

GOVERNMENT OF KARNATAKA

## PHYSICAL EDUCATION Text Book



## EIGHTH STANDARD

## 2015

KARNATAKA TEXTBOOK SOCIETY (R)
100 Feet Ring Road, Banashankari 3rd Stage,
Bengaluru - 85

## PREFACE

"If education were identical with information, the libraries would be the greatest sages in the world and encyclopedias would be the rishis. We need life building, man making and character forming education Our country needs men with nerves of steel, muscles of iron and gigantic will which nothing can resist, which can penetrate into the mysteries and secrets of the universe and will accomplish their purpose in any fashion even if it meant going down to the depths of the ocean, meeting death face to face." _ Swamy Vivekananda.

Swamy Vivekananda's concept of education could be realized only when the system of education provides opportunities for the learner to train his/ her body on healthy lines, acquire useful knowledge and competence to translate this knowledge into producing useful goods and services and a strong spirit with the power of Dhi.

The first aspect of education is taken care of physical education, health education and yoga. All the three form part of the curriculum recently revised, based on the principles of NCF 2005 and KCF 2007. Physical education has been a part of the curriculum from class I to X. It is made formal from class VI.

Accordingly textbook committees have been formed with representation from universities, colleges and schools. The syllabus for each class includes physical exercises, sports, games and yoga. The textbooks provide practical suggestions to the learners about various physical activities, sports and games. "Learning by doing" has been the guiding principle in each of the activities provided.

It is for the first time that Physical Education has been made an examination subject and CCE is extended to this subject. Procedures of evaluation both summative and formative have been evolved. Teachers are going to be trained in these aspects.

The Textbook Society expresses grateful thanks to the Chairpersons, Members, Scrutinizers, Artists and the members of the State Editorial Board for helping the Textbook Society in producing these books. The Society also thanks the printers for bringing out the books in a very attractive form.

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## Prelude by Chairman...]

Physical education is an integral part of education. It has been made a compulsory teaching subject in primary and secondary schools of Karnataka. Necessary curriculum, syllabus, text books, evaluation materials etc have been successfully designed from time to time.

Physical education is a multi dimensional subject taught in theory as well as practical units. Eighth standard physical education text book has been written within the NCF-2005 and KCF-2007 guidelines. The experience and expertise of members forming text book writing committee formed the basis for this book. The practical unit of this book includes skills of major games and athletics, light apparatus exercises, yoga, drill and marching etc. Similarly theory part contains history, measurements and rules of major games; rules and records pertaining to athletics; guidelines for yoga practice; and topics relating to mental health and emotions, first aid, National flag and anthem.

Collecting information necessary for instruction and providing it in the form of a text book is considered a major and significant task. This text book has been structured within the framework of syllabus, considering eighth standard students and available hours for teaching. It is the outcome of hard work by the members of text book writing committee. Efforts have to be made in future to improve the quality of this book and any healthy discussion in this direction shall be considered fruitful.

Sincere gratitude is due to all the members of text book writing committee for successful completion of this book. Bountiful thanks to the Director and other administrative staff of Karnataka Text Book Society for providing this opportunity. Heartfelt thankfulness is rendered to all those who have directly and indirectly contributed in completing this venture.

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## PART - 1 : PRACTICAL

## MAJOR GAMBS

## Chapter - 1

## VOLLEYBALL

Following skills are learnt in this game.

- Under hand pass Upper hand pass Under hand service

Note: Explanation provided for skill execution in practical section hold good for dominant right handers. Dominant left handers should make necessary adjustments while executing skills.

Volleyball is an internationally acclaimed game. It is popular in rural as well as urban areas. We have already learnt many aspects of the game. Let us now learn some other skills of the game.

## I Under hand pass:

This is a simple skill used to receive a serve and send it towards setter and to defend a smash. This is also called by the name forearm pass and dig pass.

## 1) Stance:

There are two types of stances:
Diagonal and Parallel
> The stance should be comfortable. It should help in speedy movement (forward, backward, lateral)
> Distance between feet should be slightly


Figure 1.1 Under hand pass more than the shoulder width.
$>$ Toes should be pointed slightly inwards.
$>$ Body weight should be distributed on both toes.
> Trunk as well as knees should be slightly flexed.
> Shoulders should be inclined and brought slightly ahead of knees.
> Hands and shoulders should be relaxed and palms should be facing each other.
$>$ If one feet is placed ahead of the other, it is called diagonal stance.
2) Grips :

There are three types of grips :
Fingers interlock grip :
In order to hold this grip, all the fingers of both hands should be inter-woven and palms held together. Fingers should be inter-locked and both thumbs should be held straight in the middle.
Hand over lap grip :


Figure 1.2
Fingers interlock grip


Figure 1.3
Hand over lap grip

## Fist grip :

This grip is held by holding the right fist within the left palm. Both thumb fingers should be parallel and touching each other. The left handed player does the opposite movements.


Figure 1.4 : Fist grip

## 3) Execution of pass :

This skill has to be executed rhythmically with the help of forearm. Both elbows should be held straight.

## 4) Contact :

The ball should contact the fore arm above the wrist.

## 5) Follow through :

The body should move towards the direction of the ball after playing the ball.

## II Upper hand pass or over head pass:

This skill is used differently at different situations of the game

## 1) Stance :

$>$ Both toes of the player should be pointing towards the direction of play.
> Knees and hip should be slightly bent and back held straight.
> Shoulders should be parallel to the direction of play.
$>$ Eye sight should be on the ball and head held high.
> During this, if the feet is placed forward and backward the stance is refereed as


Figure 1.5 Upper hand pass diagonal.

## 2) Execution :

As the body moves towards the ball, hands move forward and upward starting froma point near to the eyes. All the fingers form tip to base come in contact with the ball. The ball is thus towards the target.

## 3) Follow through:

Both hands are lifted up and fingers are pointed towards the target following the execution.

## III Under hand service :

This is the most simple and accurate service amoung others.


Figure 1.6 : Under hand service

## 1) Stance:

Maintain diagonal stance. The ball should be held in front of the waist. Knees and trunk should be slightly flexed. Back remains straight and body weight should

## Think:

Whose role do you think is most important -setter's or other player's? be distributed evenly on both legs.

## 2) Execution :

The ball should be tossed to a considerable height. Transfering body weight on rear leg. Right hand should be made straight at elbows and extended backward. Entire body weight should be shifted forward along with the swing of right hand. The performer should bend forward slightly and contact the ball at the bottom as well as behind it.

## 3) Follow through :

After hitting the ball, right hand should be brought forward as well as upward. Both knees become straight and in order to retain balance the rear leg should be brought forward.

## Project :

Students should plan for a lead up activity, which includes all skills that are explained above with the direction of teacher.

## Chapter -2

## HOCKEY

```
Following skills are learnt in this game.
```

- Holding the stick and stance
- Straight push.
- Straight stop
- Indian dribbling and open dribbling
- Reverse push
- Parallel pass

Hockey has been identified as the most popular sport during pre and post independent era. Let us now learn some of the basic skills of this game.

## I. Holding the stick and stance :

The flat part (playing part) of the stick should be held forward. Left hand should be holding the end of the stick and right hand should be holding the mid part. There should be 15 to 20 cms distance in between. This is the orthodox way of holding the stick.

While playing hockey, different skill require different stances. Hence, the description of stance is given during the explanation of each skill.

There are two methods is holding the stick

## 1) Open grip:

The end of the stick is firmly held in this grip. 15 to 20 cms apart from this, the stick is held with right hand in a loose manner. Left hand makes the stick to turn and it is controlled by right hand. This grip is helpful is dribbling, pushing and flicking the ball.


Figure 2 .1: Open Grip

## 2) Closed grip :

The end of the hockey stick is firmly held with the left hand. About 10 cms from this, the stick should be held with right hand. This grip is useful during hits and stopping the ball.

## II. Indian dribbling and open dribbling :

## 1) Grip :



Figure 2.2 : Closed grip

Left hand should hold the end of the stick and right hand should hold the part of the stick which is slightly higher than the mid part (as shown in figure).

This skill is utilized by Indian hockey players most of the times. The stick seems to be attached with the ball during performance of this skill. They used this skill to deceive the opponents and advance with the ball. Hence this skill was named as Indian dribbling.

In open dribbling, the ball remains in contact with the flat surface of the stick continuously. Here the stick is held in front to the body. The body is bent slightly forward as well as at the right side. Toes should be pointing the direction of play.


Figure 2.3 : Grip

## III Straight push :

This skill involves pushing the ball straight ahead.

## 1) Grip :

Stick is held in open grip manner.

## 2) Position :

Body should be bent forward. Right handed players, should stand with the left shoulder pointing the target. Left leg should be ahead of right leg and on its toes.

## 3) Position of ball :

Ball should be kept 9-12 inches ahead of the left leg.


Figure 2.4 : Straight push

## 4) Execution :

After attaining a suitable position as discussed, the ball is brought in contact with the stick and pushed firmly with the right hand. The left hand makes the withdrawing movement of the stick.

## 5) Follow through :

After the ball is pushed, the stick continues to move in the direction of the push (pushing and pulling process).

## IV Reverse Push :

## 1) Grip :

The grip is similar to that of dribbling. The performer is expected to maintain open grip.

## 2) Body position :

Body should be bent forward. Right shoulder of the right handed player should be pointing the direction of push. Right leg should be forward and left leg on its toes.


Figure 2.5 : Reverse push

## 3) Position of ball :

The ball is placed 9 to 12 inches ahead of right leg.

## 4) Execution :

Before attempting for a reverse push, the sticks should be rotated anti clockwise. The ball is then pushed towards the target.

## 5) Follow though :

After the ball is pushed with the stick, it continues to swing in the same direction.

## V Straight stop :

## 1) Grip :

Grip is similar to dribble. Maintain open grip.

## 2) Body position :

Feet should be shoulder width apart and body should be facing the ball. Knees and trunk should be slightly flexed and eye sight on the ball.

## 3) Execution :

The stick has to be brought in line with the ball that is travelling towards player and stopped in front of the body (as shown in figure)


Figure 2.6 : Straight Stop

## VI Parallepass :

Sending the ball to team mate is called a pass. A parallel pass is one among the techniques of passing. In this, a player ' $A$ ' passes the ball from his right to the left towards player ' B '. Player ' B ' in turn receives the ball and sends to players ' A ' who is at his left.


Figure 2.7 : Parallel Pass

Project:
With the direction of teacher students should form groups and plan for lead up activity releated to the skills plantroned above.

## Chapter - 3

## HANDBALL

```
Following skills are learnt in this game.
* Basic stance of offensive
    player.
- Catching the ball
- Shot (shooting)
* Basic stance of goalkeeper.
- Stopping the high shots.
```

Handball is one among the sports introduced to India from Western countries. This is a game played with minimum equipments and in limited area. This sport involves numerous skills. Some among them shall be learnt now.

## I Basic stance of offensive and defensive player :

## 1) Basic stance of offensive player :

The offensive player maintains diagonal stance with body weight evenly distributed on both legs and knees slightly bent. Body is bent slightly forward and head held up to watch the movements of opponents' goal and the ball. Hands should be relaxed and always in anticipation.

## 2) Basic stance of defensive players :

Feet wider than the shoulder width and knees slightly flexed. Body is bent slightly forward and head held up to watch the movements of opponents and the ball. In this position, both hands should be lifted up so as to move as per requirement.


Figure 3.1
Stance of defensive player

## II Catching the ball :

Catching the ball is one of the important skills in handball. Ball has to be caught with one or two hand as per the situation.

## 1) Catching the ball at chest level :

Extend arms towards the ball in either diagonal or parallel stance. Elbows slightly bent and fingers spread as much as possible. Holding the ball as it enters the hands.

## 2) Follow through :

Bring the ball close to the chest by bending both elbows.


Figure 3.2 : Ball holding at chest level

## 3) Catching the high ball :

This is similar to catching the ball at chest level. But, here arms have to be extended above the head towards the direction of the ball. The performer may need to jump when the ball is not available in a normal stance.

## III Passing :

Accurate passes are essential to maintain the speed and continuity of the game. Such passes put pressure on opponent and create opportunity to score a goal.

## 1. Over arm pass :

Hold the ball firmly in the throwing hand. In diagonal stance, body weight should be on rear leg and left shoulder pointed towards target throwing arm should be bent up to 90 degree at elbow and lifted up as well as backward. Body weight has to be shifted from rear to front leg while passing. At this time the body has to be turned towards the direction of the pass. The ball has to be passed by swinging the arm with the help of elbow.


Figure 3.3 : Over arm pass

## 2. Under arm pass :

The ball in the throwing hand has to be lowered and taken back without bending at elbows. Diagonal stance is considered convenient here. Body weight has to be shifted from rear to lead leg and simultaneously with the swing of throwing hand ball has to be passed according to the distance. After the ball is passed, fingers keep pointing the target. Rear leg has to brought forward in order to retain balance.

## 3. Chest pass :

The ball has to be held with both hands near the chest. The ball has to be thrown to the target by shifting body weight from near leg to lead leg. After the release of the ball the fingers should be
pointing the target. Near leg should be brought one step forward in order to retain balance. This skill can also be performed by one hand. It is called flick pass or push pass.


Figure 3.4 : Chest pass

## IV Shot (shooting)

Scoring points through shooting is the main objective in the game of handball. Among different types of shooting straight shot and hip shot are explained as under.

## 1) Straight shot :

$>$ Ball has to be held in both hands and stating form left leg three steps have to be taken.
$\rightarrow$ The ball has to be lifted up with right hand during the placement of third step.
> Right forearm should be perpendicular to the ground and the left shoulder should be pointing the target.
$\rightarrow$ The ball has to be released by turning the body through the tip of middle finger of right hand.
> The right hand has to be brought across the chest at the end and landing should be done safely on both legs.


