Vishvas®

Mainstreaming

HEALTH AND PHYSICAL EDUCATION

(As per the Guidelines and Methodology for Administering HPE issued by CBSE w.e.f. 2018-2019)

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FOUR STRANDS

STRAND 1
Games/Sports
At least one of following:
A) Athletics or Swimming
B) Team Games
C) Individual Games
D) Adventure Sports

STRAND 2
Health and Fitness

STRAND 3
SEWA
(Social Empowerment through work education and action)

STRAND 4
Health and Activity Card (For Record)

For IX to XII Classes

Preface

It gives me an immense pleasure to introduce the book on **"Mainstreaming Health and Physical Education"** as per the latest Circular of CBSE for administering HPE for the students of Class IX to XII. The new format of HPE envisions that each student will undertake activities categorized under **Four Strands. This subject is compulsorily implemented by CBSE for classes IX to XII w.e.f. 2018–19.**

I. Strand I – Games/Sports

 Any one or more games or activity out of Athletics/ Swimming, Team Games, Individual Games and Adventure Sports must be taken up by each student as an individual, or as a class team or as a school team.

ii. Strand II – Health and Fitness

Exemplar Activities (illustrative only): It should be ensured that all students participate in Mass P.T. / Yoga. Any other activity, which leads to a connection of the physical body with the mind and with the inner workings of the body, and also leads to an improvement in overall health and fitness, can also be taken up, such as Aerobics, Dance, Calisthenics, Jogging, Cross Country Run, working out using weights/gym equipment, Tai-Chi etc. Children who are ready for it, may in addition, also participate in learning the nuances of meditation and its impact on stress management.

iii. Strand III – SEWA

(Social Empowerment through Work Education and Action) : All students of classes IX to XII (for XII, only till end of the first semester/term) will participate in SEWA program around the year.

iv. Strand IV – Health & Activity Card (for Record)

Includes Maintaining Health and Activity Record : The schools will maintain record of children. It is for encouraging the child to attain health and wellness.

This book is introduced to make pupils physically, mentally and emotionally fit and to develop such personal and social qualities that will help them to be good human beings. The book contains details of skills, drills and practice activities (illustrative) of the games / sports as mentioned in the Strand–I & II (37 games) and Strand–III includes 17 Projects and Activities according to the syllabus. **All games are attached with QR code for video of the particular game/sport.**

The **"Activity & Project Record Book"** is available separately, which includes solved Projects/Activities, Proforma for SEWA Self Appraisal Form, Health and Activity Record Form for the Final Assessment for the Students.

The publisher express sincere thanks to all the teachers associated. And, special thanks are extended to **Mr. Joginder Pal Singh**, (Ex-coach, Athletic, Sports Dept., Chandigarh Administration) and **Mr. Bhalinder Singh Sidhu**, NIS, Patiala Qualified (Hockey) , who guided us in technical points in games.

We are pleased to convey our deep sense of gratitude to all associated with the completion and publication of this book for their untiring efforts to bring out this book well in time.

For any suggestions for further improvement in the book, feel free to communicate at **vishvasbooks@yahoo.co.in**.

Publisher

Contents

Circular

Principals/ Heads of the Institutions

All CBSE affiliated Schools

Sub: Mainstreaming Health and Physical Education in Schools – reg.

Health is often a state of physical, mental, emotional, social and spiritual well-being and not merely the absence of disease or infirmity. CBSE has decided to mainstream Health and Physical Education for classes IX to XII with the aim of holistic development of the child, leading to a well-balanced individual in all walks of life.

The aim of Mainstreaming Health and Physical Education is also to enable the students to attain an optimum state of health. Therefore, CBSE aims to provide a focussed curriculum for Health and Physical Education imbued with Life Skills in all its affiliated schools.

CBSE has planned to introduce a streamlined and well-designed Health and Physical Education Program to mainstream health and physical education in schools especially for students of class IX-XII w.e.f. session 2018-19. This program will be compulsory for all affiliated schools of CBSE.

Keeping the above in view, the schools are advised that while preparing time-table for session 2018-19, one period every day may be reserved for Health and Physical Education especially for class IX to XII from session 2018-19 onwards. The transactional strategies, detailed guidelines and methodology for administering HPE (Health and Physical Education) to students will be available on CBSE website shortly.

Circular

Principals/Head of the Institutions

Sub: Mainstreaming Health and Physical Education in Schools - reg.

Please refer to CBSE circular no. Acad-10/2018 dated 21/03/2018 regarding Mainstreaming Health and Physical Education in Schools, wherein schools were advised to reserve one period every day for Health and Physical Education especially for class IX to XII from session 2018-2019 onwards.

The transactional strategies, detailed guidelines and methodology for administering HPE (Health and Physical Education) to students is now available on CBSE website. However, the format of 'Health and Activity Card' will be available on CBSE website shortly.

FAQs: Mainstreaming Health and Physical Education

S.N.	Question	Answer
1.	Target Group for HPE	All students of class IX-XII studying in CBSE affiliated schools w.e.f session 2018-19 onwards.
2.	Time required	One period everyday for each class (IX-XII)
3.	Maximum Marks	100 Marks
4.	Theory/Practical portion	All practical. No theory
5.	Will the marks of HPE be added in final/ board exams?	No. However, participation in HPE and assessment will be mandatory to be eligible to appear in Board Exams of class X & XII. (All evidences and Portfolios regarding SEWA need to be in the school as they can be monitored by CBSE at any time)
6.	Which co-scholastic areas are subsumed in HPE?	The following co-scholastic areas are subsumed in HPE for class IX-XII: **Class IX-X** i. Work Education (500) ii. Health and Physical Education (506) **Class XI-XII** i. Work Experience (500) ii. Physical and Health Education (502) **Hence, there will be no separate grading for the above mentioned co-scholastic areas from session 2018-19 onwards. The periods allocated for the above co-scholastic areas may be used for HPE. Further details will be given subsequently.**
7.	Is HPE different from Physical Education (048)?	Yes. The HPE is different from academic elective subject 'Physical Education'(048) offered for class XI and XII
8.	Will the academic elective subject 'Physical Education' (code 048) for class XI & XII continue?	The academic elective subject Physical Education (code 048) will continue as choice/ optional subject for students of class XI & XII
9.	Is only PE/ Sports Teacher eligible for implementing/ evaluating and record keeping of HPE?	Every teacher including class teacher, teaching in CBSE affiliated school is eligible for implementing/ evaluating and record keeping of HPE.
10.	What is the format for record keeping of 'Health and Activity Record'?	The format of 'Health and Activity Card' (Strand 4) will be uploaded on CBSE website shortly.
11.	Will any external examiner/ observer be appointed for HPE?	No. The whole process of HPE will be school-based, implemented & evaluated by the school teachers. However, marks/ grades of HPE will be submitted online on CBSE website.
12.	Will the CBSE Annual Sports and Games Competitions continue to be organized?	Organizing CBSE Sports and Games Competitions will be continued as per existing practice.

