing at right angles to the direction of the throw.

Preliminary swing: Holding the discus in the palm of the hand, palm down at the beginning of back swing. At the stretched arm swings backward, the hand is turned so that when it reaches the farthest point back, the edge of the discus are approximately perpendicular to the ground.

Body rotation: As the right arm swings back, the weight should be shifted to the slight bent right foot, with the left foot touching the ground lightly to assist in maintaining balance. The right leg should be thrust sharply in a counter clock-wise direction. The thrower should be turning the body sharply to the left, with the right arm fully extended. With the weight shifted to the left foot, a full turn should be made by turning on it.

Delivery: After the moment of rotation the thrower should go from pivot into the throwing action with a continuous and harmonious motion. The weight should shift from the right to left leg and the discus should be released from about shoulder height at angle of 28 to 32 degrees. While the body turns anti-clockwise, the discus is released off the index finger with a clock-wise spin.

Release: As the discus is released, the momentum of the body tends to carry the thrower forward, and since he must stay in the circle, the position of the feet is then quickly changed for gain the body balance.

The Recovery: After the release of the discus the body weight rests chiefly on the right leg and the head remains tilted backward so that the eyes are focused in the direction of the flight of the discus.

Long Jump

Apparatus:

1. 30m to 40m. long flat runway, width 1.22m.
2. Wooden take off board, length 1.22m., width 20cm. and 10 cm. depths.
3. Plasticine should be made by soft pudding or soap type smoothed removing material.
4. Length of the Landing area should be 7 to 10m. long and 2075m. width and filled by sand.
5. Measuring tape.



Technique:

a. Approach Run

1. Naturally run-up having been established within a suitable distance from take-off board.
2. Approach run starts parallel or front-back toe method.
3. The body lean forward when accelerating and still maintains some lean even after reaching full speed.
4. Gradually gain speed when moving towards take-off board.
5. Control stride length and maintain rhythm right up to the take-off point.

b. Take off

1. Strike strong leg on the take-off board.
2. The impact of hitting the board from a fast run will cause the leg to flex slightly but as the hip past over the foot you should extend your hips as powerfully as you can to launch yourself into the air.
3. As you plant the takeoff foot, throw your opposite arm back and lift your chin and hips as you push off the board.
4. Your arms and free leg move upward. Your center of gravity, which was behind your lead foot on the penultimate step, moves ahead of your lead foot on takeoff.
5. The takeoff angle should be between 18 and 25 degrees. Keep focusing directly ahead; don't look down at the pit.

c. Flight

1. To maintain forward momentum without letting your upper body rotates forward and throws you off balance.
2. The stride technique is just what it sounds like – basically an extended stride.

3. Your takeoff leg stays back, with your non-takeoff leg pointed forward (sky-walk) and your arms high.
4. As you come down your takeoff leg moves forward to join the other leg, while your arms rotate forward, down and back.

d. Landing

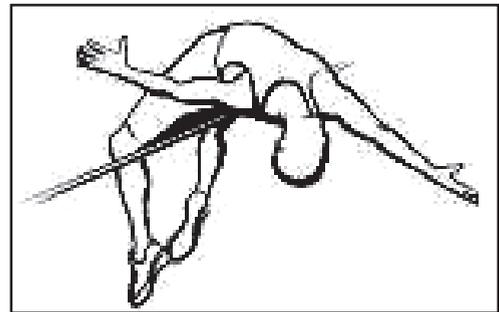
1. Your feet stretched as far in front of you as possible – without any other part of your body touching the pit behind the original mark.
2. When your heels touch the pit, press your feet down and pull your hips up.
3. This action, combined with the momentum from your takeoff, must carry your body past the mark where your heels touched down.
4. When you fold your knee and roll your hip forward you must keep hands beside your body.
5. Head and upper part of your body should be taking forward at the time of landing.

High Jump

Fosbury flop:

Apparatus:

1. Foam landing mat
2. Two High jump post and a cross bar
3. 20 to 30 meter plane land



Technique for Fosbury flop:

a. Approach Run

1. Approach run starts from reverse side of take-off foot and cross bar.
2. There are two parts of Approach Run–
 - i. Straight line - 5 to 6 meters (6-7 steps) straight run for acceleration.
 - ii. Curve – Last 4-5 meters (5-6 steps) along an arc that curves toward the bar.
3. Start slowly, and then accelerate throughout the approach. Your takeoff foot lands in front of the non-takeoff foot to continue the arc. At the same time, lean away from the bar by flexing at the ankles.
4. Continue to lean away from the bar. Keep your head up, body erect and focus your vision above the bar, toward the far standard.

b. Take off

1. Plant the takeoff foot (which will be farthest from the bar) in front of you, with the toe pointing toward the far standard, and drive your other leg and both arms straight up (not across your body), while keeping them close to your body.