Figure 3.5 : Stright Shot

## 2) Hip shot :

> Ball should be held with both hands and stating form left leg three steps have to be taken.
> Third step with left leg should be placed towards the left side of the defender.
> Body weight should be transferred towards right side while shifting it form rear leg to lead leg.
> During the shooting process, the body has to be bent towards right side and ball released form left side of the defender.
$>$ Right leg has to be bent and place towards the side.

## V Passing the ball while dribbling :

While playing handball, situation may demand to pass the ball when moving with the ball. At this time the person dribbling the ball should observe the receiver. Instead of stopping with the ball, the person possessing the ball should pass the ball appropriately.

## VI Basic stance and skills of the goal keeper :

> Goal keeper should stand straight with feet shoulder width apart and knees slightly flexed.
> Body weight placed evenly on both legs.
> Both hands lifted up to shoulder height, as in figure. Position of hands should be adjusted according to the convenience, his will and the shot coming towards him.
>. In order to move laterally, he should take a convenient position by taking one step forward from the middle of the goal line and creating an imaginary curve between the two goal posts.
> He should observe the movements of attacking side and give special attention to the attacking player as well as the ball.
> Goalkeeper should be always ready to change direction and safeguard the nearest corner of the goal (with reference to the player attacking the ball).


Figure 3.6 : Basic stance and skill of the goal keeper

## VII Ball stopping skill :

> The goal keeper should stop his movements and maintain his basic position in a stable manner while the attacker is about to take a shot.
> Goal keeper should not initiate any movement prior to the release of ball from the hands of the player taking the shot. Starting the movement at an appropriate time and with concentration is crucial here.
> The goal keeper should rush towards the ball as soon as it is released.
> The nearest leg has to be placed in the direction of the ball and body weight has to be shifted.
$>$ According to the situation, the ball has to be stopped either with one or two hands and legs.
$>$ The ball should be stopped instead of catching. After stopping, the ball should be immediately taken into possession.

## VIII Stopping the high shots :

$>$ Goal keeper has to stand as straight as possible and keep one small step towards the direction of the ball.
$>$ Jump towards the ball with the help of the leg far away from the ball. At the same time an attempt has to be made to step the ball by extending hands (as shown in the figure ).


Figure 3.7 : Stopping the high shots

## Project:

With the direction of teacher students should form groups and plan for lead up activity releated to the skills plantroned above.

## Chapter - 4 <br> BASKETBALL

```
Following skills are learnt in this game.
```

- Stance
- Dribbling
* Receiving the ball
- Pivoting
* Holding the ball
- Chest pass
- Step stop
- Shooting

Basketball can be played indoor as well as outdoor. It can be played by individuals of all age group and different physical abilities. Apart from providing recreation, this game improves physical fitness.

## I Stance and holding the ball :

Basketball players should maintain stable position. There are two types of stances - offensive and defensive.

## 1) Offensive stance :

Head should be held perpendicular to pelvis so that the basket and the board are clearly visible. Back should be straight and the hands held above the waist as depicted in figure. Both elbows should be bent and held close to the body. Feet shoulder width apart with diagonal stance. Body weight evenly distributed on both legs and need to be ready to move. Knees should be slightly flexed.


Figure 4.1: Offensive stance


Figure 4.2 : Defensive stance

Players in the basketball court should obey imaginary cylinder principle. According to this, a player should retain his position within an imaginary cylinder. As depicted in the figure below, the cylinder shall be limited up to palms at the front, buttocks at the back and outer edges of arms and legs laterally.


Figure 4.3 : Cylinder principle

## 3) Holding the ball :

Ball has to be held with both hands in front of the chest. At this moment, all the fingers should be spread apart and thumbs pointing each other. Ball should be securely held in between chest and abdomen.

## II Dribbling :

## 1) Stance:

Ball should be held at the side with both hands in diagonal stance for performing dribble. Knees should be slightly flexed and eye sight at the front.

## 2) Execution:

Push the ball towards ground by extending elbow. At this moment wrist and fingers get flexed. As the ball bounces back the dribbling hand should be in contact with the ball. During this, the ball should bounce up to a level between knees and the trunk. In order to


Figure 4.4 : Dribbling gain more control over the ball, the fingers should be spread as much as possible.

## Types of dribbling

## 1) Low dribble :

In this type of dribbling, the knees are bent slightly more than the normal (as shown in the figure). Ball should bounce only up to knee level and left hand should be extended for safeguarding the ball.


Figure 4.5 : Low dribble

## 2) High dribble (Speed Dribble) :

In this type of dribble, the ball has to bounce above the waist level but limited up to the shoulder height. Both legs should be near straight as shown in figure. This helps in moving with speed while dribbling the ball.


Figure 4.6 : High dribble

## III Giving and receiving chest pass :

## 1) Stance :

Hold the ball in front of the chest in diagonal stance. Fingers should be spread apart to the maximum extent and thumb fingers should be behind the ball. Both elbows should be close to the body and eye sight on target (as in figure).

## 2) Execution :

Body weight has to be shifted on front leg and simultaneously ball has to be released towards target by extending both arms.

## 3) Follow through :

Fingers should be pointing to the direction of pass and both palms face outward. In order to retain balance the rear leg has to be brought one step forward.


Figure 4.7 : Chest Pass

## 4) Receiving the ball :

Both hands have to be extended while receiving a chest pass. Ball has to be caught and brought near the chest. Fingers should be spread apart and eye sight should be on the ball.

## IV Step stop :

A player dribbling and moving may need to stop. He should hold the ball with a step on either of the legs. This foot is called the pivot foot. He then places another foot one step ahead. At this moment, both knees should be slightly flexed and body weight evenly distributed on both legs.

## V Pivoting :

When a player holds the ball, he should fix one of his feet without movement and move the other foot at any direction as many times as required. He should turn on the toe of the foot which is fixed.

## VI Shooting :

## Two hand set shot :

## 1) Stance :

Feet shoulder width apart and ball held with both hands in front of the chest. Knees slightly bent.

## 2) Execution :

Knees, hip, shoulders and elbows should extend sequentially in order to release the ball above the head. Eye sight should be on the ball. Both wrists and all the fingers bend forward while releasing the ball.

## 3) Follow through :

Both hands are extended and index fingers


Figure 4.8
Two hand set shot point the target. Both palms face downward and biceps come near to the ears.

## Project:

With the direction of teacher students should form groups and plan for lead up activity releated to the skills plantroned above.

## Chapter - 5

## BADMINTON

Following skills are learnt in this chapter.

- Footwork of players.
- Holding the racket
- Fore hand service
- Fore hand - under hand receive/return

Badminton is a popular game in our country. This is played both indoor and outdoor for recreation and improving physical fitness, the skills, involved in this game help in improving speed and coordination.

## I Foot work of players :

In majority of the situations (except backhand) where the player moves within the court, he starts his movement with the right as the lead leg. In order to receive shuttles at his right, he has to place his right leg one step towards that direction. Similarly, to receive shuttles at his left, he has to place his right leg one step towards left and start the movement.

## II Holding the racket :

Generally a player makes use of two grips in order to hold the racket. 1. Fore hand grip. 2. Back hand grip.

## 1) Fore hand grip :

In order to receive the shuttles at the right side (at the center, front and back of the court) and to serve form right side, a player uses forehand grip. In this, thumb and the index fingers form the shape of English alphabet 'V'.


Figure 5.1 : Fore hand grip

## 2) Back hand grip :

This grip is used to receive all the shuttles (at the center, front and back) coming at the left side of the player. The racket has to be brought immediately towards left to receive the shuttle. The player places more stress on his thumb finger in this method. This skill is usually performed with the help of the wrist.


Figure 5.2 Back hand grip


Figure 5.3
Fore hand service

## IV Fore hand - under hand receive or return :

The skill used to receive the shuttles at the right side of the player is called as fore hand receive or return. It is performed with a fore hand grip by reaching near the shuttle by means of short or long steps as required. Stretching legs and arms as per requirement, and watching the shuttle is most essential.

## Project :

With the direction of teacher students should form groups and plan for lead up activity releated to the skills plantroned above.

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## ATHLETICS

## Chapter - 6

## MIDDLE AND LONG DISTANCE RACES

Following skills are learnt in this athletics.

* Arm and leg movement.
- Semicrouch start and body position.
- Finish strategies.
- Strategies for middle and long distance race.

Athletic events include activities that improve physical and mental capabilities of the individual. Some of them are triple jump, Javelin throw high jump. In this chapter we shall discuss middle and long distances components. they should know how to utilise their energy appropriately. One should rum the race rhythmically. Arm and leg movements should be adjusted properly as per the stage of the competition. He should sustain mental and physical tiredness encountered due to change in pace of the race.

## I Movements of hands and legs :

## 1) Movement of hands :

Movements of hands and legs are similar to sprinting events. They move forward and backward. In the final stage of a race as the running speed increases, the speed of movements of hands should also increase.

## 2) Movements of legs :

Legs move rhythmically with the opposite arm.

## II Semi crouch start and body position :

The runner places his strong leg toe on the command 'on your mark'. He stands with his knees slightly flexed and upper body bent slightly forward. As soon as there is signal for start of race, he should swiftly perform his arm action and place his first step with the rear foot.

## 3) Finish :

An ideal runner utilizes all his energy reserves during the finish of race. It is appropriate to bend slightly forward while finishing the race. Run through technique is most suitable here.

## 4) Strategies for middle and long distance races :

> Performing warm up exercises.
> Wearing appropriate sports costumes.
$>$ Running in the near edge is appropriate.
$>$ Wearing shoes appropriate to the track surface.
$>$ Running in the track.

It is dangerous for a middle and long distance runner to run with full speed at the beginning of the race. This is because he may find exhausted in the later part of the race. There are chances of clash and falling down during the beginning of race, where all the competitors start the race together. Therefore, the runners should avoid this by keeping distance between each other.


## Chapter - 7

## HIGH JUMP

Following skills are learnt in this athletics.

- Details of straddle technique. Take off


## Details of straddle technique :

Straddle technique in high hump is useful where the foam pit is unavailable.
I Approach run and take off : The jumper taking off on left leg marks his runway and jumps from the left side of the crossbar. Similarly, the one taking off with right leg jumps from the right side.
II Body position on cross bar : There are usually two positions which can be observed while clearing the cross bar.
> Parallel straddle
> Dive straddle
a. Parallel straddle: In this technique, the jumper clearing the crossbar keeps his body straight and parallel to the crossbar. While taking


Figure 7.1
Body Position above crossbar in straddle technique off, the body has to be propelled upward starting form head, right shoulder and right hand has to clear the cross bar together.
b. Dive straddle : In this technique, as depicted in figure, clearing the cross bar is initiated by head. Hip as well as knees are slightly flexed while clearing. Head and hip are not held parallel to the cross bar, rather they clear it obliquely.
III Landing : After clearing the cross bar and during landing into the soft pit or sand pit, the jumper has to place his right leg and right hand first. Eventfully he rolls on his shoulders and hip region.

## Chapter-8 <br> YOGA

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Following skills are learnt in this chapter.
- Standing asanas
- Sitting asanas
- Lying asanas
- Pranayam and dhyana
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Note: During asana practice, 'puraka' should be observed while extending chest region or bending backward; similarly 'rechaka' should be observed while flexing chest region or bending forward.

## STANDING ASANAS :

## I Parshwakonasana :

The meaning of 'Parshwa' is 'Lateral'. This asana requires complete lateral bending and it depicts a triangle in the final stage. Hence it is named as Parshwakonasana.

Initial Position: Samasthithi (In Thadasana)


Figure 8.1: Parshwakonasana

1. Jump to a minimum height with Puraka, extend arms to the sides and place your feet at sufficient distance as shown in the figure. Hands should be extended straight to the shoulder height and palms should be facing the ground.
2. Turn right toe $90^{\circ}$ towards right and keep hands extended sideward. Tighten the muscles of legs. Broaden the chest and turn the neck towards right.
3. Bend the right knee with Rechaka up to a position where the lower leg is perpendicular to the ground. The right thigh should be parallel to the ground. There should be right angle at the right knee.
4. Perform rechaka after performing puraka and extend the right hand forward. Place the right palm next to the right foot (towards right) on the ground. Stretch the left hand above the head and pull it. Press the left foot on the ground in order to control body weight.
5. Perform Puraka - rechaka sequentially and return to initial position. Practise the same form on left side as well.

## II Parivrata Thrikonasana:

Intial positon: Samasthithi Tadasana


Figure 8.2 : Parivrata Thrikonasana

1. Jump to a minimum height with Puraka, extend arms to the sides and place feet at sufficient distance as shown in figure. Palms should be facing downward.
2. Turn right toe upto $90^{\circ}$ and the neck towards right.
3. Turn hip and neck towards right side along with rechaka.
4. Perform rechaka after performing puraka and turn towards right in order to place left palm near the right feet on the ground. Right hand should be extended upward vertically and watch the fingers of the same hand.
5. Retain the final position for a while and return to the initial position sequentially. Practise the same form the left side as well.

## III Ardha Chakrasana :

Initial position: Samasthithi


Figure 8.3 : Ardha Chakrasana

1. Keep both palms on the hip.
2. Both thumbs should be pressing the back bone.
3. Extend the body part above the hip backward with puraka, do not bend knees.
4. Return to initial position with rechaka sequentially.

## IV Ushtrasana :

This asana is called Ushtrasana because the final stage of this asana resembles a camel.

Initial position: Sit straight with extended legs.


Figure 8.4 : Ushtrasana

1. Bend the right leg and place it below hips and then do the same thing with the left leg.
2. Stand on knees and keep both hands on hips.
3. Loosen hip and back with rechaka and place both palms on soles of feet. Bend entire body backwards. Return to initial position sequentially.