Introduction/Preamble

Curriculum reform is a global issue and drives education policy directives around the world. The broad framework is usually provided by a national apex body, the narrower focus is around the syllabi based on the disciplines and the learning outcomes expected at age appropriate levels.

1.1 RATIONALE

1.1.1 Health and Physical Education is concerned with total health of the learner and the community. Besides physical health, it includes mental and emotional health of the learners. Health is often a state of physical, mental, emotional, social and spiritual well-being and not merely the absence of disease or infirmity.

1.1.2 The aim of Mainstreaming Health and Physical Education is to enable the student to attain an optimum state of health, by incorporating each of the aforementioned aspects.

1.1.3 In this respect, it is a truism to say that the practice of healthy living will serve as the foundation for Physical Education. It is envisaged that any effort to promote aesthetic values at the school level will include a natural esteem for physical well-being. The mastery of the body, its powers and qualities, requires knowledge, methodical training and exercise. The skills and capacities need to be developed, the muscles and nerves trained, the senses cultivated and hygienic and proper dietary habits inculcated for this purpose.

1.1.4 Therefore, provision has to be made much more systematically than before, in the school curriculum for Health and Physical Education imbued with Life Skills.

1.1.5 Research has demonstrated that there is a positive correlation between brain development and exercise which also has an impact on cognitive development thus helping to improve academic grades.

1.1.6 A comprehensive view of Health and Physical Education includes and encompasses the three areas of Health Education, Physical Education and Yoga as integral to achieving holistic health (physical, mental, intellectual, emotional, social and spiritual). Given the interdisciplinary nature of this subject, it needs to be transacted in innovative ways across the curriculum.

1.1.7 The ubiquitous digital presence can be an added resource for the student, teacher educator and the teacher. It provides endless possibilities of resorting to online resources to add value to PE.

1.1.8 At the Secondary level acquisition of the habits of healthy living and participation in games and sports and athletics for neuromuscular coordination and physical fitness are the aims which should be taken care of while developing any syllabus of Health and Physical Education.

1.1.9 While at the Senior Secondary level, through the integrated PE approach,

students will acquire the knowledge, skills, right attitudes and values towards the pursuit of a lifelong physically active and healthy lifestyle.

With these aims in mind, the overall and specific objectives for a HPE curriculum are outlined below:

1.2 OVERALL OBJECTIVES OF HEALTH AND PHYSICAL EDUCATION:

1.2.1 To develop awareness regarding the importance of physical fitness in individual and social life including Life Skills.

1.2.2 To bring the overall awareness of values with regard to personal health and fitness, and to inculcate among students the desired habits and attitudes towards health to raise their health status.*

1.2.3 To make the pupils physically, mentally and emotionally fit and to develop such personal and social qualities that will help them to be good human beings.*

1.2.4 To take action individually and collectively to protect and promote (i) own health (ii) health of family members: and (iii) health of the surrounding community and seeking help when required from available community resources.*

1.2.5 To develop interest in exercise, sports and games for self-satisfaction and make it a part of life;

1.2.6 To enable an individual to enhance inner qualities-self-mastery, discipline, courage, confidence and efficiency.*

1.2.7 To enable an individual to display a sense of responsibility, patriotism, self-sacrifice and service to the community *

1.2.8 To develop awareness of the importance of self-defence.*

1.2.9 To create awareness among children about rules of safety in appropriate hazardous situations to avoid accidents and injuries. To acquaint them with first-aid

Values Integrated across HPE

measures about common sickness and injuries.*

1.2.10 To help children learn correct postural habits in standing, walking, running, sitting and other basic movements so as to avoid postural defects and physical deformities.*

1.2.11 To help children grow as responsible citizens by inculcating in them certain social and moral values through games, sports, Red Cross, Scouts and Guides etc.*

1.2.12 To inculcate values and skills in children in order to promote self-control, concentration, peace and relaxation to avoid the ill effects of stress, strain and fatigue of routine everyday life. *

1.2.13 To address the physical, psycho-social needs of CWSN (Children with Special Needs) in an integrated fashion. *

1.2.14 To seek in instilling self-worth thus helping students to become confident, assertive, emotionally stable, independent and self-controlled. *

1.2.15 To help release of emotional stress, anxiety and tension, leading to a reduced risk of depression. *

1.2.16 To help strengthen peer relationships, social bonding, buddy mentorship and team camaraderie.

1.2.17 To develop more positive attitude towards challenges, winning and losing, thus preparing students for life and for the workplace.*

1.3 MAINSTREAMING HPE

1.3.1 With the above objectives in mind, the CBSE in consultation with MHRD and Ministry of Sports, Govt. of India has attempted to integrate and mainstream Health and Physical Education across the secondary and senior secondary levels. This is to ensure that the Physical

Education component which will continue to be assessed internally, is taken up as a cross-curricular, interdisciplinary discipline across the four strands.

1.3.2 Mainstreaming would require the coming together of the Class Teacher, PE teacher and teachers of other disciplines.

1.3.3 The mandatory nature of this discipline needs all students to participate in an innovative way through the strands detailed hereafter.

1.3.4 **It will be mandatory for the school to upload a report of work accomplished across the strands of grade X and XII in the prescribed manner, for enabling students to sit for the Board exam.**

1.3.5 The stipulation is to ensure all schools take this aspect seriously so as to ensure lasting and lifelong benefits for their students.