2. The thigh on the non-takeoff leg should be roughly parallel to the ground while your arms punch up to head level.
3. Look down on the bar with your chin tight to your chest. Leave the free leg up as the takeoff leg rises into a similar position.
4. It's important to remember that the takeoff is a vertical jump. Maintain your lean away from the bar and jump up, allowing your momentum to carry you over the bar.

c. Clearance the Cross Bar

1. The head, obviously, will clear the bar first. As your shoulders clear the bar, tip your head back, move your hands to your thighs and arch your body to allow the hips to pass over the bar.
2. The takeoff leg should continue toward the bar as your other leg, shoulders and hips rotate until your back is to the bar. Your heels should be close to your backside with your knees apart.
3. Once your hips have cleared the bar, move your head forward, tucking your chin toward your chest, and kick your legs up – in effect, straightening them – as they pass above the bar.

d. Landing

1. Once you clear the bar, spread your arms and then your legs - to slow your momentum.
2. Then you ride down until you land on your upper back.
3. Keep your head upright.
4. Keeping arms and legs as close to the center of gravity as possible is the only way to increase the speed of rotation once the jumper has left the ground.

5.7.5. Indigenous Games:

1. Golla Choot

This game will play within an open ground, each team have eight to ten players. A little hole is the main center of this game. An indicator at the far end from the hole will be the end point of the game (brick, tree, post etc.). This game will played between two teams, any member hole adjoining team isreaching from hole to the indicator is the main aim of this game. Toss winning team will cover the pit;team leader must touch the pit by his one heel and other team members catch hands of one other including pit covering member. At the start of the game pit covering members can move clockwise or anticlockwise direction and they can stretch maximum with catching their hands.

Opponent players will take a suitable position to catch them. Pit covering team members try to move fast one by one towards the indicator avoiding opponent players.

If any player of the pit covering team is arrest by the opponent then opponent will win the game otherwise any member of pit covering team reach safely to the indicator then they will win the game. When the game starts moving pit covering team can touch any opponent player by catching their hands. At the ends of the game opponent act as pit covering team. Within due period maximum point earning team will declared winner.

2. Bulbul Hastak

Aim of the game:Practice to develop reaction ability and identify the ability or disability of the physical movement.

Procedure: Every player will take sit on the ground/floor and keep their fingers open spread at the floor. One member count Hati, Ghora, Bagh, Singha, Bulbul, Hastak by touching fingers /hands, final touching ward Hastak is the safe for the player. Finally one player wouldnot be success for safe through countingand he will act as the defender of the game. The defender will touch his finger with palm facing downward to the groundand the attacker will sit face to face of the defender and ready to give slap on palm of the defender. Defender put his palm between the centers of the attacker’s hand; attacker put his hands on the floor at a distance of 16-18 inches. Attacker can use his both hands to slap and recite ‘Tale tale di tali, sujigpabiki hat sarabi?’

When the attacker tries to slap, then the defender try to take away his palm very quickly. If the attacker gets success to slap consecutive four times then the defender will perform any cultural action and if he miss to flap then defender get chance to attack.

3. **Tiger aunt into the cage – cannot catch (Khanchermodhyabaghermasi – Dhorteparenna).**

Among the players one should act as a Tiger (Bagh) and others act as Doll (Putul). Tiger will move within a circle. When the team leader calls ‘ChotoputulBaroPutul’ then the dolls bend their knees and stand up on toe and they also laugh, swing their hands and head and shout – ‘Khanchermodhyabaghermasi – Dhorteparenna’. Tiger will growls and chase the dolls within the circle and shout ‘Aetorachupkor, amiekhanghumocchi, chitkarkorlemojadekhiadebo’. Dolls will run away from tigers reach. At the third time shouted by the doll then the tiger will growls and say – ‘Amar ekhonkhabarsomoyholo, dhar to re’ and quickly comes out from the circle and catch any one of the doll and make him ‘BagherMasi.’