## SITTING ASANAS :

## I Ardha Matsyendrasana :

Initial Position : Extend legs forward and sit straight toes should be pointing forward.


Figure 8.5 : Ardha Matsyendrasana

1. Bend right leg and place it outside left knee (as shown in figure)
2. Bend left leg and keep the foot below right hip.
3. Loosen hip and encircle right knee with left hand. Take the right hand backward so that both hands join together around hip. Turn neck towards right side.
4. Retain this position with normal breathing and return back to initial position sequentially.

## II Gomukhasana :

This asana is called Gomukhasana because it resembles the face of a cow.

Initial Position: sit straight with extended legs.


Fiure 8.6 Gomukhasana

1. Bend the left leg lift it above right leg and place the foot near the right hip.
2. Bent the right leg and place the foot in contact with the left hip.
$>$ Outer edges of both feet should touch the ground.
$>$ Both knees should be on one another.
3. Bend the left elbow and bring behind back with fingers pointing upward.
4. Lift the right hand up, bend at the elbow and join fingers with the left hand fingers. The right elbow should be pointing towards the sky and the back should be straight.
5. Remain in the final position for a while and return to samasthithi sequentially. Perform this from the other side.

Note: Make use of rope or belt in the initial stage.

## III Paschimothanasana :

Initial position: Extend both legs forward in a straight sitting position.


Figure 8.7 : Paschimothanasana

1. Place both hands on the sides with shoulders parallel.
2. Extend both arms vertically above head with puraka
3. Keep the back straight, bend forward with rechaka. Hold both big toes with respective index fingers. Chest as well as face should be touching the knees and both elbows should be touching the ground.
4. Remain in the final position of the asana for a while and return with puraka to the initial position sequentially.

Note: Do not try to bend the body the force in the beginning.

## IV Ardhabaddha Paschimothanasana: :

Initial position: Extend legs forward and sit straight.


Figure 8.8 : Ardhabaddha Paschimothanasana

1. Bend the left leg and keep it over the right thigh. The left heel should be touching the umbilicus.
2. Bring the left hand from behind and hold the big toe of right leg.
3. The big toe of extended leg (right) should be held with left index finger. The body should be bent forward with rechaka. Face and chest should touch right knee.
4. Remain in the final position for a while and return to initial position sequentially. Perform the same asana by bending right leg.

ASANAS IN LYING POSITION :

## I Matsyasana :

The final position of this asana resembles a fish. Hence this asana is named 'Matsyasana'.

Initial Position: Extend both legs forward in a straight sitting position.


Figure 8.9 : Matsyasana

1. Sit in padmasana and place both hands at the sides on the ground.
2. Fall back in supire position with the support of hands.
3. Take both hands back, bend elbows and hold the ground near the face. Back should be lifted up and fore head should be touching the ground (as shown in figure).
4. Big toes of both legs should be held by hands. Elbows should be touching the ground.
5. Remain in the final position for a while and return sequentially.

Note: Falling back and coming up in padmasana should be slow. Lifting the back upward should be steadily done. Bending the neck should not be forceful.

## II Saravangasana :

This asana is called saravangasana because every part of the body gets involved in this.

Initial position: Lay down in Samathala Sthithi.


Figure 8.10 : Saravangasana

1. Lift legs vertically up with puraka.
2. Lift the trunk up and take legs backward.
3. Make the body stand on neck and shoulders.
4. Support the trunk with both hands and hold the body vertically up.
5. Remain in the final position for a while and return sequentially.

## III Rajakapotasana :

Initial position: Prone lying position.


Figure 8.11 : Rajakapotasana

1. Place hands beside the chest and lift the chest up.
2. Loosen the hip and bend backward to the maximum. Both hands should be on the ground.
3. Bend both legs and make the soles of the feet to touch the head. Back region should be stretched and hip muscles should be contracted.
4. Remain in the final position for a while and return sequentially.

Note: Back and neck region should be stretched slowly in the beginning.

## IV Dhanurasna :

'Dhanussu' refers to 'Bow'. Since the body bends like a bow in this asana, it is called Dhanurasna.

Initial position: Prone lying position.


Figure 8.12: Dhanurasna

1. Place both hands beside the chest.
2. Bend both legs and bring soles of the feet towards the back.
3. Hold both ankle joints tightly with hands.
4. Lift the neck, chest and legs upwards with puraka. There should be a little distance between legs, and face should be calm.
5. Remain in the final position for a while and return sequentially. PRANAYAMA :
I Anuloma Viloma :
Initial positon : Sit in any meditative asana Eg- Padmasana, Vajrasana etc.
6. Place hands on thighs with any of the mudras.
7. Perform deep inhalation and exhalation form both nostrils.

II Chandranuloma Uiloma:
Inhalation (Puraka) and exhalation (rechaka) is performed through left nostril only.

Initial Position: Sit in any meditative asana

1. Sit straight with Nasika mudra. Close the right nostril gently with thumb. Keep the left hand on thigh in a suitable manner.
2. Perform puraka and rechaka form left nostril rhythmically.

## III Suryanuloma Viloma:

Inhalation (puraka) and exhalation (rechaka) is performed through right nostril only.

Initial position: Sit in any meditative asana.

1. Close the left nostril gently with the ring finger or the little finger of the right hand.
2. Perform puraka and rechaka form the right nostril rhythmically.

## DYANA :

Dhyanaisoneofthedimensions of metaphysics. It is a process of regulating the mind, an attempt to control the thought process. It helps in removing weakness of mind and boosts internal strength. It enhances self confidence. It is essential to lead a life free of hatredness towards others; mind becomes free from external influence. It is required to develop internal bliss.


Figure 8.13 : Dhyana

## Initial practice :

Cleansing of the body should be done prior to dhyana. Sit on a mat in a clean and silent place. Perform any of the meditative asana. Hold back, neck and head straight in a relaxed position. Hold hands in any of the mudra as per convenience. Close eyes and focus attention in a spot between the two eyes. Concentrate the mind in a particular manner. Keep the mind free from any kind of thoughts, ideas, worries, experiences or memories. Breathe in a steady and comfortable manner. At the end, rub palms with each other and place them on eyes before opening them.

## Suguna Dhyana :

Plenty of thoughts and ideas start disturbing the mind of performer in the initial stage of dhyana. In order to overcome these disturbances it is better to focus on a particular thing, god or a light beam. One can also concentrate on a physical thing in order to practise dhyana.
(Morning and evening are appropriate for performing dhyana.)

## RHYTHMIC ACTIVITIES

## Chapter-9

## GHATI LAZIUM

Following skills are learnt in this chapter.

* Exercise : Ath taok Exercise : Tal se kadam
- Exercise : peeche pav
* Exercise : Age pav
- Exercise : pavithra
* Exercise : kudan baithak
* Exercise : pavithra pavithra

Details of basic commands :
Basic position : Hold the metal (short) stick of the lezium in right land and retain savdhan position.

Initial position : Hoshiyar
Join both the sticks of lezium at the right side by holding one side of the wooden (long) stick in the left hand and one side of the metal stick in the right hand. Metal stick should be below the wooden.

I EXERCISE : ATH THOK
Position : Hoshiyar
Count 1 : Swing the lezium form right to left and open the metal stick in front of the thigh.

Count 2: Lezium should be brought to the left side and Metal stick should be joined with the wooden.


Count 3: Swing the lezium from left to right and Open the metal stick in front of the thigh.


Count 4: Lezium should be brought to the rightside and join the metal stick.


Count 5: Lift the lezium above head and open the sticks with extended arms. Wooden stick should be at the back and metal at the front. Turn body towards left and keep lezium parallel to ground.


Count 6: Join the lezium at the left side.


Count 7: Swing the lezium and open in front of thigh.


Count 8: Join the lezium at the right side.

Note : Perform these exercises in 16 counts.

## II EXERCISE : THAL SE KADAM

Position : Lift right leg in hoshiyar position.
Knee Knee should be flexed and thigh parallel to the ground.


Count 1: Place the right leg on the ground, swing the lezium and open the meal stick in front of thigh.


Count 2: Lift left leg up, bring the lezium towards left and join metal stick to the wooden.

Count 3: Place left leg on the ground, swing the lezium from left to right and open the lezium in front of the thigh


Count 4: Left right leg up, bring the lezium towards right and join the metal stick


Count 5: Join right leg to the left, lift the lezium above head and open the sticks with extended arms. Wooden stick should be at the back and metal at the front. Turn body towards left and keep the lezium parallel to the ground.


Count 6: Lift left leg up, join the lezium at the left side.


Count 7: Place left leg on the ground, swing the lezium and open in front of thigh.


Count 8: Lift right leg up and join the lezium at the right side.

Note : Perform these exercises in16 counts.


## III EXERCISE : PEECHE PAV

Position : Lift right leg up in hoshiyar position and join the lezium on the right side.


Count 1: Place right leg one step backward, turn slightly towards right and open the lezium in front of thigh.

Count 2: Shift the body weight on right leg, lift the left leg up and join the lezium towards the left.


Count 3: Place the left leg on the ground and open the lezium in front of the thigh.


Count 4: Lift the right leg up and join the lezium the right side.


Count 5: Join the right leg to the left, lift the lezium above head and open the sticks with extended arms. Wooden stick should be at the back and metal at the front.

Count 6: Lift the left leg up and join the lezium a the left side.

Count 7: Place the left leg on the ground, swing the lezium and open in front of the thigh.

Count 8: Bring the lezium towards the right and lift the right leg up.

Note : Perform these exercises in 16 counts.


## IV EXERCISE : AGEY PAV

Position : Place both the legs in hoshiyar position and join the lezium at the right side.

Count 1: Without the movement of legs, swing the lezium from the right side and open the metal stick in front of the thigh.


Count 2: Without the movement of legs, bring lezium towards the left and join the metal stick with the wooden stick.


Count 3: Without the movement of legs, swing the lezium from left to right and open the metal stick in front of the thigh.


Count 4: Lift the right leg up and join the metal stick of the lezium to the wooden part at the right side.

Count 5: Place the right leg one step forward, turn the body slightly towards the left and open the lezium above the head by extending both arms stick should be at the back and metal stick at the front.


Count 6: Lift the left leg up and join the lezium at the left side.

Count 7: Place the left leg on the ground, swing the lezium and Open it in front of the thigh.


Count 8: Bring the lezium towards right side and lift right leg up.


Note : Perform these exercises in 16 counts.

V EXERCISE : PAVITHRA
Note : This exercise includes the following movements along with the movements of Ath thok exercise. This is the combination of peeche pav and agey pav.
Position: Lift right leg up in hoshiyar position and join the lezium at the right side.


Count 1: Place the right leg one step forward, turn slightly towards the right and open the lezium in front of the thigh.


Count 2: Shift body weight on the right leg, lift the left leg and join the lezium at the left side.


Count 3: Place the left leg in its intial position on the ground And open the lezium in front of the thigh.

Count 4: Lift the right leg up and join the lezium at the right side.

Count 5: Place the right leg one step forward, turn the body slightly towards the left and open the lezium above Lead by extending both arms. The wooden stick should be at the back and metal at the front.


Count 6: Lift the left leg up and join the lezium at the left side


Count 7: Place the left leg in its initial position on the ground and open the lezium in front of the thigh.


Count 8: Bring the lezium towards the right and lift the right

Note : Perform these exercises in 16 counts.

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VI EXERCISE : KUDAN PAVITHRA
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Position : Lift the right leg up in hoshiyar position and join the lezium in front of the thigh.


Count 1: Place the right leg one step backward, turn slightly towards the right and open the lezium in front of the thigh.


Count 2: Hop on the right leg, lift the left leg and join the lezium at the left side.

Count 3: Place the left leg in its initial position on the ground and open the lezium in front of the thigh

Count 4: Hop on the left leg, lift the right leg up as well as forward and join the lezium at the right side.


Count 5: Place the right leg one step forward andopen lezium above the head by extending both arms.


Count 6: Hop on the right leg, lift the left leg and join the lezium at the left side.


Count 7: Place the left leg in its initial position on the ground and open the lezium in front of right the thigh.


Count 8: Hop on the left leg, lift the right leg and join the lezium at the right side.


Note : Perform these exercises up to 16 counts.
VII EXERCISE : PAVITHRA BAITHAK

Position: Lift the right leg up in hoshiyar position and join the lezium at the right side.


Count 1: Place the right leg one step backward, turn slightly towards the right and open the lezium in front of the thigh.


Count 2: Hop on the right leg, lift the left leg and join the lezium on the left side.


Count 3: Place the left leg one step forward and open the lezium in front of the thigh.


Count 4: Hop on the left leg, lift the right leg up as well as front and join the lezium at the right side.


Count 5: Starting from the rightleg, place both legs one step forward and perform baithak. At the same time open the lezium above the head by extending both arms upward.


Count 6: Hop on the right leg, lift the left leg up and join the lezium at the left side.


Count 7: Place the left leg one step backward and open the lezium in front of the right thigh.

Count 8: Hop on the left leg, join the lezium at the right side and join the right leg to the left.


Note : Perform these exercises in 16 counts.

## Chapter - 10

## DRILL AND MARCHING

You learn following skills in this chapter :

- Line division
- Theen line me tej Chal
- Tej chal me tham


## Drill and Marching :

## I Theen line ban :

Command : "Lamba dahine Chota Baen, mere samne ek line ban".

The whole squad (turns right, count a pause) sort out themselves and form a single line in front of the teacher and stands tallest at the right and shortest at the left hand side of the teacher.

Note: Dahine saj order is given to make the single straight.
Command : "Class Dahine se Ek Do Ginthi Kar"
The student at right extreme, counts 'Ek' or 'One' and next to him counts 'Do' or two. Next one counts 'Ek' again and next to him counts 'Do', this process continues till the end.