1.3.6 **The following subjects of internal assessment are being subsumed in Health and Physical Education from session 2018-19 onwards:**

Class IX-X

  i. Work Education (500)

  ii. Health and Physical Education (506)

Class XI-XII

  i. Work Experience (500)

  ii. Physical and Health Education (502)

As the above subjects of internal assessment are being subsumed in Health and Physical Education, so the schools should not allocate any period to these above-mentioned subjects from session 2018-19 onwards. The same periods should be allocated to Health and Physical Education.

Four Strands

(Issued by CBSE)

2.1 INTRODUCTION

2.1.1 The new format of HPE envisions that each student will undertake activities categorized under four strands.

2.1.2 The work education aspect of the syllabus is subsumed under this format, hence there will be no need to take it up as a separate subject.

2.1.3 This format is to be compulsorily implemented for classes IX, X, XI and first half of the year for class XII

2.1.4 **This is an essential requirement for writing the Board examination.**

2.1.5 Unless schools undertake HPE seriously and are ready with records of all strands as well as Health and Activity Cards for all students, they will not be allowed to register their candidates for Board examinations.

2.1.6 All schools need to fill in the HPE School Report for the ongoing session before registering their candidates in classes IX and XI. The report should reflect the activities undertaken under each strand separately for each class right from class IX to XII. The format of the HPE School Report is given in the Annexure.

2.1.7 No theory classes will be taken as a part of this format.

2.1.8 The class teacher shall be responsible for ensuring that each child participates in all strands

2.1.9 The class teacher shall also guide and facilitate strand 3 and strand 4.

2.1.10 In the absence of a sports/games teacher, the class teacher may facilitate strand 1 and 2 also and ensure that all children participate in the games/sports of their choice.

2.1.11 Internal assessment is to be jointly done by the class teacher and the sports/games teacher.

2.1.12 From Strand 1, at least one activity is to be taken up by each student as a class or as an individual. The choice will be left to the students and the class teacher will facilitate each child to decide, based upon the sports facilities available at the school. Schools are encouraged to provide more options by adding to the infrastructure each year.

2.1.13 Children are free to choose more than one activity from strand 1, as long as the school sports infrastructure supports it.

2.1.14 Children are also free to change their choices during the course of a year.

2.1.15 A class as a whole could be encouraged to take up any one team game and/or invasion game, by delineating the role of each student of the class. Roles should be decided by students among themselves. Roles could include player, captain, umpire, cheer leaders, commentators, event manager, coach, organizers, reporters for school magazines, etc.

2.1.16 The Board will be inspecting records for Strand 1 and 2 such as attendance and participation by all students. Evidences such as Portfolios, Journals, Essays, Video recordings etc. in case of SEWA may be kept ready for scrutiny by the CBSE at any time during the year.

2.1.17 Schools are encouraged to place the activities they undertake under various strands on their own website under the 'Sports Corner' which should be updated at regular intervals.

STRAND 1
GAMES/SPORTS – At least one of following:
A) Athletics or Swimming
B) Team Games
C) Individual Games
D) Adventure Sports

STRAND 2
Health and
Fitness

FOUR STRANDS

STRAND 3
SEWA

STRAND 4
Health & Activity Card
(for record)
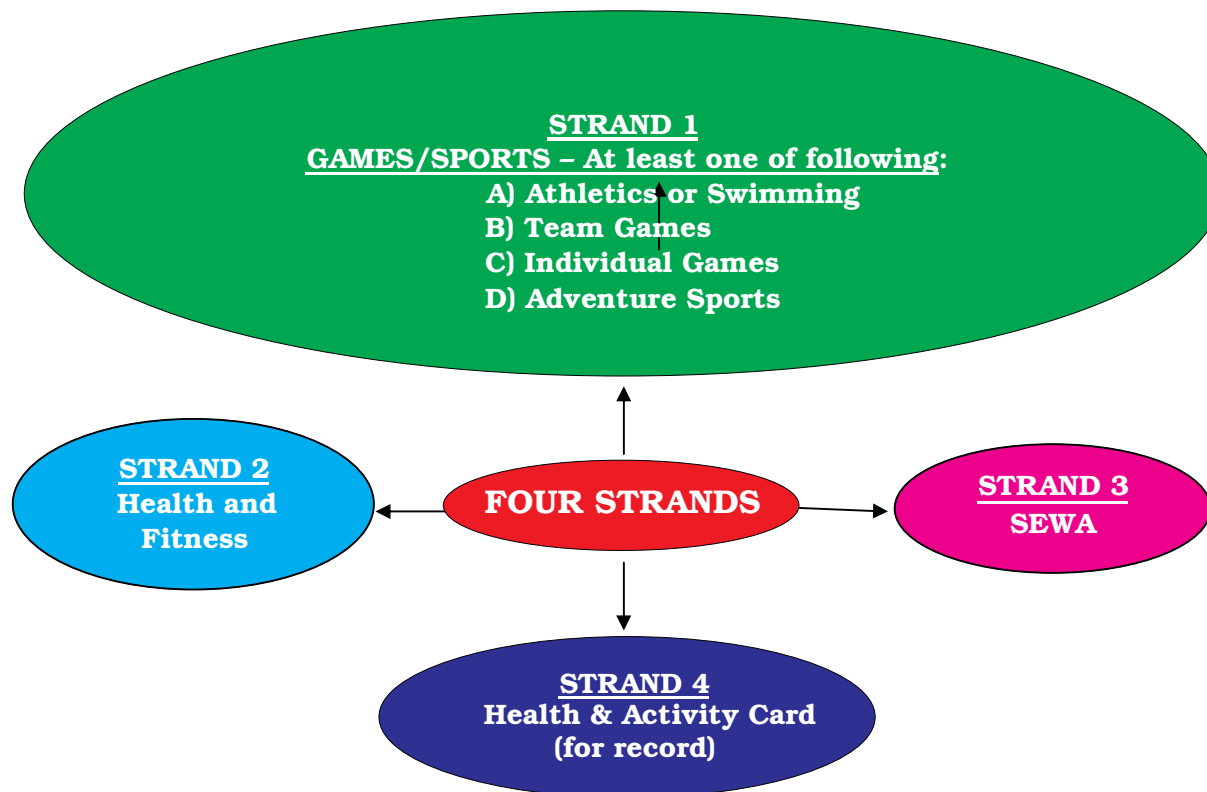
2.2 THE OBJECTIVES