4. **Dariabandha**

Aims : Development of speed, reaction time

Method of the game: There are two teams named ‘Runner’ and ‘Defender’ consist of eight players each. A rectangular play field is needed for the game with a boundary line and it is divided by two parts marking lengthwise and another seven across lane (equally divided) is drawn for the defending line for the ‘Defenders’. The entire ‘Runners’ should be assembling at the end room of a corner, and the associated end room named by ‘salt room’. At the start of the game the runners should try to change the room across lengthwise covering by every room and to arrive at the salt room. Defenders try to touch any one runner on their defending line. If they can get success then all the players of runner team declared out and then two teams inter change their position and play again.

5. **Ikri-mikri**

Aims of this game: Attention, Practice of Concentration, gentle nature game, fingers exercise.

Procedure:

Ikri-mikri-cham-chikir

Chamerkantamajumder

Dheyaelodamodar.

Damodarerharikuri
Duarebosechaulkanri
Chaulkanrteholobela
bhatkhai se dupurbela.
Bhateporlomachi
Kodaldiyechanchi.
Kodalholobhonta
Khanksealermatha.

It is a social nature oriented game. Players will make a circle and seat down on the ground and their left hand should keep prone position with spread their fingers. One of the players recites this poem and count from extreme right finger. At the end of the poem last touching finger will be fold, through continuous counting one player's finger will not fold at last and he will declare winner.

5.8 Importance of Sleep and Rest

Sleep and rest plays a vital role in good health and well-being throughout your life. Getting enough quality sleep at the right times can help protect your mental health, physical health, quality of life, and safety.

During sleep, your body is working to support healthy brain function and maintain your physical health. In children and teens, sleep also helps support growth and development. Adequate sleep and proper rest is a key part of a healthy lifestyle, and can benefit your heart, weight, mind, and more. So we need sufficient rest and at least 6-8 hours sound sleep for better health.

Rules of sleep and rest

- a. Ensure that areas for sleep and rest are well ventilated and have natural lighting.
- b. Set a regular bedtime. Go to bed at the same time every night. Choose a time when you normally feel tired, so that you don't toss and turn.
- c. Stay away from big meals at night. Try to make dinnertime earlier in the evening, and avoid heavy, rich foods within two hours of bed.
- d. There is particular dress is needed for sleeping time which is comfortable for body.
- e. Mosquito net must fit during sleep, because fly, mosquito and insects cannot disturb your sleep.
- f. Use comfortable sleeping pillow for avoiding neck ache and other related pains.
- g. Avoid late-night sleeping due to watching TV or study.

5.9 Posture

Introduction

Posture is the way you position your body or arrange your limbs. So stand up straight, put your shoulders back, and lift that chin up. It is the position in which you hold your body upright against gravity while

standing, sitting or lying down. Good posture involves training your body to stand, walk, sit and lie in positions where the least strain is placed on supporting muscles and ligaments during movement or weight-bearing activities. Postural deformities are depends on structural problem, problem by birth or acquired, accident, malnutrition, bad postural habits etc.

Remedial Measures for Postural Deformities

Walking, sitting, standing, running etc. are the natural movements of the students. If they cannot maintain it properly then the natural postural deformities may set into the body. Other external factors are also responsible for the bad posture, students must aware about maintaining good posture.

a. Flat foot: Due to inner bulge of the ankle and the inner curve of the foot is more pronounced than normal. The sole of the rare part of the foot is tipped out ward and there is loss of the normal alignment of the heel, the fore foot swings outwards.

Pre-caution: 1. Control obesity, 2. Children should not allow long walk, 3. Footwear should be proper and fit well, and 4. Children should not carry heavy weight.

Cause: 1. Bulky figure, 2. Use of improper footwear, 3. Weak muscles of foot, 4. Rapid increase in body weight, 5. Standing work for long period, 6. Carrying of heavy weights

Corrections:

1. Walk on heel.
2. Walking on sand.
3. Keep a towel on the floor and crape it slowly by leg fingers.
4. Collect glass ball by foot fingers from floor and put it into a dish.
5. Practice Vajrashana daily.

b. Knock knee: Knock knees are angular deformities at the knee, in which the head of the deformity points inward. It occurs because weight falls to the outside of knee joint.

Pre-caution: 1. Before learning normal walk don't forcefully walk themselves, 2. Intake proper balance diet.

Cause: 1. Excessive weight carrying at childhood, 2. Flat foot, 3. Bulky figure, 4. Suffering long term chronic disease, 5. Mal-nutrition, specially vitamin D, Calcium and Phosphorus. 6. Rickets.