Command : "Number 'Ek' Ek Khadam age, Number 'Do’ Ek khadam piche, Class Age Piche Chal".

On this Command, starting with their left leg, the students who counted number 'Ek' comes one step forward and number 'Do' goes one step backward. Now single line is divided into two students should say 'EK' while placing left leg and 'Do' while placing right leg.

Command : 'Number ek Dahine, Number Do Baen, class Dahine - baen mud'

On this command, students in the front line turn towards their right and those in the back line turn towards their left in a disciplined and rhythmic way.

Command : Dahina darshak khada rahega, baki teen line ban tez chal.

Except the Right Marker, all others make 3 ranks by quick March immediately after the command given by the teacher. In order to do this, the second student raises his right hand to take one arm distance from the right marker and the third student takes one arm distance from second student. Fourth student stands behind the 'Right marker' taking one arm distance from him and all others continue to do the same.

## II Theen line me Tej Chal :

This Command is given when the students are in three ranks and ready to march. By this command all should start marching from attention position.

Ek: The left leg placed forward along with a forward swing from the right arm. At the same time the left hand is taken back with a swing.

Do : The right leg is placed forward along with a forward swing from the left hand. Simultaneously the right hand is taken back with a swing.

The entire body should be rhythmical. Everybody should look front and make his/her respective lines straight and adjust to the files at the sides. Marching continues with equal distance steps fill the next command.

## III Tej chal me' Tham' :

While marching, 'class' command is given to left foot and 'Tham' command is to the right foot. Students say 'Ek' on left foot by digging and join the right foot to left foot by saying 'Do'. Thus, marching comes to a halt in attention position.


## Chapter - 11

## RECREATIONAL GAMES

Following skills are learnt in this chapter :

| Chariot Fight | Haranna Tooranna |
| :--- | :--- |
| Akasha Bhoomi Patala | Number formation |
| Entara ota | Crocodile Mouth |
| Wake up from sleep | Explore phrase |
| Ten number game | Shatayu |
| Cock Fight | Standing Kho |

## 1 Chariot fight :

Form a circle as per the strength of the students. Students form chariots by riding on the back of one another. As per the command of teacher, every couple tries to struggle with the other and try to bring down the person riding on the back. They may try to send the other chariots out of the circle as well. In this way the chariots going out of circle or the one's coming down from the back are out of the game. The only team remaining at the end of the game is considered winners.

## 2 Haranna tooranna :

Students are divided into two teams. Players of both teams stand one behind the other at a distance of 1.5 meters in two lines. First player of each team stands and second one sits, third stands and fourth sits. Similarly all other players of both teams follow the sequence. Players standing should spread their legs. Equipment each is placed in front of each line at a distance of 20 feet. At the command of the teacher, the last player of each team starts to advance towards the equipment by jumping over the sitting person and crawling under the legs of the standing person. After surpassing everyone, the players takes a round of the equipment placed in front of their respective lines and retains their original position. All other players continue the same sequence and retain their original positions. The team completing first is considered the winners.

## 3 Akasha bhoomi patala :

All the students stand in a circle. Teacher stands at a place visible to every student. Students point at the sky on the command 'Akasha' by the teacher, keep their hands on hips on the command 'Bhoomi', and at the command 'Patala' they bend forward and point the ground. Students have to perform as per the commands of the teacher rather than imitating his action. The student doing contrary movement goes out of the game. Every student should be watching the teacher compulsorily. Students learn the moral that they should not be deceived by the people who show the wrong path.

## 4 Number formation :

Two teams are formed and make stand by facing each other. Teacher assigns the numbers $0,1,2,3,4, \ldots .9$ to each student of both teams. Teacher puts parallel lines before each team. The teacher stands in the middle and announces a multi digit number. The students with specific numbers run towards the teacher and form that number in front of him. For example: if teacher announces 125, the students with number one, two and five should stand in a sequence. The team forming the number in a correct manner first is given one point, whereas the one making mistakes or forming late is not given any point. The team securing 10 points first is considered winner.

## 5 Figure of eight race :

Students are divided into two teams and make stand in a straight line by facing each other at a distance of 8 to 10 meters. A stick is placed in the hands of first player of each team. On the command of teacher, the first player of each team starts to move around the opponent team and then around his own team in the figure of eight pattern of and resumes his initial position. The second player collects the stick from the first one and continues to move in a similar manner. All other players continue the same pattern of movement. The team finishing first is considered winner.

## 6 Crocodile mouth :

Students are divided into two teams and make stand in a straight line by facing each other at a distance of 10 meters. They are named ' $M$ ' and ' $H$ '. The members of team ' $M$ ' stretch one hand
forward and the other upward and for the mouth of a crocodile. Every player should be assigned a number. On the call from teacher, the player with a specific number from 'H' team should go to the respective numbered player of ' M ' team and return after touching his hand. The ' $M$ ' team player should chase the player who has touched him. If ' M ' team player is unable to touch the 'H' team player, he should stand behind that player. In case if the ' $M$ ' team player touches successfully, the 'H' team player should stand behind ' M ' team player. The teacher continues the game by calling another number. The team scoring maximum points is considered winner.

## 7. Malagiddu elu (crawling and standing) :

Dividing the class into two teams and making them to stand one after the other behind a starting line. A target line is drawn at a distance of 20 meters ahead of two teams. Students stand by stretching their legs as far as possible. On the command of teacher, the students at the end of each line crawl under the legs of their respective teammates and touch the target line and take their initial position. He then handovers the baton carried by him to the second student of the same team. The second student repeats the same sequence and crawls under the first teammate and takes his initial position. All other students follow the sequence. The team finishing the relay first is deemed winners.

## 8 Detect the phrase :

Divide the students into two teams and make them stand at a considerable distance. Team 'A' is given the opportunity to yell a phrase of their choice collectively. For example: Our Nation is India, Go to School and Learn, Learn and Teach etc. Team ' $B$ ' is given an opportunity to detect the phrase. On successful identification of the phrase, team ' $B$ ' is awarded one point. The opportunity to yell is now given to team ' $B$ '. They should be provided an opportunity to decide their phrase secretly. Team 'A' should identify the phrase and score a point. The game continues till a team scores ten points first.

## 9 Shatayu :

All students stand in a circle. One among them tells a number within ten. The student next to him adds another number not more than ten to the first number. The third student continues this process. The play continues until the total is one hundred. The student who is supposed to tell hundred walks out of the game. For example: The person next to the one who has told 99 shall be out of the game. The game continues in a similar way. The person remaining at the end will be the winner.

## 10 Cock fight :

The students have to be divided into two teams. All of them spread out inside the circle. Every student within the group bends his left leg and holds it with left hand from behind. Right hand should hold the left upper arm. Each student either tries to disturb the position of the students of opponent team or tries to send them out of the circle. In the process, the students leaving their hands, falling off balance or going out of the circle are considered out. The team in which maximum numbers of players remain after the stipulated period is considered winner. The same game can be played without forming teams. In that case, the person remaining at the end is declared winner.

## 11 Standing kho :

All the students stand in a circle. One among them escapes (dodger) and the other becomes the chaser. The dodger stands in front of any of the players in the circle and gives kho by clapping. The person receiving kho has to escape. His place is occupied by the first dodger. In case if the chaser touches the dodger, the role gets exchanged (the dodger becomes chaser and the chaser becomes dodger).

## 12 Ten number game :

The students are divided into two groups. One of the groups stands around a circle and the other spreads inside the circle. The group around the circle is provided with a ball (either a volleyball or football) and instructed to aim the region below knee of the players within the circle. Total 10 attempts are provided and number of players getting out is recorded. The team securing maximum number of outs is considered victorious.


## Part-2 : THEORY

## Chapter - 1

## SIGNIFICANCE OF PHYSICAL

## EDUCATION

Academic aspects of school curriculum address mental growth. Regular and structured Physical Education is essential in every school to ensure optimum physical growth and fitness. Physical education is an integral part of the total education of every child at different levels from primary through higher education. Students learns the fundamentals of a healthful lifestyle by participating in different physical activities. This leads to development of healthy and knowledgeable adults in future.

The goal of physical education is to develop physically educated individuals who have the knowledge, skills and confidence to enjoy a lifetime of healthful physical activity. Healthy lifestyle habits, including healthy eating and physical activity can lower the risk of becoming obese and developing related diseases. Participating in physical education at school level helps in achieving allround development of children. Vivid movements and physical activities not only develop physical fitness but also help in mental growth. Children continuously developing physically, mentally and emotionally are affected by the following benefits of regular participation in systematic physical education.

1. Improves Physical Fitness: Participation in physical education is beneficial for improving endurance, muscular strength, flexibility. body composition.
2. Long term health benefits: Moderate physical activity is helpful in maintaining leaner bodies, reduced rates of obesity, decreases the incidences of high blood pressure, high cholesterol, diabetes and heart disease.
3. Helpful in mental development: Experiences derived from participation in physical education are beneficial for mental development. Sports, games and other activities help in avoiding anxiety, depression and other mental disorders. Physical education participation promotes feelings of well-being.
4. Promotes intellectual development: Participation in physical education helps in improving thinking power. Experiences and training obtained from physical education enhances concentration, betters academic performance and strengthens problem solving capabilities. All these help in improving learning readiness in other subjects. Self-expression and self confidence are filled in such individuals.
5. Improves social adjustment: Activities included in physical education helps students in socialization. Opportunities are created for group activities which demands cooperation. Development of good character is promoted through various circumstances in physical education programme.
6. Provides guidance for leading healthy, active and disciplined lifestyle: Healthy and active lifestyle observed during young age leads to its continuation throughout life. This helps in formation of healthy citizens. Sports, games and associated activities become part of life and forms basis for disciplined lifestyle.
7. Teaches sportsman spirit: Individuals accepting victory and defeat similarly in physical education setting continue the habit in real life situation as well. Experiences from sports and games provide opportunities to inculcate qualities of leadership among students. Moral character and accountability are generally observed in physically educated students.
8. Unnecessary mental stress can be avoided: Participation in physical education during adolescence helps in overcoming unnecessary stress. Gradually they learn to come out of such stress comfortably. Excitement in physical activities and sports help students to mange stress. This provides joy to students and provides stress free students life.
9. Gives direction for fruitful leisure time pursuits: Students tend to indulge in anti-social behaviours if they are not aware of making best use of leisure time. Experiences from physical education help in making use of leisure time in a productive way. Students can adopt sports and games as their hobbies.
10. Provides platform for exhibiting hidden talent: Everyone possesses hidden talent and is continually in search of such platform to exhibit them. In addition to good eye-hand and eye-leg coordination, if and individual develops physical fitness to an extent, there is every chance to become a high level sports person. Active participation in physical education provides necessary knowledge and experiences for career selection.

In order to derive above benefits, every student should participate in systematic physical education.

## EXERCISES

I. Fill in the blanks with suitable words.

1) Physical education is an $\qquad$ part of the total education of every child at different levels from primary through higher education.
2) Academic aspects of school curriculum address mental growth but $\qquad$ is essential in every school to ensure optimum physical growth and fitness.
3) $\qquad$ and $\qquad$ can lower the risk of becoming obese and developing related diseases.

## II. Answer the following in one or two sentences each

1) Write the aim of physical education.
2) What are the consequences of physically inactive lifestyle?
3) What are the physical fitness components?
III. Answer the following in two or three sentence each
4) Write the importance of physical education at school level.
5) How are long term health benefits derived from physical education?
6) What is sportsman spirit?
7) How does physical education help in career selection?

## Activities

1) Name the professional sportspersons and collect additional information.
2) Try to participate in sport of your choice during leisure.

Know:
The effects of exercise on skeletal and muscular systems.

## Know:

Collect information on development of physical fitness components from internet and Teachers

## Chapter-2

## VOLLEYBALL

## Following aspects are learnt in this chapter:

- History of the game.
- Layout of volleyball court, measurements and equipments.
- Rules of the game.


## History :

The game of volley ball was invented by William G Morgan of United States. In the beginning it was played for recreation purpose by using a ball which was a roll of clothes. The ball passed above the net which was tied to poles on both sides. The name 'Volley ball' was coined to this game because the ball passes or volleys above the net. This game had begun at Holyoake Massachusetts on Ninth February 1895. Earlier it had been named as 'Mintonet'. In 1896 Dr. Alfred Hallstead of Springfield renamed it as Volleyball.

YMCA (Young Men's Christian Association) had a major role in popularizing volleyball. As time evolved the rules of the game was modified and after 1916 'Three touch' rule had been established. During the First World War the American Army introduced this game to European continents. In the year 1947 FIVB (Federation

## Activity :

Collect the information about FIVB Head office, president and thier function. of International Volley Ball) came into existence. Paul Libaud was the first president of the federation. Later in 1964 the game was formally introduced at Tokyo Olympics.

## COURT DESCRIPTION AND MEASUREMENT :



Figure 1.1 : VolleyBall Court
The court measures a length of 18 meters and width of 9 meters. The court is divided into two equal halves of 9X9 meters. A line is drawn at a distance of 3 meters away from the center line and 6 meters away from the end lines. This line is called the Attack line'. It separates a court into front zone and back zone. The attack line is extended about 1.75 meters (This line is marked by five dash lines of 15 cms each with 20 cm spacing between
them). Similarly, both side lines are extended about 15 cms with a gap of 20 cm beyond end line (As shown in the picture) in order to limit 'Service area'.

The height of net in the middle of the court for men is 2.43 meters and 2.24 meters for women as well as sub junior boys and girls.

## Equipments :

The equipments that are used in volley ball are: a ball made of smooth leather, a net, side bands and antennae.

The ball: Spherical balls made of soft leather or synthetic materials are used in this game. Such a ball consists of bladder to inflate with air. The balls may be uniform bright coloured or mixture of several colours. Circumference of the ball when inflated shall be $65-67 \mathrm{~cm}$ and shall weigh about 260-280 grams.