Regular, high quality PE programs should also provide all students with opportunities to develop:

2.2.1 An inclination towards, and strong motivation for lifelong maintenance of health and fitness *

2.2.2 Cardiovascular fitness, muscular endurance, muscular strength and flexibility to meet the demands of everyday life *

2.2.3 Agility, balance, coordination, reaction time, power and speed to be able to perform a wide range of daily tasks *

2.2.4 The techniques necessary to become a skillful performer and competitor in different sports and activities *

2.2.5 Such traits of character as self-mastery, discipline, courage, determination and confidence *

2.2.6 Good sportspersonship, fair play and ability to be an informed spectator *

2.2.7 An ability to perform in different activity – related roles such as attacker, defender, supporter, supported, referee, leader, captain *

*Values integrated across HPE

TABLE 1.1

DISTRIBUTION OF MARKS FOR INTERNAL ASSESSMENT

Strand	Marks	Periods (Approx)	Levels*

1. GAMES
   A) Athletics/ Swimming
   B) Team Games
   C) Individual Games/ Activity
   D) Adventure Sports
	50 marks	90 periods	**Upto 25 marks:** Learning
			
			26-40 marks: Proficiency
			
			41-50 marks: Advanced

2. Health and Fitness	25 Marks	50 periods	**Upto 12 marks:** Learning **13-20 marks**: Proficiency **21-25 marks**: Advanced
3. SEWA	25 Marks	50 periods	**Upto 12 marks:** Learning **13-20 marks**: Proficiency **21-25 marks**: Advanced
4. Health and Activity Card	No Marks	10 periods	—
Total	**100 Marks**	**200 Periods**	—

*The grades/levels obtained under the first three Strands will be reflected in the report cards.

Strand – 1
Games/Sports

(Issued by CBSE)

Any one or more games or activity out of Athletics/ Swimming, Team Games, Individual Games and Adventure Sports must be taken up by each student as an individual, or as a class team or as a school team.

3.1 ATHLETICS / SWIMMING

3.1.1 Example Activities (illustrative only):

Track and field events that require physical strength, speed/skill, such as, racing against own best timing and with others over different distances; relay races; marathons, cross country running, race walking, throwing for distance and aiming onto/at targets; jumping for height; jumping for distance; swimming against own best timing and with others, over different distances.

3.1.2 Inclusion:

Allow students to use standing starts or rolling starts if using a wheelchair. Use visual signs to start race so that students with hearing impairments can be involved. The students must find unique and creative ways to include CWSN who are their classmates. Though few of the strategies for inclusion have been outlined for some games in boxes attached below, if movement is not possible at all, then aided umpiring or aided cheering should be considered for CWSN. If some learning is possible, let the CWSN learn about the intricacies of the game. If they are interested in art work or music, let them create their own version of the game in art or music or any other form. Students are free to innovate their own mechanisms for inclusion under the guidance of their class teachers.

3.1.3 Life Skills Imbibed/ Acquired:

- Learning the techniques
- Learning about sports/games through other formats such as fine arts

3.1.4 Outcomes/ Values imbibed:

- Going further, higher, faster
- Being able to set and meet personal targets
- Being able to focus, concentrate and practice to improve
- A commitment to training and an ability to set and meet personal targets
- Learning as a team and from others

ATHLETICS

HISTORY

Athletics involve running, sprinting, throwing, jumping and walking. In general, athletics comprises of running events from 100 metre to 42.195 kilometre, cross country races, jumps (long jump, high jump, triple jump and pole vault) and throwing events like shot-put, discus, javelin and hammer. Then there are modified versions like hurdle races, sprints such as 100 and 200 metre races which requires speed and strength and thus have special significance.

The origin of athletics can be traced back to ancient Greece. Some historians say that it was a major event in the ancient Olympic Games and is believed to have started by 776 BC in Olympia which probably lasted for more than thousand years. On the other hand, some

historians opine that the religious ceremony that followed the Games is even older and might be even from the 13th century BC.

Known as the 'stade,' the single athletics event was a foot race which covered the length of the Athenian Olympic Stadium. During the Middle Ages, athletics became more diverse when the sons of noblemen were trained in running, jumping and wrestling. There were often athletics contests between rival nobilities.

The athletics event form the backbone of the modern Olympic Games and are governed by the member clubs of International Association of Athletics Federation.

The International Association of Athletics Federation (IAAF) was established in 1912. It develops the game's international standards, rules, competitions and regulates the sport internationally.

CONSTRUCTION MEASUREMENTS

Construction radius of curve (including the raised kerb on inside of track)	36.500m
Radius of measurement line (line of running) in lane1(0.30 m outside raised kerb)	36.800m
Length of each straight section	84.390m
Length of each bend on construction line (kerb line)	114.668m
Length of each bend along line of running	115.611m
Length of track on construction line (kerb line)	398.116m
Length of track along line of running	400.001m
Width of lanes (including 0.05m on outside)	1.220m
Length of Steeple chase lap along line of running where the water jump is inside the 400 m track	396.084m
With the exception of lane 1, all lanes are measured 0.20 m out from the outer edge of the inner line.	

ATHLETICS

Track Events

Short distance Races

100 m
200 m
400 m
110 m Hurdles
100 m Hurdles (W)
400 m Hurdles
4 × 100 m Relay
4 × 400 m Relay

Middle distance Races

800 m
1500 m

Long distance Races

5000 m
10,000 m
3000 m Steeple Chase
Marathon (42.195 km)
or 26 Miles 385 yards
Cross Country Race
20 kms. Race Walking
50 kms. Race Walking

Field Events

Jumping Events

Long Jump
High Jump
Triple Jump
Pole Vault

Throwing Events

Shot Put
Discus Throw
Javelin Throw
Hammer Throw

Combined Events

Heptathlon (For Women)

1st Day
100 m Hurdles
Shot Put
Long Jump
High Jump

2nd Day
200 m
Javelin Throw
800 m

Decathlon (For Men)

1st Day
100 m
Shot Put
Long Jump
High Jump
400 m

2nd Day
110 m Hurdles
Discus Throw
Pole Vault
Javelin Throw
1500 m

LIST OF EQUIPMENTS

TRACK EVENTS

1. Stop watches
2. Clip Board
3. Whistles
4. Flags :
   White flags, Red flags
5. Finishing post
6. Yellow Flags
7. Public Address System :
   One set
8. Lime according to need
9. Judges Stand