Corrections:

1. At lying condition fold your both knee and lift both toe touching each other.
2. Keep a pillow between both knee and walk.
3. Regular practice Padmasana and Gomukhasana.
4. Walk on outside toe.
5. Massage cod-liver oil, it may helpful.

c. Bow leg:

Bow legs are a deformity in the legs, mostly from the knees to the ankles. The affected bone curves in or out and forms the usual “archers bow” which can also be called bow-legs.

Pre-caution: 1. Children’s are teaches walking at early age, 2. Carrying excessive load by children.

Cause: Deficiency of vitamin ‘D ’and Phosphorus, 2. Carrying excessive load, 3. Children’s are teaches walking at early age, 4. Bad habits of walking, 5. Negligence towards children.

Corrections:

1. Practice inward tow walk.
2. Take balance diet with vitamin D.

c. Kyphosis : Kyphosis is a curving of the spine that causes a bowing or rounding of the back, which leads to a hunchback or slouching posture.

Pre-caution: 1. Take precaution about deposition of fat into body, 2. Weight carrying is depends upon your carrying capacity, 3. Take balance diet regularly.

Cause: 1. Mal-nutrition, 2. Deficiency of fresh air, 3. Negligence of exercise, 4. Overweight carrying by shoulder, 5. Poor muscles and tendency to lean forward, 6. Various types of disease like tuberculosis, cerebral palsy, 7. Infection on vertebrae.

Corrections:

1. Practice Chakrasana, Halasana, Bhujangasana.
2. Stand erect, move and walk.
3. Table and chair should be correct size and height when you are reading.
4. Pillow should be set under your back when you sleep.
5. Try to fold your extended hand towards back.

5.10 Yoga Education

Yoga: Indian Tradition (Introduction):

The Art of Living Yoga is a holistic way of life that integrates all elements of ancient knowledge of Yoga, to make a prayerful discipline uniting the body, mind and soul. Yoga derived from the Sanskrit word yuj, Yoga means union of the individual consciousness or soul with the Universal Consciousness or Spirit. Yoga is a 6000 year old Indian body of knowledge. Though many think of yoga only as a physical exercise where people twist, turn, stretch, and breathe in the most complex ways, these are actually only the most superficial aspect of this profound science of unfolding the infinite potentials of the human mind and soul.

Astanga Yoga:

Ashtanga yoga literally means “eight-limbed yoga,” as outlined by the sage Patanjali in the Yoga Sutras. According to Patanjali, the path of internal purification for revealing the Universal Self consists of the

following eight spiritual practices:- 1. Yama,2.Niyama,3.Asana,4.Pranayama, 5.Pratyahara, 6. Dharana7.Dhyana8.Samadhi.

1. Yama (Social Discipline): Yama is the Principles or moral code.

- i. Ahimsa - A principle of non-violence
- ii. Satya - A principle of Truthfulness
- iii. Asteya - A principle of non stealing
- iv. Brahmacharya - Continence / Celibacy
- v. Aparigraha - A principle of non-hoarding or non possessiveness

2. Niyama (Individual Discipline):Five Personal Disciplines

- i. Shoucha– Purity
- ii. Santosh– Contentment
- iii. Tapa – Endurance
- iv. Swadhyaya - Self study
- v. EshwarPranidhan– Dedication

3. Asana (Posture): The third step is Asana. Asana means holding body in a particular posture to bring stability to the body and poise to the mind. The practice of Asana brings firmness to the body and vitality to the body and the mind. There are three types of Asana. Like-

- i. Cultural posture - Halasana, Bhujangasana, Salvasana, Chakrasana etc.
- ii. Meditate posture – Padmasana, Siddhasana, Birasana, Sukhasana etc.
- iii. Relaxing posture – Sabasana and Makarasana.

Yoga is to make a prayerful discipline uniting the body, mind and soul. Along with the series of simple, yet effective yoga postures and breathing techniques, a greater emphasis is placed on the inner experience of meditation.

4. Pranayama (Breath Control): “Pranayama is control of Breath”. “Prana” is Breath or vital energy in the body. On subtle levels prana represents the pranic energy responsible for life or life force, and “ayama” means control. So Pranayama is “Control of Breath”. One can control the rhythms of ‘Pranic’ energy with pranayama and achieve healthy body and mind. The breathing process chiefly involves two activities, viz., inhaling and exhaling. Of these the former is called “Puraka” and the latter “Rechaka” in Yogashastra. These two activities continue non-stop right from the birth to the death of a person. The state when these two activities are made to halt is given the name “Kumbhaka” in Yoga Studies. The halt after inhaling, i.e., Puraka and after exhaling, i.e. rechaka. The ratio of Puraka :Kumbhaka : Rechaka =1:4:2 so breath out continues 10 seconds. Some common Pranayamas are Ujjayi, Anuloma–Viloma, Sitkari, Shitali, Bhramari Pranayama etc.