The net: The volley ball net is 9.5 m to 10 m long and has meshes of 10 cm . square. The top of the net is fastened by a white band of 7 cm width along the length of net. On both sides of the net, white side bands are tied perpendicular to the side lines and its length is 1 meter and width is 5 cm .

Antennae: The antennas of 1.80 m length and 10 mm diameter are fixed at the outer edge of sidebands on both sides of the net.

Poles: The poles between which the net is stretched are fixed firmly .05 meter to 1 meter away from the side lines on either sides and in line with the center line. These poles should be spherical, smooth and 2.55 meters in length above the ground.

## Rules of the game :

Every team consists of 6 players and 6 substitutes. The team to serve first shall be decided by a toss of coin. Service is an activity in which one of the players from the serving team (situated in
zone 1) tosses the ball into air and then hits it into the opponent's court above the net. The receiving team will have maximum of three touches to return it from above the net.

The process of ball being sent across the net from one side to another continues till the ball is dropped or a team commits a foul. Such a process is known as 'rally'.

The team which wins a rally is awarded a point (the rally point system). The team which wins a rally gets to serve the ball with a point to its credit and players of serving team change their position as shown in the figure.


Figure 1.2 : Rotation

> Think:
> As a Captain of volley ball team, What are the techniques adopting for won the game?

Front and back rows are further subdivided into three areas as shown in the figure above. The area in which server is positioned is considered as zone- 1 .

The players of the team getting the opportunity to serve due to change of side shall move one step ahead clockwise. The player in zone -2 moves to zone -1 , the player of zone -1 moves to zone- 6 and so on.

Free zone of 3 meters shall be marked on all sides of the court. All lines are included in the play area there fore the lines are considered integral part of the court or the zone. Any ball that
touches any of the line is considered 'in' or 'good' ball. Antennas are tied perpendicular at both sides of net and are used to limit the space between side lines above net. All the balls during a rally should pass within the space of antenna without touching them.

Scoring : A team gets a point and the chance to serve when their opponents make a mistake. The team first to reach 25 points first with two points lead is considered winner of the set. A match consists of five such sets and the fifth or deciding set is usually played for 15 points. A team winning three sets is declared winner of the match.

## EXERCISES

I. Fill in the blanks with suitable words.

1. Volleyball game was invented in $\qquad$ country.
2. The earlier name of the game of volleyball was $\qquad$ .
3. The court measures $\qquad$ in length and $\qquad$ in width.
4. $\qquad$ is tied above side line vertically over the net.
5. Volleyball was formally included in the olympic games in $\qquad$ _.
II. Answer the following questions in one or two sentences each.
6. Who invented volleyball and when?
7. Which organization formed rules of the game for the firsttime?
8. What is the name of the line drawn at a distance of 3 meters from center line?
9. Name the equipments used in volleyball game.
10. How many players does a volleyball team consist of ?

## III. Answer the following questions in 3 to 4 each sentences.

1. Write any two rules of volleyball.
2. Draw the picture of rotation.
3. Write the measurement of volleyball net and mention the equipments used in net.
4. Explain the procedure to decide the winner of a volley ball match.
5. Draw a diagram of volleyball court and name the lines with measurement?
Iv. Match the list $\mathbf{A}$ with B.

## 'A'

'B'

1. Mintonette
a) Object tied at both ends of the net
2. Hallstead
b) It continues till the players make foul.
3. Paul Libaud
c) Earlier name of volleyball
4. Antenna
d) Gave the name volleyball
5. Rally
e) Smash the ball to opponent
f) First president of FIVB

## V. Activity :

1. Collect pictures of equipments used in Volleyball.
2. Gain experience of officiating a volleyball match.

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## Chapter - 3

## HOCKEY

## Following aspects are learnt in this chapter:

- History of hockey.
- Development of hockey in India and performance in olympics.
* Dimensions of hockey field and equipments.
* Rules of hockey.

Introduction : 'Hockey' is one of the popular games in India. India's golden era in the game lasted from 1928 to 1956 during which India won 6 consecutive gold medals at Olympic Games.

History : Depiction of men playing this game was found and 4,000 years ago old drawings are found in the Beni Hassan tombs of Nile Valley in Egypt. The statue found in the buildings of Themistocles in 478 B.C. depicted the image of six men carrying hooked sticks.

Sculptures in the Athens National Archaeological Museum exhibited youth playing a game called 'Keritizen'. This game has similarity with hockey. The name 'hockey' has been derived from French word 'hooquet' meaning stick of a shepherd.

Youth in England during 17th and 18th century used to proceed with hitting balls repeatedly from playfield of one village to the other. Teams consisted of 60 to 100 players and games usually lasted for several days. A game similar to the modern hockey was played at Eton College in England on a playfield of 200 meters length.

The 'British Hockey Association' was formed under the direction of Teddington Cricket Club in 1886. The English, Irish and Welsh Nationals formed the International Rules Board. The first Olympic Hockey competition for men was held at London in 1908.

Hockey in India : Indian soldiers started playing hockey after it was introduced by British soldiers during their rule. In this way hockey gained popularity in India.

The first Hockey Association in India was started in Kolkata. This was followed by Hockey associations at Mumbai and Punjab. In 1925 the 'Indian Hockey Federation' (IHA) was formed and got membership from International Hockey Federation (IHF).

## Hockey court and measurements:

This game is played mostly on grass or mud surfaces. National and international hockey matches are played on the artificial or grass surface called 'Poly Grass' or 'Astroturf'.


Figure 2.1 : Poly Grass


Figure 2.2 : Astroturf Court

## Know this :

Know, the names of the popular Hockey stadiums and their history with the help of your teacher and media.


Figure 2.3 : Hockey Court
Hockey is played on a rectangular playfield measuring 91.40 meters X 55 meters (100yardsX60 yards). Goal posts are kept at each end. In front of each goal post ' $D$ ' area (a semi circle) is marked. The penalty spot is marked at a distance of 6.40 m ( 7 yards) from the middle of goal post.

## Equipments of the game :

Hockey stick : The game, hockey is played with a stick of 36 to 39 inches length. One end of the stick is curved and its maximum weight shall be 737 Gms .


Figure 2.4 : Hockey Stick
Ball : The weight of the ball is 163 grams and circumference is 23.5 centimeters. It is covered by a thin shell of dimpled plastic. Leather coated ball is used to play on grass or mud surfaces.

## Think:

"Hockey is our National Game and we should know its background"


Figure 2.5 : Balls in Hockey
General Player Equipments: Players wear mouth guard to protect their teeth and gums; shin guards to protect shin bone; padded hand gloves to protect fingers and face masks at the time of short corners, penalty corners and penalty stroke in order to protect their face.

Goal Keeper's Equipments: Player defending goal post is called the goal keeper. Apart from holding a stick in his hand, a goalkeeper wears helmets, leg guards, kickers to kick the ball, chest protector, hand gloves, groin or pelvic protector, and arm guards.


Figure 2.6 : Goal Keeper's Equipments

## Common Rules :

$>$ A team consists of 11 players including a goal keeper and 5 substitutes. (Total 16).
$>$ A match consists of two halves of 35 minutes each with 10 minutes rest interval. The team scoring highest numbers of goals wins the match.
> Teams choose either to start the play by a back pass or select an end with the help of a toss.
> The Match Starts with back pass from the center of the pllay field. the non scoring team starts the play from center part of the playfield after a goal is scored. Similar procedure is followed during the start of play after half time.
> Substitutions can be made innumerable times among substitutes.
> The ball cannot be played by the back of the stick or by the legs.
$>$ During penalty corner only 5 defenders including the goal keeper can defend in the goal area. All other players of defending team should stay behind the center line.

## Penalties :

$>$ 'Free hit' is awarded to the opponents a foul is committed.
> A 'penalty corner' is awarded for all fouls by the defending team in 'D' area.
> The 'penalty stroke' is awarded to the opponents when a fault is made by the defending team in the ' D ' area when the ball is moving towards the goal post.
$>$ A 'short corner' is awarded to opponents when the ball is sent out of ' $D$ ' area by the defending team.

Dangerous Play : Lifting the ball up in a dangerous manner or raising the ball when the opponent is within 5 mtrs distance is dangerous play and sanctioned with suitable penalty.

Warnings and Suspensions : In hockey, three cards are shown to penalize a players.

A Green card $=$ Which indicate used to a warning.
A Yellow card $=$ Which is temporary suspension, for a palyer for minimum of 5 minutes duration.

A red card $=$ Is for permanent exclusion from the rest of the game to u player without substitution.

Scoring a goal : A goal is awarded to the team which successfully sends the ball into its opponent goal from ' D ' area.

Goal is disregarded if the ball is sent into the goal from outside the ' D ' area.

## EXERCISES

## I. Fill in the blanks using suitable words.

1. The British Hockey Association was started under the leadership of Teddington $\qquad$ club in 1886.
2. Indian hockey team won the Asian $\qquad$ medal for the first time in 1928 Olympics.
3. The Circumference of the ball used in Hockey match is
$\qquad$
II. Fill in the blanks with suitable options provided.
4. Hooquet is a term derived from $\qquad$ language.
a) German
b) Latin
c) Greek
d) French
5. The maximum weight of a Hockey stick is $\qquad$ grams
a) 737
b) 730
c) 760
d) 700
6. $\qquad$ card is used in hockey to indicate warning.
a) Red
b) Yellow
c) Green
d) Blue

## III. Answer the following questions.

1. What is a dangerous play?
2. Where was the first Hockey Association started in India?
3. Write the duration of a Hockey match.
4. Mention the measurement of the Hockey stick.
IV. Answer the following questions in two or three sentences each.
5. Describe a Hockey playfield.
6. Make a list of the protective equipments of a goal keeper.
7. Write the situations in which cards are used in hockey.
8. What is the differentiate between 'penalty stroke' and 'penalty corner'?
9. Write the process of scoring a goal in hockey.

## V. Activity.

1. Construct a hockey playfield including all lines with the help of thermocol.
2. Prepare list of responsibilities and regulations governing a goalkeeper.

## Chapter - 4

## HANDBALL

## Following aspects are learnt in this chapter :

- Development of handball.
- Handball court and specific measurements.
- Equipments used in handball.
- Rules of handball.

Introduction: The game of Handball is played between two teams of seven players each. The basic skills of running, jumping, catching and throwing are combined into a fast moving exciting game. Object of the game is to score more goals than opponents by throwing the ball into their netted goal. Elements of basketball, soccer, hockey and water polo can all be seen in this Olympic Game that has become one of the popular games in the world.

History: Handball is believed to be one of the oldest games of humanity. There are strong evidences stating that the ancient Greeks and Romans played games similar to modern handball.

Handball was discovered by picking selected components of games that were in existence in northern Europe during late 19th century. The first written set of team handball rules was published in 1906 by Dane Holger Nielsen. The modern set of rules was published by Max Heiser, Karl Schelenz, and Erich Konigh from Germany.

The International Amateur Handball Federation was established by 11 countries during the summer Olympic Games in 1928. It was replaced in 1946 by the International Handball Federation (IHF) which is still in existence.

In the early part of 20th century, Handball was an eleven-a side game played outdoors on a soccer playfield. Its popularity spread throughout Europe. Major modifications were considered essential in northern Europe due to extreme climatic conditions. The need for indoor handball became apparent. Handball became faster and more exciting since it became an indoor game and gained rapid popularity throughout Europe.

An exhibition match was organized as part of demonstration at Berlin Olympics in 1936. In spite of German team showing noticeable performance in the match, the game was not included in the following Olympic games. Team handball for men was formally included in the Munich Olympics during 1972 and for women it was introduced in 1976 Montreal Olympics.

Initially World Handball Championship was organized once in every 3 or four years. Presently it is organized once in every two years for both men and women. IHF has been organizing World Championships for even junior boys and girls. As of July 2009 IHF report, that there are approximately $7,95,000$ teams from 166 member federations and a total of 19 Million players.

Court description: The Handball game is played in a rectangular court measuring 40 m . length and 20 m . width. The goal post is placed at the centre of the either ends. The goals are surrounded by a near semi circle line 6 m . away from the goal. There is also a dash near semi circular line 9 m away from the goal. Other than these, a court consists of a goal line, 7 m line, a center line, lines to mark substitution zones. The goal line between the two goal posts are 7 cms wide and all other lines are 5 cms in width.


Figure 3.1 : Structure of Hand Ball Court
Equipments description: The ball used in the game of handball is smaller than a football in order to be able to hold and handle it with single hand. The ball consists of 32 panels over it and its size varies for men and women as follows.


Figure 3.2 Hand Ball

|  | men and <br> youth above <br> 16 years | woman, girls <br> above 14 years <br> and boys <br> between 12-16 <br> years | girls between <br> $8-14$ years and <br> boys between <br> $8-12$ |
| :---: | :---: | :---: | :---: |
| Circumference | $58-60 \mathrm{cms}$ | $54-56 \mathrm{cms}$ | $50-52 \mathrm{cms}$ |
| Weight | $425-475 \mathrm{~g}$ | $325-375 \mathrm{~g}$ | $290-330 \mathrm{~g}$ |
| Size | 3 | 2 | 1 |

## Goal Post :

The goal posts are firmly fixed at the centre of both ends measuring 3 meters in width and 2 meters in height. The width of the post at the front is 8 cm and is painted with two contrasting colours. The rare sides of the goals are fastened by nets.