FIELD EVENTS

1. Steel Tapes
2. Clip Board
3. Nails
4. Flags :
   White Flag, Red Flag
5. Sand leveller

400 METRES ATHLETICS TRACK WITH ALL ITS SPECIFICATIONS

Scan & View

Start
4×400m

Start
400m, 400 mH
4×100m

400 mH
1st hurdle

Steeplechase
2nd hurdle

400 mH
2nd hurdle

Javelin throw

400 mH
1st hurdle

Start
800 m

**Discus &
Hammer throw**

Steeplechase
1st hurdle

R36,500m

Group start
2000 m
10,000 m
zone blue
4×400m 2nd athletes

Breakingline
800 m
4 × 400 GroupStart
2000m
10,000m

Start
1500m

400 mH
2nd hurdle

400 mH
3rd hurdle

Take-over
zone yellow
Acceleration
mark blue
4×100 m
2nd athletes
(Middle
flake over zone
lane 1 identical to
1500m start)

ZE lane 1
and relay not
run in lanes

M2

Start
400m
800m
4×100m
4×400m

Start Finish line
2000m relays line line 2000m
Steeple not run 10,000
chase in lanes

ZS

400mH
3rd hurdle

Start
3000m Steeplechase

400mH
4th
hurdle

Start
200m
Take-over
zone yellow
Acceleration
mark blue
4×100 m
3rd athletes
(Middle
flake over zone
identical to
200m start)

400mH
4th hurdle

400mH Steeplechase
5th 3rd hurdle
hurdle

400mH
10th hurdle

Steeplechase
5th hurdle

Triple & long jump

Group start
1000m
3000m
5000m

Start
1000m
3000m
5000m

400mH
5th
hurdle

Start
200m

400mH
6th
hurdle

**High
Jump**

M1

13,863 m

15,101 m

16,000m

4th hurdle :
water jump

R 16,000m

R 36,500m

42,55525
(47,2886g on)

Shot put

Take-over
zone yellow
Acceleration
mark blue
4×100m
4th athletes

400mH
9th hurdle

Break point
Group start
1000m
3000m
5000m

Start
100m
100mH

Start
110mH

47,4475
(52,7194g on)

1 2 3 4 5 6 7 8

**400mH
7th
hurdle**

Hurdle
positions
Blue : 110m
Yellow : 100m

400mH
8th hurdle

400mH
6th hurdle

400 mH
7th hurdle

400m STANDARD TRACK

KEY	
ST	Start
ZE	End of take-over zone (10m after ZM)
ZM	Middle of take-over zone
ZS	Start of take-over zone (10m before ZM)
ZA	Start of acceleration zone (10m before ZS, 4 x 100m)

TRACK MARKINGS

Width of all marks:0.05m

Colour	Symbol	Size m,Position	Stage	Event	Marking Plan Area
White		Full track width 1.17 (full lane width)	Finish	All events	A
			ST	400m,4x100m	A
			ST	100m,110mH	B
			ST	200m=ZM4x100m3rd athletes	C
		Curve (full track width)	ST	2000m,10,000m	A
			ST	1mile	A
			ST	2000mSC	A
			ST	1000,3000m,5000m	C
			ST	3000mSC	C
			ST	1500m	D
		Lanes 5 to 8	ST	Groupstart:2000m,10,000m	A
			ST	Groupstarts:1000m,3000m,5000m,	C
		0.40 in the middle	ZM	4x100 m 2nd and 4th athletes	B,D
White with blue*inset		1.17 (full lane width), 0.40 in the middle	ST	4x400mRelay	A
White with green inset		1.17 (full lane width), 0.40 in the middle	ST	800m=ZM4x400m2nd athletes	A
Blue*		0.80 in the middle 10m after finish line, parallel to finish line in lanes 2 to 5	ZE	For Relay races or parts of races not run in lanes e.g.4x400m 3rd and 4th athletes	A
		10m before finish line in lanes 2 to 8	ZS		
		0.60 in the middle	ZA	4 x 100m 2nd, 3rd and 4th athletes	B, C, D
		0.80 from inner line, hook in 45°,outside 0.15	ZE	4 x 400m 2nd athletes	A
		0.80 from inner line, hook in 45°,outside 0.15	ZS	4 x 400 m 2nd athletes	A
Yellow		1.10 from inner line, hook in 45°,outside 0.15	ZE	4x100m 2nd, 3rd and 4th athletes	B, C, D
Yellow		1.10 from inner line, hook in 45°,outside 0.15	ZS	4x100 m 2nd, 3rd and 4th athletes	B, C, D
Green		0.05 x 0.05 on the line between lanes 4 and 5	Break point	3000m, 5000m group start	B
		Curve, lanes 2 to 8	Break line	800m, 4 x 400m 2nd athletes	D

* For blue coloured tracks, red should be used

HURDLE POSITIONS

Colour	Symbol	Size m, Position	Event	Number of Hurdles	Distance from Start Line to First Hurdles m	Distance between Hurdles m	Distance from Last Hurdles to Finish Line m
Blue*		0.05 x 0.10 both sides	110 mH	10	13,72	9,14	14,02
Yellow		0.05 x 0.10 both sides	100 mH	10	13.00	8.50	10.50
Green		0.05 x 0.10 both sides	400 mH	10	45.00	35.00	40.00
Blue*		0.125 x 0.125 inside lane 1 and	Steeple chase	5**	positioned at approximately equal distances apart each lap		

For blue coloured tracks, red should be used **The 4th hurdle of each lap is the water jump

Activity–1
RUNNING

INTRODUCTION

Races over short distances are called sprints. They are among the oldest running competitions in the world. Sprinting requires athletes to begin from a stationary position and reach and sustain their quickest possible running speed. Sprint races take place over distances of 100, 200 and 400 metres. Indoor sprints take place over 60 metres. The man and woman who run the fastest time over 100m is often named the fastest man/woman in the world'.

At competency level students should learn and practice to improve their running technique so that they are able to run efficiently over short distances. They should be able to start a race correctly and be able to run at their maximum speed over short and longer distances.