5. **Pratyahara (Discipline of senses) :** Pratyahara is abstraction. It is the withdrawal of the Indriyas from the objects. The mind becomes more calm now. The nature of the Indriyas is to have always connection with the objects. Where the vision is turned outward (Bahirmukha Vritti), the rush of fleeting events engages the mind. The outgoing energies of the mind begin to play. When they are obstructed by the practice of Pratyahara, the other course for them is to mix with the mind and to be absorbed in the mind.
6. **Dharana (Concentration):** It means focusing the pure mind on one's personal deity or on the individual self. The practice of Dharana helps the mind to concentrate on a particular object.
7. **Dhyana (Meditation):** When one sustains and maintains the focus of attention through Dharana unbound by time and space, then it becomes dhyana or meditation.
8. **Samadhi (Self relaxation):** In this one's identity becomes both externally and internally immersed in meditation. Supreme happiness, free from pleasure, pain or misery, is experienced. Samadhi is the climax of Dhyana.

Types of Yoga

According to Indian culture mainly yoga is seven types. Like-

1. Karmayoga, 2. Jnyanyoga, 3. Hathayoga, 4. Rajyoga, 5. Mantrayoga, 6. Layayoga, and 7. Bhaktiyoga.
 1. **Karma yoga (The yoga of Action):** Karma Yoga is the Yoga of Action. It is the path chosen primarily by those of an outgoing nature. It purifies the heart by teaching you to act selflessly, without thought of gain or reward. By detaching yourself from the fruits of your actions and offering them up to God, you learn to sublimate the ego. To achieve this, it is helpful to keep your mind focused by repeating a mantra while engaged in any activity.
 2. **Jnana Yoga – (The Yoga of Knowledge or Wisdom):** Jnana Yoga This is the most difficult path, requiring tremendous strength of will and intellect. Taking the philosophy of Vedanta the Jnana Yogi uses his mind to inquire into its own nature. We perceive the space inside and outside a glass as different, just as we see ourselves as separate from God. Jnana Yoga leads the devotee to experience his unity with God directly by breaking the glass, dissolving the veils of ignorance. Before practicing Jnana Yoga, the aspirant needs to have integrated the lessons of the other yogic paths - for without selflessness and love of God, strength of body and mind, the search for self-realization can become mere idle speculation.
 3. **Hatha Yoga:** Hatha yoga is not exercise. Understanding the mechanics of the body, creating a certain atmosphere, and then using body postures to drive your energy in specific directions is what hatha yoga or yogasanas are about. "Asana" means a "posture." That kind of posture which allows you to reach your higher nature is a yogasana. This practice stimulates growth on all levels in youth : physical, mental, spiritual. It requires a youthful and healthy body. The main objectives are to improve concentration, flexibility and energy flow through the nadis.
 4. **Raja Yoga – (The Science of Physical and Mental Control):** Raja Yoga Often called the "royal road" it offers a comprehensive method for controlling the waves of thought by turning our mental and physical energy into spiritual energy. Raja Yoga is also called Ahtanga Yoga

referring to the eight limbs leading to absolute mental control. The chief practice of Raja Yoga is meditation. It also includes all other methods which helps one to control body, energy, senses and mind. The Hatha-Yogi uses Relaxation and other practices such as Yamas, Niyamas, Mudras, Bandhas etc..to gain control of the physical body and the subtle life force called Prana. When body and energy are under control meditation comes naturally.

5. **Mantrayoga:** The word mantra comes from the Sanskrit, “mantrana”, meaning suggestion. Mantras are sacred, potent words, which yield tremendous results in the physical, mental and spiritual levels, when chanted with concentration and devotion.

Mantra yoga is an exact science where the mantras are signposts to the wandering mind, steering it to an ambient poise for meditation. Repetition of mantras completely engages the mind, offering a means of getting closer to the divinity within. Chanting of mantras produces positive vibrations, bringing benefits to the one who chants as well as the one who listens.