Figure 3.3 : Hand Ball Goal Post


Figure 3.4 : Hand Ball Goal Post

General Rules: The hand ball game is played by two teams of 7 players including a goal keeper. The objective of the game is to put the ball into opponent's goal while defending their own goal from attack. The duration of a regulation game is 30 minutes +10 minutes rest interval +30 minutes. For players between the ages of 12 to 16 years the time duration is 25 minutes +10 minutes rest interval +25 minutes. If the match ends in a tie after the stipulated time, an extra period of 5 minutes +1 minute rest interval +5 minutes is given for play after a rest of 5 minutes. If the tie further continues after the end of extra time, another extra period of 5 minutes +1 minute rest interval +5 minutes is given. If the tie is still not broken the organizer of the tournament will decide the winner of the match suitably. There is a provision for time-out of 1 minute in each half to both the teams. The match starts with a "throw off". Toss in the beginning of the match decides the team to perform the throw off and begin the match. The game proceeds undisturbed except in case of injuries, team time-outs and at the discretion of referee. Team succeeding in putting the ball into the opponent's goal is awarded one point.

Goal area is marked by a near semicircle at a distance of 6 meters from each goal. Although contact with opponents is allowed in handball but one cannot make use of his hands and legs. Pushing, Holding or endangering a player is forbidden. Players involved in rough play will be penalized with 2 minutes suspension.

Passing is the primary way to move the ball in attack. A player may take three steps with the ball before and after dribbling. Ball can be held y for not more than three seconds. The attacking player's task is to find a way over, around or through the defensive wall for scoring points.

After a goal is scored, the team conceding the goal restarts the game from the center line after the signal from referee. All the players of that team must remain behind the center line on their own half.

Players are not allowed to enter the goal area except the goal keeper of defending team. However, the players can attempt to play the ball if it is in the air within the goal area. If a defender interferes with an attacker while in the act of shooting, their team is penalized with penalty shoot. During this, only one attacker behind seven meter line and the defending goal keeper shall be involved. The ball possession is given to the opponents for free throw in all other situations including rough play.

| Activity: |
| :--- |
| Collect the Hand ball <br> results in 2012 Lundon <br> olympics. | If such behaviour is continued or intensity of rough play is increased the punishment is progressively increased. Such situations are dealt either by showing yellow card for 2 minutes suspension or red card. Penalizing should be based on IHF regulations. The coach is also brought under the purview of such panalty.

## EXERCISES

## I. Fill in the blanks with suitable words.

1. Handball match starts with a $\qquad$ .
2. A penalty throw is taken from $\qquad$ meter line.
3. The width of a goal line is $\qquad$ cms.
4. IHF stands for $\qquad$ .
II. Answer the following questions in one or two sentences each.
5. Who published the rules of Handball for the first time and when?
6. Who formulated the rules of modern Handball?
7. When did the International Amateur Handball Federation come into existence?
8. How many National federations have received the membership of I.H.F. as per its 2009 report?

## III. Answer the following questions in 3-4 sentences.

1. Explain how the hand ball game was included in Olympics.
2. Write a note on the Organization of Handball World Championship?
3. Write a short note on the ball used in the game of hand ball.
4. Explain the process of imposing penalties in handball.
IV. Match the following words on list ' $A$ ' with list ' $B$ '.

## ' A '

1. Line width of the court
2. IHF came into existence
3. Tickness of goal post
c) 1946
4. Hand ball included in the Olympics
d) 8 cms

## V. Activity.

1. Collect pictures of costumes worn by handball players.
2. Collect information on games similar to handball and write an essay.

## Chapter - 5

## BASKET BALL

Following aspects are learnt in this chapter:

* History and development of basketball.
* Basketball court and its dimensions.
- Equipments used in basketball.
- Rules of basketball.

Introduction: Basketball can be played by everyone indoors as well as outdoors. Apart from playing it for competition, the game is also played for recreation. Certain rules are to be followed while playing it for competition. In all other circumstances certain modifications to the basic rules can be made.

The game is played between two teams of 5 players each in a rectangular court. The main objective of the game is to score a point by shooting an inflated ball through a ring mounted 3.05 meters above and parallel to the ground. Both the attackers and the defenders attempt to score as many as points by using the skills like shooting, passing, dribbling, and rebounding.

History: The teacher of Y M C A, spring field Dr. James A Naismith invented the game of basketball during December 1891. He structured the game as a response to the direction given by Dr. Luther Gullick, Director of Physical Education department at Y M C A. The objective was to structure an indoor game similar to football which kept the students in good Physical shape during extreme winter season.

Dr. Naismith wrote the basic rules of Basketball game by keeping in view the rough walls of Gymnasium. Accordingly, a basket of peach fruit was fixed to the wall at a height of 10 feet. In the year 1906 metal hoops and back boards were used instead
of basket. This facilitated retrieval of the ball after a point was scored each time. Gradually many changes were adapted and the presently prevailing ring and net used in order to make the ball pass through the basket freely. Initially the game was played with a soccer ball. During 1950 the present orange color ball was invented and visibility was enhanced. The team that scored highest number of baskets was considered winner.

Dr. Naismith initially doubted the success of the game he invented. The game was named as 'Basketball'. A formal match was played for the first time in 1892 at YMCA Gymnasium hall. The match was played between two teams of 9 players each by following certain prevailing rules which ended with a score of 1-0. The basket was to be scored from a distance of 25 feet and the court was half the size of present one.

In 1938 a National Level invitational inter collegiate Basketball tournament was organized for the first time in America. The National Collegiate Athletic Association (NCAA) competitions were started during this time. The top most professional organization of the game, National Basketball Association (NBA) was established in America during 1946. Basket ball was included in 1936 Berlin Olympics.

Court description : The Basketball court specified by FIBA should be rectangular in shape as shown in the figure. Important lines are mentioned in the picture.

All lines should be 5 cms in width. A basket should be formed by attaching a ring to a backboard at both ends of the court and mounted at both ends. At all levels of competition the height of the ring should be 3.05 meters from the ground and it should be projected 1.20 m inside the court from the end lines. The details of backboard and

## Activity :

Make a list of the rules of basketball game and exhibit in the class. basket are mentioned in the picture.


Figure 4.1 : Structure of Basket Ball Court


Figure 4.2 : Back Board and Basket

Equipments: The ball should be spherical and made of leather or other synthetic materials. To check the air pressure within the ball it should be dropped from a height of 1.80 meters and the lower edge of the ball should bounce to a height


Figure 4.3 Basket Ball between 1.20 meters to 1.40 meters. The measurement differs for both men and women and is given as below.

| Men |  | Women |  |
| :---: | :---: | :---: | :---: |
| Circumference | Weight | Circumference | Weight |
| 74.9 to 78 cms | 567 to 650 <br> gms | 72.4 to 73.7 <br> cms | 510 to 567 <br> gms |

The length and width of the back board should be 1.80 m and 1.05 m respectively. It should either be of a transparent material or painted white. The lines on the back board should be clearly visible and 5 cm in width. A rectangle measuring 59 cm horizontally and 45 cms vertically is marked inside the backboard. Among other equipments stop watches, foul indicators, arrow marks, score sheets and score sheets are essential.

General Rules : Basket ball game is played between two teams of 5 players each. There are no restrictions for substitution of players but it has to be accomplished when the game has temporarily stopped. There shall be 7 substitutes for this purpose in each team. The main aim of the game is to put the ball into opponent's basket (metal ring with net) and to prevent the opponents from putting the ball into own basket. The half of the court in which their scoring basket is situated is called front court' and the other half of the court is which their defending basket is situated is called 'back court'.

To advance with the ball, one should either pass the ball or dribble the ball as many times with one hand at a time. Basic skills like foot work, holding the ball, dribbling, shooting, passing, rebounding, movement without ball and with are used by the players during play.

Total duration of the match shall be 40 minutes and it is divided into 4 periods of 10 minutes each. There shall be 15 minutes rest interval during half time and during all other intervals a rest interval of 2 minutes is permitted. If the match ends with a tie at the end of the stipulated time, an extra time of 5 minutes is played to decide the winner of the match. This process of playing for 5 minutes continues till the tie is broken. Teams should change their playing ends after the half time.

Each team gets two charged time outs of 1 min in first half and three such time outs in second half.

A field goal scored from the three point field goal area fetches 3 points, all other field goals fetch 2 points and a free throw is worth 1 point. The clock stops at the time of violation of rules and fouls made by the players.

Violations: Dribbling the ball simultaneously with two hands, moving more than one step while holding the ball, dribbling the ball after the end of a dribble, deliberate use of legs for controlling the ball, carrying the ball, staying more than 3 consecutive seconds in the restricted area, 3 seconds violation, 8 seconds violation and 24 second violations are prominent.

Fouls: Holding, pushing, charging, and impeding the progress of an opponent, restricting the freedom of movement of the opponent or disturbing the initiation or ending of movement of the opponents by extending arms or legs are considered as fouls.

## EXERCISES

I. Fill in the blanks with suitable words.

1. Basketball court is $\qquad$ shaped.
2. Basketball game was included in $\qquad$ Olympics.
3. The circumference of basketball for men is from $\qquad$ to $\qquad$ .
4. Time duration of the game has been divided into four periods of $\qquad$ minutes each.
5. $\qquad$ point is awarded to every free throw.
II. Fill in the blanks with suitable options given below each sentence.
6. $\qquad$ invented Basketball
a) Dr. Luther Gullick
b) Dr. James Naismith
c) Max Heiser
d) Koneig
7. Total duration of a Basketball match is $\qquad$ minutes.
a) 30
b) 40
c) 60
d) 35
8. The weight of the basketball used in women match is $\qquad$ grams to $\qquad$ grams
a) 567 to 650
b) 500 to 600
c) 510 to 567
d) 510 to 576

## III. Answer the following questions in one or two sentences each.

1. Who invented basketball and when?
2. Which basket was used in the game of basketball initially?
3. When was National Basketball Association formed?
4. Write the measurement of backboard.
IV.Answer the following questions in three or four sentences each.
5. What was the reason behind basketball invention?
6. Write a short note on first official basketball match.
7. What are the violations in Basketball?
8. Write on the officials required in Basketball.
V. Match the measurements in list ' $B$ ' with suitable words in list ' $\mathbf{A}$ '.

## ' A '

1. Court
a) 567-650 grams
2. Diameter of basket ring
b) $180 \times 105 \mathrm{~cm}$
3. Ball weight (men)
c) 45 cm
4. Back board
d) $510-567$ grams
5. Ball weight (women)
e) 28 m X 15 m .

## VI. Activity :

1. Collect brief information on the International bodies related to basketball.
2. Discuss about the signals used by officials in a basket ball match in groups and list the purpose of the signal.
3. Draw a diagram of basketball court.


## Chapter - 6

## BADMINTON

## Following aspects are learnt in this chapter:

* History and development of badminton.
- Badminton court and its dimensions.
* Equipments used in badminton.
- Rules of badminton.

Introduction: The game of badminton was in existence since ancient days but got much popularity recently. This game is not only played for competition rather it is played for maintaining health and also to derive recreation. It gives happiness and generates interest in all sections of people. This game requires less space, minimum equipments and individuals of all age groups can play.

## History:

In 1873, the Duke of Beaufort held a 'Lawn party' in his palace at Goucester Piri, England. A recreational game was arranged for the guests who arrived at the party. This game came to be known as 'badminton' because it was played at 'Badminton house' of Duke. In 1870's British Army officers initiated the game in India and it was called by the name 'Poona'. 'England Badminton Federation' (EBF) was established in 1893. 'All England Championship' had been organized since 1899. This championship is considered top most at International level. Badminton was included in Olympics in 1992 at Barcelona.

## Introduction of the court:

Singles, doubles, mixed doubles matches are played in Badminton. In singles, the lines inside side lines is considered for play (as shown in the fig). Entire court is considered (doubles side lines) in doubles and mixed doubles. Shuttle dropping in the
rear box in doubles is considered foul, but such a serve is legal in singles match. A center line divides the court into left and right half (service line to end line). The court includes the right service zone, left service zone, service line, short service area, side lines, end lines, long service area are systematically depicted in the figure. There are 4 boxes in each corner of the court and shuttles dropping in these boxes during service are considered foul in both singles and doubles. Shuttle dropping in these boxes during rally in singles is considered foul but it is legal in doubles.


Figure 5.1 : Badminton Court.

## Activity :

Discuss the performance of India in All England Championship.

## Dimensions of the court:

Since single and doubles matches are played in the same court it is necessary to note the differences in measurements.

| Singles | Breadth $5.18 \mathrm{~m}(17 \mathrm{ft})$ <br> Length $13.40 \mathrm{~m}(44 \mathrm{ft})$ |
| :--- | :--- |
| Doubles | Breadth $6.10 \mathrm{~m} \mathrm{(20} \mathrm{ft)}$ <br> Length $13.40 \mathrm{~m}(44 \mathrm{ft})$ |

Distance between pole and short service line: 1.98 m ( $6^{\prime} 6^{\prime \prime}$ )
Back box of the court $0.76 \mathrm{~m}\left(2^{\prime} 6^{\prime \prime}\right)$ Side box of the court 0.46 m (1'6")

## Description of equipments :

## 1) Racket :

Head of the racquet is oval shaped and woven with strings. The length of the racket is 68 cm . The length of head is 29 cm and its width is 23 cm . The weight of the racquet should be between 83 to 100 grams. The racquet is made from a blend of materials including steel, aluminum, ceramic and boron.


Figure 5.2 : Racket

## 2) Shuttle :



Figure 5.3: Shuttle Shock

A shuttle is made up of synthetic material and consists of 16 feathers in it. The length of the feather is 62 mm to 70 mm from its top to the base of cork. The diameter of the circle formed at the top of feather is 58 to 68 cm . The circumference of the cork base is 25 to 28 mm . The weight of the shuttle should be 4.74 grams to 5.50 grams.