At proficiency level students should be able to run over different distances with high levels of proficiency, be able to start races appropriately and take part in relay events. They should be committed to training and regular practice to help them increase cardio vascular efficiency, muscle strength and endurance.

RULES OF RUNNING

- Any runner found guilty of obstructing the path of another runner is disqualified.
- Sprinters are not permitted to run inside the inner curve of the track.
- Any sprinter with a false start even once is disqualified.
- Competitors are allowed to run with spiked shoes.
- No points are awarded if the sprinter fails to finish the race.
- The time is recorded to 1/100th of a second in photo finish.
- Time is recorded to 1/10th of a second. (Hand time watch)

HISTORY OF RUNNING

The original Ancient Olympic Games held in Olympia, Greece had just one event - the 'stadion' race. This was a simple race from one end of the stadium to the other. It was a race over a distance of about 200 meters. Sprint races have been included in all Olympic Games from 1896. Woman took part in sprinting events from 1928. Now sprinting events for men and women include individual and relay events and sprints over hurdles.

FACTS ABOUT SPRINTS

- It is only possible to maintain near maximum speed for not more than 30 seconds.
- The winner of a sprinting event is the athlete whose torso reaches the closest edge of the finish line first.
- Usain Bolt is currently the world's fastest man, setting a world record for the 100m of 9.58 seconds.
- Abdul Najeeb Qureshi, an Indian sprinter from Hyderabad, ran the 100m at the Commonwealth Games in 2010 in 10.30 seconds.

BASIC REQUIREMENTS/ EQUIPMENT

- An area that has a safe surface for running.
- Students should be appropriately dressed to participate safely in running events.
- A starting line and a finishing line.
- Cones or markers.
- Stop watches/measuring tapes.

STAGGER

The stagger is the distance given for each lane to compensate the excess distance which has increased due to the increase in radius of each line.

Formula for calculating staggers

[w(n–1)–10 cm] 2π and (with inner edge or kerb)

[w(n–1)] × 2π (without inner edge or kerb)

w–stands for width of lane, n–stands for number of lane for which stagger is calculated, π– is a constant and is equal to 22/7.
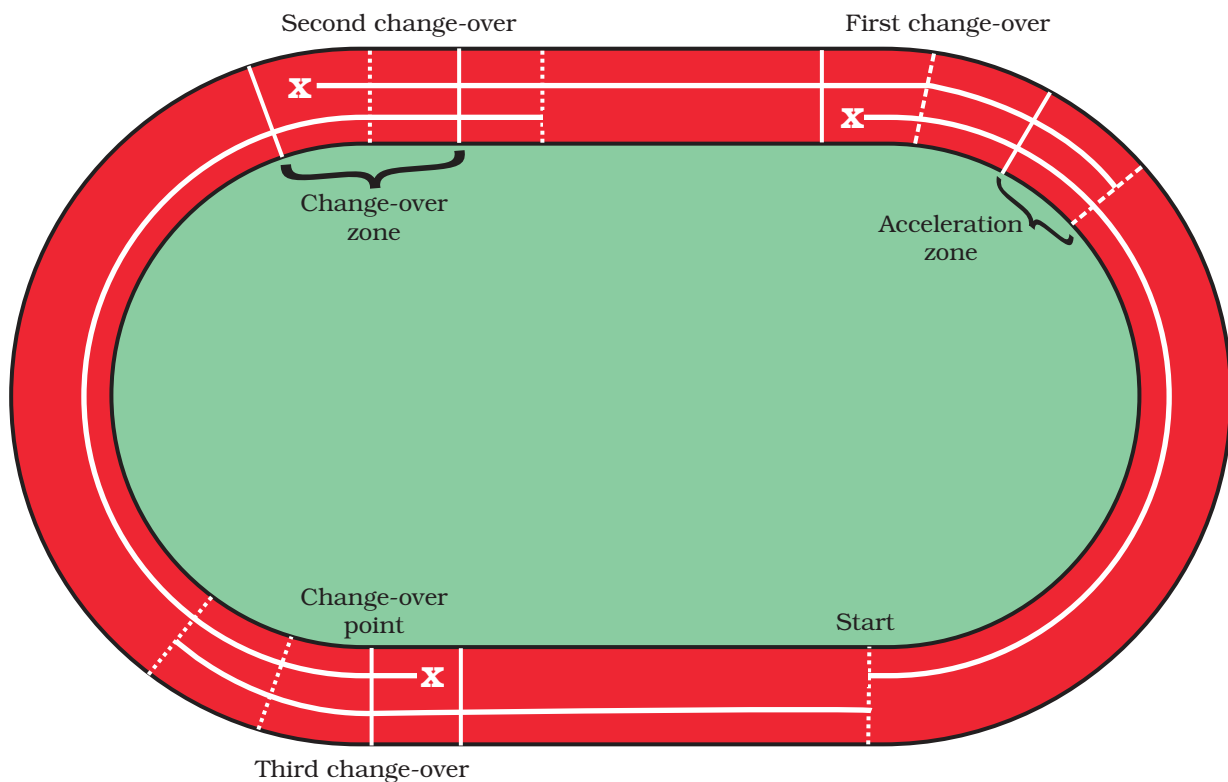
Outcome of the activities

The outcomes of participating in these activities will be
- a commitment to training
- willing to concentrate and practise to improve
- an ability to set and meet personal targets

Purpose of the activity

To participate in events that require students to go further, higher and faster.

RELAY RACES

Second change-over

First change-over

Change-over zone

Acceleration zone

Change-over point

Start

Third change-over

Who will run when?

- The most popular strategy of running a relay race is to run in this order: the second best runner runs first; the fastest runner runs last; the slowest runner third and the other runner second. Is this best for your team?
- What other strategies might you use to win the race? What strategies work best for your team?

Direction of running

10M

Acceleration zone
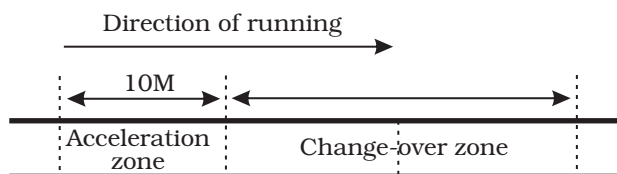
Change-over zone

Scan & View

Baton

Baton Changeover

- Blind exchange technique to be practiced (4 × 100 mts.) an visual exchange (4 × 400 mts.) relay.
- The baton must be exchanged when both runners are running at maximum speed.
- Use the downsweep method of passing the baton, passing it from right hand to left hand.
- Outgoing runner holds the hand high and flat to receive the baton.
- Incoming runner uses a downward sweeping movement to place the baton firmly into the receiver's hand.