6. **Laya yoga:**Laya yoga is an ancient form of meditation, with concentration on energy centers or chakras. Sage Gorakshnatha, an ancient sage of Nepal, and a disciple of Matsyendranath is the founder of Laya yoga. There are five main energy centers in the spine and two in the head. Laya yoga attempts to locate these energy centers and channelize them through meditation.
7. **Bhakti Yoga – (The Path of Devotion or Divine Love):** Bhakti Yoga This path appeals particularly to those of an emotional nature. The Bhakti Yogi is motivated chiefly by the power of love and sees God as the embodiment of love. Through prayer, worship and ritual he surrenders himself to God, channelling and transmuting his emotions into unconditional love or devotion. Chanting or singing the praises of God form a substantial part of Bhakti Yoga.

Benefits of Yoga for Children’s Health:

Weight loss, a strong and flexible body, glowing beautiful skin, peaceful mind, good health – whatever you may be looking for, yoga has it on offer. However, very often, yoga is only partially understood as being limited to asanas (yoga poses). As such, its benefits are only perceived to be at the body level and we fail to realize the immense benefits yoga offers in uniting the body, mind and breath. When you are in harmony, the journey through life is calmer, happier and more fulfilling.

Improvement of good Posture:It will help you improve good posture: A bad posture is partly due to bad habits and weak muscles. Yoga helps stretch and tone muscles all over the body, making them stronger which in turn gives you better posture. It also helps to reliefs from different types of postural defects (Kyphosis, Scoliosis, Lordosis,Bowlegs etc.).

Physiological effects: Develop the working capacities of heart and lungs. As a result of that the transportation of blood should be normal and also develops digestive system.

Physiological advantages:

1. Remove sleeplessness.
2. Protect infection of disease.

3. Control body weight.
4. Better Posture
5. Develop Endurance.
6. Increasing Flexibility.
7. Decrease Respiratory rate.
8. Develop the working capacity of endocrine system
9. Decrease Heart rate.
10. Keep excretory system normal.
11. Less Pain
12. Develop the capacity of Digestive system.
13. Control Blood Pressure.
14. Develop hand-eye coordination and joints, ligaments moves maximum range.
15. Develop performance.
16. Develops the function of Heart and Lungs.
17. Develop Nervous system as a result terminates nervous and mental weakness.
18. Makes coordination to muscles, vein, artery, tendon, glands and internal organs, as a result mental influence is very easy to reflect upon physical working ability.
19. Yogasana plays a vital role for mental patient. We can cure the mental patients through regular practice of the meditative asanas (Padma, Virasana), Pranayamay (Ujjayi, Anulom, Vilom) and Relaxation Asanas (Sabrasana, Makarasan).

Effects on Mind: Yoga makes the mind strong and able to endure pain and unhappiness. The power of determination and concentration are developed. It helps to develop concentration, meditation, confidence, mind control, consciousness etc.

Yogasana for Children

1. Talasana:

“Tal” refers to ‘palm tree’ in Sanskrit. In this pose the upper part of the body is extended straight up like a palm tree.

Sequence:

- i. Stand erect with your legs shoulder-width apart. The toes should be pointing outwards. Inhale deeply and raise your hands above the head and Keep the palms facing each other.
- ii. Raise your heels from the ground. Standing on your toes, exhale slowly.
- iii. Keeping yourself well-balanced on the toes, stretch your arms further up as you inhale. Try raising your heels and stretching your body to the optimum level.

- iv. Bend your neck and head backwards and look up. Stay in this position till you feel uncomfortable.
- v. Exhale slowly and return to starting position by lowering the arms and simultaneously lowering the heels.
- vi. Bring the neck and head forward and Relax.

Duration: Count 10-30 slowly and repeat it two to three times.

Limitations: Who are suffering ankle pain or foot pain they can't practice it.

Benefits:

- i. This yoga pose straightens the spinal column and thus any abnormal curvature can be rectified.
- ii. Regular practice of Talasana not only strengthens your body but also makes it supple and flexible.
- iii. This yoga posture strengthens the muscles of the neck, lower back, abdomen and pelvis.

2. Ardhakurmasana

Sequence:

- i. Sit down on a yoga mat in the Vajra Asana with your buttocks resting on your heels.
- ii. Inhale and lift both your arms to the sky. Bring the palms of your hands together and intertwine your two thumbs together. Your arms should be straight with your biceps touching your ears. Straighten your back and feel the stretch.
- iii. Exhale and slowly pivot down from your waist until your little fingers and forehead touch the yoga mat.
- iv. Hold this pose for at least 20 seconds while you continue to breathe normally.
- v. Inhale and come back to the starting position with your hands straight up in the sky above your head.
- vi. Exhale, release your arms, and come back to the Vajra Asana.