## 3) Net:



Figure 5.4 : Net
The length of the net is 6.10 m and its width is 76 c m . The dimensions of the mesh should be minimum 15 mm and maximum 20 mm . The tape on top of the net is white in colour and its width is 7.5 cm . A rope passing through the top of the net is tied to poles at either ends. The height of the net is 1.55 mts at the extreme corners and 1.52 mts at the center from ground.

## 4) Poles :

The poles are fixed at the outer edge of the side lines and their height is 1.55 meters.

## 5) Rules:

The officials perform toss in order to decide the team to serve and select ends through a toss prior to the match. It is understood that there are singles, doubles and mixed doubles in badminton. Now we shall learn about the common rules of the game.

- A match includes three games. Team winning two out of three games is the winner.
> The match is played for 21 points. If the score is level at 20 points, the match continues till a difference of two points is achieved. (maximum limit is 30 points)
> Team winning the preceding set gets the opportunity to serve in next set.
> Players change their playing ends after the end of each set.
> Players change their playing ends at 11 points in the 3rd or deciding game.
> The side scoring 30th point will be the winner of the game when the scores are level at 29 points.
$>$ A timeout of 1 minute is permitted in every game (when a team reaches 11 points) and an interval of two minutes is given in between games.
> Players should not leave the court without the permission of referee when the game is in progress (except during time outs).
> The server and the receiver should occupy diagonal positions while serving.
- The feet of both server and receiver should be on the ground at the time of service.
> Serves have to be done from right court during the score of the server is even and from left court if it is odd.
> The server should drop the shuttle before hitting it through racquet during serve.

6) Following situations are considered foul :
> If the shuttle is not hit in single stroke during rally or service.
> If the shuttle lands outside the boundaries of the court.
$>$ If the shuttle does not land in diagonal court during a serve.
$>$ If the server touches the short service line.
$>$ If the shuttle lands in the short service area.

## EXERCISES

## I. Fill in the blanks with suitable words.

1. The maximum weight of the racket is $\qquad$ .
2. The height of the badminton pole is $\qquad$ .
3. $\qquad$ Championship started in 1899.
4. There are $\qquad$ points in a game.
II. Answer the following questions in one or two sentences.
5. How did the name badminton originate?
6. What is the number of feathers in a shuttle?
7. From which end shall the server serve when his score is even?
8. Name any two equipments used in the badminton.

## III. Answer the following questions in three or four sentences each.

1. Explain the history of the badminton game briefly.
2. Draw a badminton court and mention its measurements.
3. Write any two rules of badminton.
4. Write the details of net.

## IV. Activity.

1. Collect pictures of equipments used in Badminton.
2. Share the feelings of badminton game from the players of your school who have played competitive badminton.

## ATHLDTICS

## Chapter- 7

## MIDDLE AND LONG DISTANCE RACES

Following aspects are learnt in this chapter :

* Introduction to middle and long distance races.
- Start and finish of middle and long distance races.
- Rules of the competition.
- Records in middle and long distance races.


## Introduction:

Middle and Long distance races are prominent among athletic events. Participating in such events requires huge level endurance.

1. Middle distance running events: $800 \mathrm{~m}, 1500 \mathrm{~m}, 3000 \mathrm{~m}$, races are considered middle distance events.
2. Long distance running Events: 5000m, 10000m, Cross country races, Half Marathon (21.098m), Marathon (42.195m) races are considered long distance events.

## Start of the race:

All the events in Middle and Long distance running are usually started in a group. Because the number of participants in such events is higher than the number of lanes and the rule does not insist on running in respective lanes. Starts of such events require a curve marked in the track. It is also called diagonal axis. Straight lines are marked in all other situations.

## Rules of the competition:

1. All the events are run in groups.
2. Heats are made if there are large numbers of participants in the track events. Specific number of selected athletes from each heat takes part in the final race.
3. If the competitors are more than twelve, two groups can be made and race can be started simultaneously.

## Start of the race:

The starter starts the event with the command 'On your mark' in track events covering distance more than 400 meters. This command will be followed by firing of gun or command by the starter. There is no 'set' command in these races.
competitors are not allowed to touch or cross the starting line or any space beyond the starting line by hand or by leg during 'on your mark' command.

## Lap scorers:

The referees nominate enough number lap scorers for events covering more than 1500 mts . They are provided with lap scoring sheets. A maximum of 4 participants are allotted to each lap scorer as per their availability. They record the laps completed by each participant allotted to them.

## Finishing of the race:

The result of the competition is declared by the judges at the finish. Judges at the finish operate from finishing stand which is placed inside the track in line with the finish line 5 meters away from the first lane. All the Judges operate from the same place and decide upon the order of finish.

The places are allotted to the participants in the order in which their torso or chest crosses the inner edge of finishing line.

## Activity :

Make a list of the fouls committed in long distance races.

## Details of records at State, National and International

 level in men section.|  |  | Inter national | National | State |
| :---: | :---: | :---: | :---: | :---: |
| Middle <br> distance running | 800 m | David Rudisha <br> -Kenya <br> 1:41.01 <br> (2010) | Sri Ram <br> Singh <br> 1:45.77 <br> (1976) | Damodar Gowda 1:50.40 (1986) |
|  | 1500 m | Hicham El GuerroujMorocco 3:43.13 (1998) | Bahaddur <br> Prasad <br> 3:38.00 <br> (1995) | Sathya <br> Narayana 3:50.10 <br> (1986) |
|  | 3000 m | Daniel Komen <br> -Kenya <br> 7:20.67 <br> (1996) | Surendra <br> Singh <br> 7:50.31 <br> (2008) | Arun D'souza $\begin{aligned} & 9: 11.07 \\ & (2001) \end{aligned}$ |
| Long distance running | 5000 m | Kenenisa <br> Bekele - thiopia $\begin{aligned} & 12: 37.35 \\ & (2004) \end{aligned}$ | Bahaddur <br> Prasad <br> 13:29.70 <br> (1992) | K M Suresh 14:07.00 <br> (1986) |
|  | 10000 m | Kenenisa <br> Bekele- Ethiopia $26: 17.53$ <br> (2005) | Surendra <br> Singh 28:02.89 <br> (2008) | KM Suresh 30:01.00 <br> (1986) |
|  | Half <br> Marathon | Zersenay <br> Tadese -Eritria 58:23.00 <br> (2008) | Deep <br> Chand 1:04.00 <br> (2009) | - |
|  | Marathon | Geoffrey <br> Mutai- Kenya 2:03.02 <br> (2011) | Shivnath <br> Singh <br> 2:12.00 <br> (1978) | $\begin{aligned} & \text { K M Seetharam } \\ & 2: 15.10 \\ & (1982) \end{aligned}$ |

* The records are limited to 14-09-2012


## Details of records at State, National and International level in women section.

|  | Events | International | National | State |
| :---: | :---: | :---: | :---: | :---: |
| Middle distance running | 800 m | Jarmila <br> Kratochvílova, <br> Slovakia <br> 1.53.28 <br> (1983) | $\begin{aligned} & \text { Tintu Luka } \\ & 1: 59.17 \\ & (2010) \end{aligned}$ | $\begin{aligned} & \text { Rosa Kutti } \\ & 2: 04.10 \\ & \text { (1995) } \end{aligned}$ |
|  | 1500 m | Qu Yunxia, China $3.50 .43$ (1993) | $\begin{aligned} & \text { Suneetha Rani } \\ & 4: 06.03 \\ & (2002) \end{aligned}$ | $\begin{aligned} & \text { Rosa Kutti } \\ & 4: 28.80 \\ & (1995) \end{aligned}$ |
|  | 3000 m | Wang Junxia, China <br> 8.06.11 <br> (1993) | Molly Chaco <br> 9:06.42 <br> (1994) | - |
| Long distance running | 5000 m | Tirunesh Dibaba, Ethiopia 14.11.15 (2008) | Preeja Shreedharan 15:15.89 (2010) | $\begin{aligned} & \text { L. Manjula } \\ & 18: 27.20 \\ & (2000) \end{aligned}$ |
|  | 10000m | Wang Junxia, China $29.31 .78$ (1993) | Preeja <br> Shreedharan <br> 31:50.47 <br> (2010) | Renuka <br> Hegde <br> 38:51.50 |
|  | Half <br> Marathon | Paula Radcliffe, Great Britain 1.05 .40 (2003) | Kavitha Rauth <br> 1.12 .50 <br> (2009) | - |
|  | Marathon | Paula Radcliffe, Great Brittan <br> 2.15.25 <br> (2003) | Vali <br> Sathyabhama <br> 2:38.10 <br> (1995) | - |

## EXERCISES

## I. Answer the following in one sentence each.

1. Which are the middle distance events?
2. What should be the position of participant during 'On Your Mark'.
3. Why are middle and long distance races run in groups?
4. Write the names of middle and long distance athletes creating records at State level in men section.

## II. Activity.

1. Collect pictures of International level athletes in middle and long distance races.
2. Collect information about the state, prizes and medals of athletes who have created National records.
3. Write the names of athletes of your school who have participated in middle and long distance races at taluk level since last 5 years.


## Chapter-8

## HIGH JUMP

## Following aspects are learnt in this chapter:

* Rules of high jump competition.
- Probable fouls in high jump event.
* National and International level records in high jump.


## Basic rules of high jump :

1. A High jumper should take-off on single leg.
2. A maximum of 3 attempts are given in a particular height.
3. The competitors should be informed regarding the increase of cross bar from begining to finish of the event.
4. The bar height should be raised systematically after it is successfully completed by all the competitors.
5. Competitors have the opportunity to give a pass to a specified height in this event.
6. Athletes failing to clear a specific height shall have to leave the competition.

## Fouls :

1. Cross bar falling due to the contact of jumper during an attempt is considered a foul.
2. An attempt will be registered in the name of jumper in case if he touches the up rights, cross bar, landing pit before taking off.
3. No athlete can return through the space below cross bar.
4. No trials or approach run is permitted to the athletes after the competition has begun.

## Activity :

Discuss other skills used in high jump.
Records at National and International level in high jump :

| Section | National level | International level |
| :---: | :---: | :---: |
| Men | Harishankar Roy 2004, <br> 2.25 m | Javier Sotomayor, Cuba <br> $(1993) 2.45 \mathrm{~m}$ |
| Women | Bobby Aloysius 2004, <br> 1.91 m | Stefka Kostadinova, Bulgaria <br> $(1987) 2.09 \mathrm{~m}$ |
| * The records are limited to 14.9.2012. |  |  |

## EXERCISES

I. Answer the following questions in one or two sentences each.

1. How many attempts are given to an athlete for clearing a specific height?
2. In which year did Javier Sotomayor set the international record in high jump?
3. Mention the Harishankar Roy's National Record.
4. What will be the decision if the cross bar falls due to the contact of jumper during an attempt?

## II. Write true or false.

1. Athlete can take a take-off with both the legs simultaneously.
2. Three attempts shall be given for clearing a specific height.
3. An athlete remains in the competition after three consecutive attempts at a specific height.
4. The height of the cross bar shall be systematically raised after it is attempted by all competitors.
III. Answer the following questions in three or four sentences each.
5. Make a list of the fouls in high jump.
6. Write the basic rules of high jump.
7. Mention the national and international records in high jump.
IV. Match the list A with List B.

## ' $\mathbf{A}$ '

'B'

1. Xavier Suto Mayor
a) 2.09 m
2. Bobby Aloysius
b) 2.25 m
3. Stefka Kostadinova
c) 1.91 m
4. Hari Shankar Roy
d) 2.45 m
V. Activity.
5. Collect pictures of national and international athletes performing high jump.
6. Collect information about the students of your district who have participated in high jump.

## YOGA

## Chapter - 9

## YOGASANA

## Following aspects are learnt in this chapter :

- Difference between yogasana and exercise.
- Understanding the meaning and importance of pranayama.
- Preparation for pranayama practice.


## Difference between Exercise and Yoga :

Yoga and exercises are the two faces of a same coin. Yoga and exercises are essential to every human being for maintaining physical fitness and mental health. Yoga reveals and develops internal resources where as exercise strengthens muscle and improves physical fitness.

| Sl. No | Yoga | Exercise |  |  |
| :---: | :--- | :--- | :---: | :---: |
| 1 | Yoga is performed |  |  |  |
| effortlessly |  |  |  |  |$\quad$| Exercise is performed with effort |
| :--- |
| repeatedly |$\quad$| Yoga gives attention |
| :--- |
| to breathing |$\quad$| Exercise does not provide enough |
| :--- |
| attention to breathing |

## Terms related to Pranayama:

| Pooraka: | Inhaling oxygenated air |
| :--- | :--- |
| Rechaka: | Exhaling de-oxygenated air |
| Kumbaka: | Breathe holding |

Pranayama is a fourth facet of Astanga Yoga. It is a conscious practice of inhalation, exhalation and breath control. Patanjali describes pranayama as the process of inhaling and exhaling in a stable sitting posture (Sthirasana) in his book 'Yogastra'.

Higher amount of oxygen inhaled during pranayama initiates several chemical reactions within the body. Oxygen is the basis
for all activities in the universe. Pranayama plays an important role in supplying vital energy to every body part.

## Activity :

- Write notes on Raja yoga and Bhakti yoga.
- Obtain information on other facets of Ashtanga Yoga.
- Develop the habit of practising Pranayama and yoga every morning.


## Importance of Pranayama:

1. Pranayama plays an important role in supplying pure blood to nerves, brain, spinal cord and heart muscles. This improves a person's efficiency.
2. Pranayama cleanses respiratory tract and helps in retaining the functioning of the body parts. This reduces dizziness caused due to imbalance in acid base balance.
3. It helps in improving perception, digestion, memory power. It releases mind from the control of body and stimulates intellect.
4. Cool and composed mind can be achieved through regular practice of Pranayama.
5. Pranayama facilitates intake of oxygen and exhalation of carbon dioxide in higher quantities.
6. Rhythmic and systematic process of breathing in Pranayama makes mind tension free and creative.