Construction of Baton

The baton is made up of hollow metallic tube which shall not be more than 30 cm and not less than 28 cm in length. The circumference of the baton shall be from 12 cm to 13 cm. Each baton should weigh 50 gm. It should be bright coloured so that it is easily visible during the race.

Pick up Relay

Set objects like bean bags or cones, inside hoops or chalked circles, at regular intervals from the start line. Runner 1 collects each object, one at a time, returning them to the start line. The next runner takes one object at a time and sets them out again in their original position. Runner 3 collects them and so on until all runners have had their turn.

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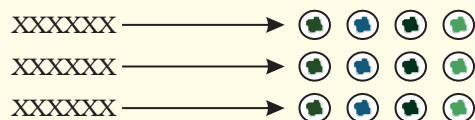
The Relay Race

Set up a running area with cones like this:

A ⟷ B ⟷ C ⟷ D
   15-20M   4–5M   10M
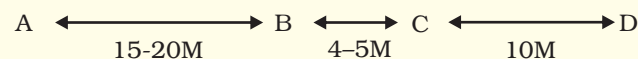
No. 1 starts at cone A; No. 2 starts at cone C. When No. 1 reaches cone B; No. 2 sprints off and attempts to reach cone D before being tagged by No. 1. Increase distance between B and C so that both athletes reach D at the same time.

Try this challenge

- In team of 10. Each athlete runs as far as they can in 10 seconds. Combine the 10 individual distances to produce a team score. Which team covered the farthest distance?

Make up your own challenges and have some fun

- Organise individual and relay races over different times and distance against classmates and other schools. Include fun events. For example include a dribbling race. Runners from one school or class dribble a ball as fast as they can over 50 metres. Runners from another school or class begin 3 seconds after the first runners and try to beat the front runner to the finish line.

TEAM GAMES

(Issued by CBSE)

3.2 TEAM GAMES

3.2.1 Examples of team games (illustrative only):

- **Invasion Games :** Basketball, Hockey, Kabaddi, Netball, Gallery, Football, Water Polo, Judo, Karate/Self Defence

- **Net Games :** Lawn Tennis, Table Tennis, Badminton, Squash, Volleyball

- **Inning Games :** Cricket, Kho-Kho, Rounders, Softball, Stoolball.

- **Target Games :** Archery, Boccia, Bowls, Golf.

3.2.2 Inclusion :
Use bright colours which will help the participation of students with vision impairment. The teacher has to modify each skill as per the percentage of impairment of the child. The students must find unique and creative ways to include CWSN who are their classmates. Though few of the strategies for inclusion have been outlined for some games in boxes attached below, if movement is not possible at all, then aided umpiring or aided cheering should be considered for CWSN. If some learning is possible, let the CWSN learn about the intricacies of the game. If they are interested in art work or music, let them create their own version of the game in art or music or any other form. Students are free to innovate their own mechanisms for inclusion under the guidance of their class teachers.

3.2.3 Life Skills Imbibed/ Acquired:

- Cooperating with others to use individual skills and team strategies to beat the opposition and win the game (Interpersonal and Intrapersonal Skills)

- Playing individually or with a partner and strategizing to beat the opponent and win the game (Critical Thinking, Decision Making)

- Using individual skills and team strategies to cooperate with others to score points and win the game (Creative and Critical Thinking)

- Competing individually or as a team to score the most points (as in archery) or the least number of points (as in golf) and win the game

- Understanding that including all is more important than winning (Intrapersonal Skills)

- Learning about sports/games through other formats such as fine arts (Creative Thinking)

3.2.4 Outcomes/ Values Imbibed:

- Team spirit and loyalty
- Sportsmanship
- Communicating with others
- Competing and winning fairly
- Fraternity

Activity–1

BASKETBALL

INTRODUCTION

Basketball is a fast, free-flowing, high-scoring invasion game. The rules allow all players to move freely around the court and occupy any position on the court. All players have an equal opportunity to score goals. The way in which the game is re-started after a point is scored or a rule infringement makes it a fast game with few breaks in play. Dribbling allows players the opportunity to create advantageous scoring opportunities.

At competency level students should learn and practice the basic skills of dribbling, sending, receiving and shooting. They should play simple games using one to one marking, learning how to keep possession by dribbling effectively and moving the ball accurately and speedily between players. As they progress skills should become more consistent and efficient and players should be introduced to set play situations and different strategies of play.

At proficiency level students should be able to attain high degree of proficiency at most individual skills and should understand the more complex strategies and systems of play demanded by the game such as zone marking, man to man or press defence.

RULES OF THE GAME

Basketball is played by teams of 5 players. It usually has a high target, or basket, in which goals are scored.

- Semi body contact game.
- No running while holding the ball.
- A player may dribble the ball to move from one position to another but only one dribble (continuous actions) is allowed.
- Any player can get the ball if it is in play and all players can occupy any part of the playing area.
- Any player may shoot from any part of the court.

HISTORY OF BASKETBALL

Basketball was invented in December 1891 by Jaims Naismith at Springfield College in Springfield, Massachusetts people wanted a game that could be played indoors and in a relatively small space. While trying to make lessons more appealing one of the teaching staff introduced various recreational games that included Football, American Football and Lacrosse but each game was difficult to play in the small space of the gymnasium. So the staff members decided to take different aspects of each of the games and combine them to produce a new game. The main features of the original game were: It was played indoors, with a ball that was easy to handle and difficult to conceal, no tackling was allowed. Players were not permitted to run with the ball. The target was placed above head height to make shooting a skillful action. The ball may be thrown in any direction with one or both hands. The ball may be batted in any direction with one or both hands (never with the fist). The ball must be held in or between the hands; the arms or body must not be used for holding it. The time shall be two 15-minute halves, with five minutes' rest in between.