Duration: Count 10-30 slowly and repeat it two to three times.

Limitations: Who are suffering spinal problem, high power of eyes is advice to do this exercise by permission of a yoga expert.

Benefits:

- i. It increases blood flow to the brain, which enhances memory and mental clarity.
- ii. It is helpful for Asthma, Stomach problems like Constipation, Dysentery, and Indigestion etc.
- iii. This posture also stretches the lower part of the lungs, which is therapeutic for asthma, and counter indigestion, flatulence, constipation and irritable bowel syndrome.

3. Ardhasalabhasana

ArdhaSalabhasana is also known as the half locust pose. This posture strengthens the muscles of the lower abdomen.

Sequence:

- i. Lie on your stomach with your chin on the floor and your palms under the your thighs
- ii. Inhale and raise one leg as high as possible
- iii. Hold the position for 10-30 seconds
- iv. Exhale and slowly bring the leg down
- v. Repeat with the other leg.

Duration: Count 10-30 slowly and repeat it two to three times.

Limitations: Who are suffering spinal problem they are not allow to practice this Yogasana.

Benefits:

- i. Strengthens the arms, shoulders, muscles of the back, especially the lower back and abdominal muscles
- ii. Stimulates the autonomic nervous system
- iii. Stimulates appetite and the digestive process, balances the functioning of the liver and other abdominal organs, and alleviates stomach disorders.

4. Padahastasana

Sequence: To begin, come to a standing position at the front end of your mat with your legs close together.

Method - 1

- i. Inhale and lift your arms straight up over your head with your arms touching your ears.
- ii. Exhale and bend forward from the hips as shown in the photograph, keeping your back straight as long as possible. Keep your legs straight with the weight of the body over the balls of the feet. Feel that the hips are lifting up and the body is falling away from the hips.
- iii. If possible, put your hands flat on the floor, or wrap your fingers around the big toes. If you can't reach the floor you can also wrap your hands around the back of your legs.
- iv. Try to bring the head in as close to the knees as possible with the neck relaxed.

Method – 2

- i. Standing with your feet together, exhale and bend forward at the hips, keeping your arms extended throughout the movement, finishing with your upper torso and arms hanging straight downward.
- ii. Inhale slowly, draw the head and neck forward (look up) and lengthen the spine.
- iii. Exhale again and relax the head, neck and spine downwards, fixing your fingers and palms firmly under your toes and the balls of your feet into the complete padahastasana.

Duration:In the beginning, hold the posture for 5 seconds, gradually working up to 1 minute or more.

Benefits: The benefits of padahastasana are numerous. In this posture, there is great emphasis on the flow of blood to the head without the difficulties presented in other postures which also do so such as the headstand. Some key benefits are:

- i. The toning of the abdominal organs.
- ii. Conditions of bloating of the abdomen, constipation, indigestion and other gastric troubles can be greatly alleviated.
- iii. Helps to relieve sciatica.
- iv. The spine is made resilient, straight and flexible.
- v. Circulation of the blood throughout the body is improved.

5. ArdhaChandrasana

Method

- i. Stand straight keeping both your feet together and arms alongside the body.
- ii. Breathing in, extend your arms overhead. The palms should face each other while you do this.
- iii. With slow exhalation, pushing your pelvis forward gently and bend backwards. The elbows and knees should be kept straight and the head up, lifting your chest towards the ceiling.
- iv. Hold the posture for some time.

Benefits:

- i. It stimulates the abdominal organs and aids digestion.
- ii. It works very well for people with lower back pain and spondylitis.
- iii. It increases lung capacity and also provides relief from respiratory diseases. It regulates blood pressure and improves your heart function.

6. Utkatasana

Sequence:

- i. Stand erect with your feet slightly apart.
- ii. Stretch your hands to the front with palms facing downwards. Do not bend your elbows.
- iii. Bend the knees and gently push your pelvis down as if you are sitting in an imaginary chair.
- iv. Ensure that you keep your hands parallel to the ground, sit straight and lengthen your spine.

Relax.

Benefits:

- i. Tones the leg muscles excellently.
- ii. Strengthens hip flexors, ankles, calves, and back.
- iii. Stretches chest and shoulders.
- iv. Reduces symptoms of flat feet.
- v. Stimulates the heart, diaphragm, and abdominal organs.