## Preparations for practice of Pranayama:

1. Morning or the Evening are suitable time to practice Pranayama.
2. Pranayama should be practised on a suitable carpet.
3. Bowels and bladder should be emptied prior to Pranayama practice.
4. Practising in empty stomach is suitable.
5. It is better to practise Pranayama after two hours of food consumption.

## EXERCISES

I. Fill in the blanks with suitable words.

1. Pranayama is the $\qquad$ facet of Ashtanga yoga.
2. $\qquad$ is the base for all activities in nature.
3. Yogasana provides $\qquad$ stability.
4. Inhalation of $\qquad$ is called 'Puraka'.
II. Answer the following questions in one or two sentences each.
5. Which is the suitable time to practice Pranayama?
6. What is Pranayama?
7. Write one difference between Yoga and Exercise.

## III. Answer the following questions in three or four sentences each.

1. Explain the importance of Pranayama briefly.
2. How do you prepare yourself for the practice of Pranayama?
3. Write the meaning of Puraka, Rechaka and Kumbhaka.

## IV. Activity :

1. List another eight yogasanas that are not included in this book.
2. Share the experiences derived by practice of pranayama under the guidance of the teacher.

## HBALTH BDUCATION

Chapter - 10

## MENTAL HEALTH AND EMOTIONS

Following aspects are learnt in this chapter:

- Meaning and importance of mental health.
- Understanding of positive and negative emotions.
- Understanding of balanced emotions.


## Mental health :

The aim of our present day life is to get adjusted to changing circumstances, accomplish our tasks and get adjusted with fellow beings. Achieving this requires an integrated and balanced personality. Every individual tries to overcome the complexities of life coming their way. The resultant success or failure depends on the effort put forward by the individual. Pessimism may creep in at times when he encounters failure in the attempt. This state leads to mental imbalance. Mental health in such situation is unfavorably affected and leads to creation of imbalanced personality.

In today's life mental health is as important as the physical health itself. The study of mental health is given ample importance in order to prevent or overcome mental health related diseases.

## Meaning of Mental health :

The World Health Organization (WHO) defines health as a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community.

## Understand :

Good thoughts and creativity leads to betterment of mental health.

## Importance of Mental Health :

It is essential to obtain and maintain good mental health for longevity and healthful living. Self-esteem, inter personal relationships, and day to day transactional capability is hindered due to lack of mental health. This eventually affects physical health of that individual.

We observe behavioral fluctuations in individuals lacking mental health. Use of drugs, alcohol consumption, quarrels and destructive actions are important among them.
$>$ Good mental health enhances self confidence leading to inde pendence.
> It develops the ability to adjust according to changing circum stances.
$>$ Good mental health may lead to control over emotions.
$>$ Good mental health inculcates time sense.
> It helps in shaping better citizens in the society.

## Emotions :

Emotions are the activities of mind. Mind gets elevated when an individual encounters joy and sorrows. Emotions play major role in the life of an individual and without the emotions a life may be lusterless. Emotions can either be positive or negative.

Positive emotions: Positive emotions are also be identified as 'pleasant emotions'. Love, affection, joy, appreciation etc. are positive emotions.

Benefits: Positive emotions help in the growth and development of an individual. It helps to build good relationship with fellow beings in the society. They are helpful in exhibiting high moral character in the society. The achievements of an individual are the result of his positive emotions.

## Negative emotions:

Fear, disapproval, humiliation, anger, jealousy, sorrow etc. are considered negative emotions. Behaviours of other people in the society may lead to negative emotions in a person. Sometimes
negative emotions create favourable effects. Usually people hesitate to express such emotions. Negative emotions may harm the physical and mental health of individuals when they are not expressed in an appropriate way.

## Balanced emotional development:

People express all types of emotions according to situations. Emotions cannot be judged as good or bad in a one sided manner. Each and every person experiences both positive and negative emotions during their lifetime. Emotions have to be accepted as it is experienced. It has to be expressed righteously. Negative emotions are experienced commonly. It is difficult to stop such emotions but its expression should be appropriate.

Think : Recall negative and positive emotions experienced by you in the past and the outcome that followed.

## EXERCISES

I. Answer the following questions in one sentence each.

1. What is mental health?
2. What are emotions?
3. Make a list of the negative emotions.

## II. Answer the following questions in two or three sentences each.

1. Write any 3 objectives of mental health science.
2. Write the characteristics of a mentally healthy person.
3. What are the benefits of positive emotions?

## III. Activity.

1. Observe and list positive and negative emotions expressed around you on a particular day.
2. Discuss regarding motivational strategies adopted by your Physical Education Teacher during competitions.

## Chapter - 11

## FIRST AID

## Following aspects are learnt in this chapter:

* Need for first aid.
- Procedure of first aid in different situations.

There are possibilities of injury at home, school or external environment. At that initial stage of management of such siluations. First aid is necessary. It prevents further worsening of the condition. Let us now learn the preventive measures and procedures of First aid in such situations.

## Burns :

Burns occur when body or any part of the body comes into contact with fire, heated metals, Chemicals, acids, electricity etc. Careless burning of crackers during Diwali and other situations, cooking gas stoves may also lead to burns. Sometimes the burns lead to disability and may even lead to death.

## Treatment:

The burnt area should be carefully treated. One should not run in fear when the clothes are alighted with fire. The victim should roll on the floor with a woolen blanket covered over him.
> Separate burnt clothes from the body carefully. If necessary cut apart the clothes.
> Blisters should not be punctured.
> Wash with cold water if it is a minor injury; apply sodium bicarbonate to the affected part.
$>$ Apply ointment to the wound until it is filled.
> Give hot beverages if the victim is exhausted.

## Unconsciousness:

Unconsciousness is a state where a person loses his consciousness. It is the result of non-functioning of the cerebrum. The victim may look as if he is asleep but his body will not execute to any movement.

Reason for Unconsciousness: A person becomes unconscious due to poisoning, excess alcohol intake, major head injury, life threatening injury, excessive bleeding and continuous exposure to sun. Epilepsy may also lead to unconsciousness.

## Symptoms:

> Face may turn red, pale or bluish as per the cause.
> Fluctuation in breathing.
> Fluctuation in pulse rate.

## Management:

> Consult doctor immediately.
> The victim should be laid down in supine laying position.
$>$ Head should be held high if the face turns red.
> Tilt head sideways if the victim is vomiting.
> Tilt head backward to keep airway open when face turns pale. His palm and feet are to be rubbed so as to produce heat.
$>$ Provide artificial breathing if face turns bluish.
> Ascertain fresh air to the victim.
$>$ The dress should be loosened if it is very tight.
> When the students become unconscious due to hunger or tiredness it is advisable to make him lie in supine position and lift both his legs so as to facilitate blood flow to heart. If the victim does not respond to this, he should be transported to the nearby hospital.

## Poisoning :

Food may enter the body by means of food, air, or injections and sometimes due to direct consumption. A bite by poisonous snake, scorpion, honey bee, spider, and affected dog is also considered poisoning.

## Management :

The intensity of poison can be reduced by making the victim vomit. Patient should be vomited either by inserting his own finger into his mouth or by consuming lukewarm salt water.

The spreading of concentrated poison to other parts of the body can be delayed by consuming enough water.

Self induced vomiting should be avoided during the consumption of acids, alkaline. This is because there will be burns in the mouth and lip region. Take the victim to the doctor as early as possible.

## Understand :

Consult elders of your town and collect information on remedial measures for accidents that happened in the past.

## EXERCISES

## I. Fill in the blanks with suitable words.

1. By drinking sufficient $\qquad$ one can reduce the intensity of poison in the body.
2. Victim should not $\qquad$ when caught with fire.
3. Excess consumption of alcohol will lead to $\qquad$ .
4. The unconscious person should be laid down in _ position.
II. Answer the following questions in one sentence each.
5. Mention poisonous things?
6. What do you mean by unconsciousness?

## III. True or false.

1. Tilt the head of the victim sideways if vomiting.
2. Provide artificial breathing if the face of the victim turns bluish.
3. Blisters due to burns should be punctured.
4. Poison does not enter the body by means of respiration.

## IV. Activity.

1. List the materials essential in a first aid kit and try to obtain them at home.
2. Discuss with your friends regarding measures to be taken to induce confidence in accidentally poison consumed victim.

## NATIONAL INTEGRATION

## Chapter-12

## NATIONAL FLAG AND NATIONAL ANTHEM

## Following aspects are learnt in this chapter:

* Factors promoting National integration.
- History, Importance and code of conduct regarding National Flag and National Anthem.
( Citizenship and Fundamental rights.

Every Nation possesses its own National flag. Indian National Flag was designed by Pingaly Venkayya and got approval from constituent assembly on 22nd July 1947. Since then, the tri color flag is considered the National flag of India.


## History of National Flag:

The first war of Indian independence (Sepoy Mutiny) in 1857 highly encouraged the concept of independence among the Indians.

The first National Flag of India was hoisted on 7th of August 1906, at Parsi Bagan Chowk, Kolkata. The center of this flag contained the depiction of 'Vande Mataram'. In 1907 'Madam Kama' and other revolutionaries hoisted the National flag designed by Sachindra Prasad Bose and Sukumar Mitra.

## Understand :

Venkayya (of present Andhra Pradesh) published about thirty flag models in the book named 'Manajatakamu' in 1916.
Dr. Annie Besant and Lokmanya Tilak hoisted the third National flag during the Home rule movement when our political struggle had taken a definite form.

During the session of the All India Congress Committee at Vijayawada (earlier Bezwada) in 1921 Venkayya presented a flag consisting of green, red stripes with a spinning wheel to Mahathma Gandhiji. It was made up of two colours-red and green with a spinning wheel. Gandhiji suggested the addition of white colour and thus the fourth National flag was ready.

The year 1931 was unique in the history of National flag. The importance of possessing a flag for the Nation was strongly justified in the meeting of All India Congress committee held this year. This led to the formation of a committee to outline a flag.

It was decided to include three colours in the flag with a spinning wheel at its center in another meeting of All India Congress committee convened in 1931. The flag consisted of three stripes with equal dimensions. The top strip was saffron, middle strip was white and the bottom strip was green coloured. This flag was formally approved as the 'National flag' by the Congress committee.

The present National flag retained initial tri colours with inclusion of Dharma Chakra (wheel) of King Ashoka at its center instead of the spinning wheel. The flag consisting three stripes of saffron, white and green with Ashoka Chakra at its center was approved by the Constituent Assembly as the National flag of independent India on 22nd July 1947.

## Know :

Saffron- represents sacrifice, bravery and pride
White- represents peace, truth and purity
Green- represents prosperity, honesty and vigor
Dharma Chakra- symbolises progress
National Anthem and its history: Jana Gana Mana is our National Anthem. This was composed in Bengali language by Gurudev Ravindranath Tagore in 1911. The song consists five stanzas. The first stanza of this song was chosen as the National anthem. The formal National anthem consists of the selected stanza followed by 'Jaya he.. Jaya he..' chorus line at the end.

Jana Gana Mana was sung at the historical mid-night session of drafting committee held on August 14, 1947. "Jana Gana Mana" was officially adopted by the Constituent Assembly as the Indian national anthem on 24 January 1950.

The National anthem has to be sung in 48 to 52 seconds as per the specified rule. Disrespecting National Anthem or interfering in its singing is a punishable offence.
Citizenship: Citizenship is obtained in order to be associated with the Government and to get recognized as a member of a Na tion. People can enjoy their rights and deliver the duties of a Na tion by means of citizenship.

Indian citizenship can be obtained by five means as per Citizenship act of 1955.

1. By birth : All those individuals born in India after January 26, 1950 obtain Indian citizenship by means of birth. Citizenship is also given to all those born prior to 26th January 1950 and settled in India.
2. By blood relation/ heredity: A child born abroad to Indian citizens after January 26, 1950 can obtain Indian citizenship.
3. By registration: Provision has been made in the law for people of certain sections by registering themselves for Indian citizenship. However, they will have to seek for citizenship to the President of India with certain documents.
4. By natural means: Individuals marrying Indian citizens can obtain Indian citizenship by submitting requisition. This provision enables foreign citizens to obtain Indian citizenship.
5. By inclusion: Whenever a new region is included within the territory of India, the people of that region obtain Indian citizenship.

## Citizen Rights:

The citizens of India are provided with fundamental rights and duties. They provide us protection against injustice and opportunity to serve the nation.

## What are Rights ?

The services provided to citizens are called rights. They may be "Natural rights" (Eg.: right to live and right to self defence) or "Legal rights" (Eg.: Right to equality, educational rights). Rights are the basis for constitutional legacy.

## Fundamental Rights:

Fundamental rights specified in the Indian constitution are extended to citizens in order to safe guard their legal interest.


## EXERCISES

I. Answer the following questions in one sentences each.

1. Who composed our National Anthem?
2. In which language is our National Anthem written?
3. What is the time limit to sing the National Anthem?
4. What is Citizenship?
5. What are Rights?
6. How many colours does our National flag consist?
7. What are Rights?
8. How many colors does our National flag have?
II. Answer the following questions in one or two sentences each.
9. Explain the history of our National Anthem.
10. What are the procedures to get citizenship in India?
11. What are the Fundamental Rights?
III. Match the list A with B.
' $A$ '
'B'
12. Dec 09th 1946 a. National Anthem written in Bengali
13. July 22th 1947
b. Sung ‘Jana Gana Mana’
14. Aug 14th 1947
c. Formation of administrativecommittee
15. Jan 24thb 1950
d. Acceptance of nation Anthem
16. 1911
e. Republic day
f. Independence day

## IV. Activity.

List out the Rules to be followed when hoisting and retain of National Flag.