7. Mandukasana

Sequence:

- i. Sit in Vajrasana with both the legs bent in the rear.
- ii. Keep both the paws of the legs touching each other. Keep both the heels opened out. Sit with waist and back straight supporting the buttocks on the two heels.
- iii. Now separate the knees as far apart as possible. This is Manduk sitting.
- iv. Now for Mandukasana bring both the knees in the front touching each other.
- v. Close both the fists of the hands and keep them on the belly on both the sides of the navel.
- vi. Lower the body in front and let the forehead touch the ground.

Benefits:

- i. Mandukasana improves functions of all organs. It is advised in the treatment of constipation, diabetes and digestive disorders.
- ii. This asana is effective in reducing the weight of thighs, hips and the abdomen.
- iii. This asana strengthens the spine.
- iv. This asana stimulates the digestive system.

Check your progress

- a. Write the name of three minor games.

Ans.

- b. What is the measurement of a Volleyball ground?

Ans.

- c. What do you mean about 'Yama'?

Ans.

5.11 Let us sum up

Summary: You have learn from this unit:

- Various games through imitation
- Play as you will
- Tumbling

- Volleyball, Kabaddi, Football, Kho-kho, Indigenous games
- Jumping, Throwing
- Need of rest and sleep, Postural deformities and remedy
- Definition of Yoga, history, Practice of Yoga, Astanga Yoga
- Relation of Yoga and good health

5.12 Unit –End Exercise

1. Write within 25 words:

- a. For imitation games what measures you should keep in your mind?
- b. Write down the history of Football.
- c. What do you mean by Yoga?

2. Write within 250 words:

- a. Discuss the role of Yoga for children’s health.
- b. Explain about the method of Discus throw (Parry O’Brien Method).

3. Fill in the blanks –

- a. How many officials officiate in Kabaddi?
- b. Write down three exercise for flat foot disease.
- c. What is the importance of sleep and rest?
- d. What do you mean by postural deformities?
- e. What are the conducts of ‘Niyama’?
- f. What the asans for concentration?
- g. Write down few names of Indigenous games.
- h. What are the procedures of Forward Roll?

5.13 Answer check your progress

- a. Walk like Elephant, flying like birds, pluck mango from tree
- b. 18 meter long and 9 meter width
- c. Yama is social discipline, which organized by five habits

WEST BENGAL BOARD OF PRIMARY EDUCATION ASSIGNMENT
SUB: Art, Health, Work Education & Physical Education
TWO YEAR D.EL.ED. COURSE (ODL) FOR PARA AND RESIDUAL TEACHERS
SESSION: 2015-17

FULL MARKS: 30

There are five sets (1,2,3,4,5) of questions. You will be given any one set of assignment which you will solve and submit within the stipulated time. The answers must be hand written. No photocopy or computer generated copy of the answer would be accepted. Each set has three parts (a),(b) and (c). The first two parts,i.e. (a), and (b) in each set are to be answered within 250 words each and the maximum marks for each such answer: 07. The third part, i.e.(c) in each set is to be answered within 500 words and the full marks of such answer: 16. All the three parts in each set are compulsory.

Set-1

- a) Write the objectives of teaching Music at Primary Level. 7
- b) What is the reason for inclusion of Art Education at Elementary level? 7
- c) Discuss in detail the characteristics of four important types of dances in India. 4×4=16

Set-2

- a) What is the reason for inclusion of Art Education at Elementary level? Discuss briefly. 7
- b) Write the importance of collage work in Primary education. 7
- c) Discuss in detail the role of dance in the physical development of the students of upper primary classes. 16

Set-3

- a) What is origami? Give its characteristics. With an example show how you would use origami in any geometry lesson at primary level. 2+3+2
- b) What is clay modeling? Discuss the technique of clay modeling with an example. 3+4
- c) Discuss the techniques of calligraphy for English and Bengali letters. 8+8

Set-4

- a) Discuss :The importance of hygiene in the prevention of diseases. 7
- b) What is meant by SUPW? Write on the preparation of any one SUPW. 7
- c) What is folk song? Discuss in detail the regional folk songs. 16

Set-5

- a) What are recreation games? Give two examples of them. 7
- b) Discuss the strategy of teaching the scope of Work Education. 7
- c) What is puppet? Discuss the uses of puppet in Primary Education. 16