FACTS ABOUT BASKETBALL
- The first game of Basketball was played in December 1891.
- The Basketball Federation of India was formed in 1950. Its first World Championship was played in 1950.
- The Indian national basketball team is known as the Young Cagers.
- The first Indian National Championship for men was conducted in 1934 in New Delhi. The Basketball Federation of India (BFI), which controls the game in India was formed in 1950.

BASIC REQUIREMENTS/ EQUIPMENT
- Any suitable indoor or outdoor space that can accommodate the group.
- A range of different size balls that bounce.
- Target(s) for shooting at or into to score points. Wherever possible these targets should be elevated and above head height.
- Bands or bibs that can be worn by different teams.

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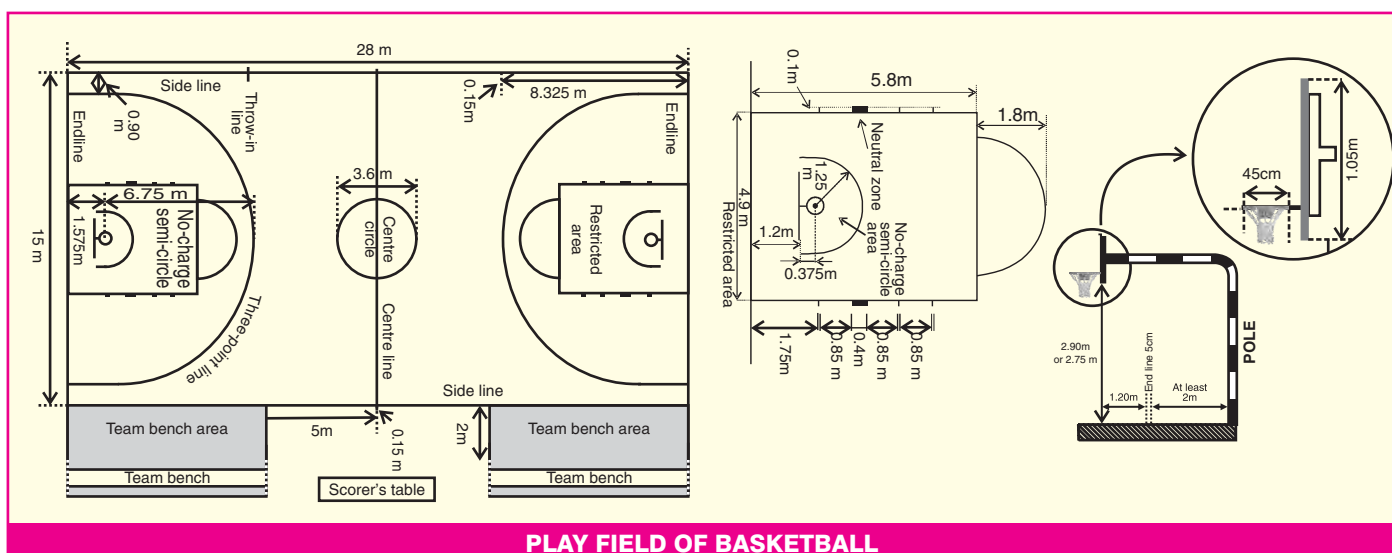
PLAY FIELD OF BASKETBALL

Purpose of the activity
To cooperate with others to use individual and team skills and strategies to invade the space of the opposition to score points and win the game.

Outcome of the activities
The outcome of participating in these activities will be:
- team spirit
- communication
- cooperation
- focus on winning

SKILLS

Passing the ball
- Check team mate is ready to receive.
- Keep the ball under control and be ready to pass.
- Look at receiver without making it obvious to the opposition.
- Pass in front of the receiver and to the target made by the receiver.
- Use short, quick passes (3.5 – 4 metres) as much as possible in a direct line between passer and receiver.
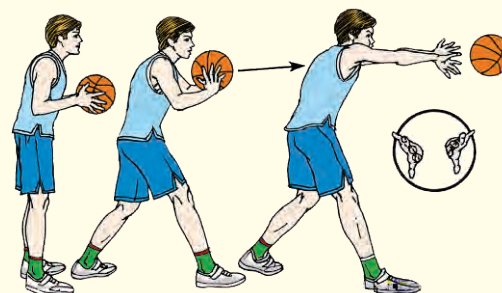
Here are some practices

Receiving the ball
- Move to receive the ball.
- Signal readiness for the ball using a clear signal to the passer with one or both hands.
- Prior to moving check team mate is ready to pass.
- Get free by moving towards the ball, away from the ball and then going towards the ball (feinting).
- Keep possession while dodging an opponent protecting the ball by keeping body between the ball and opponent.
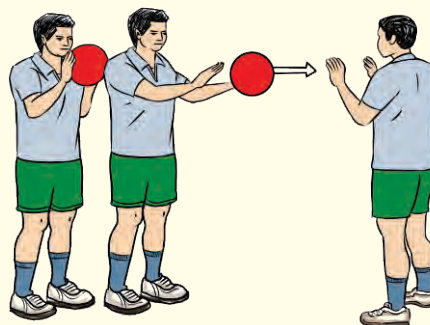
Dribbling : Passing a player
- Control the ball by spreading the fingers around it.
- Keep the hand on top of the ball to ensure it rebounds accurately back to the hand.
- The head should be up and the player should be aware of both opponents and team mates.
- The player should protect the ball by keeping his/her body between ball and opponent.
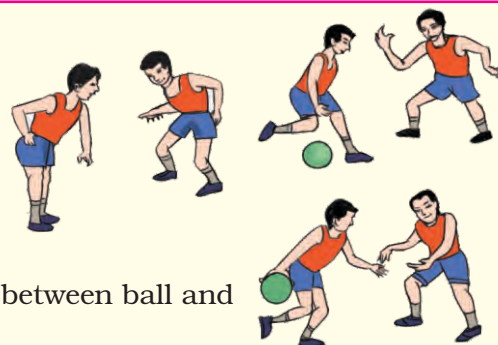
Scoring : Lay up shots

Technique (for right handed shot).
- At the end of the dribble, hold the ball with both hands.
- Look at the target.
- Ground the right foot and continue forward by stepping onto the left foot.
- Jump from the left foot upwards towards the basket.
- As the jump is made, take the ball up in front of the body and turn it so that the shooting hand is behind the ball.
- Release the ball with the shooting arm and hand at full stretch.
- Place the ball softly against the backboard so that it drops into the basket.
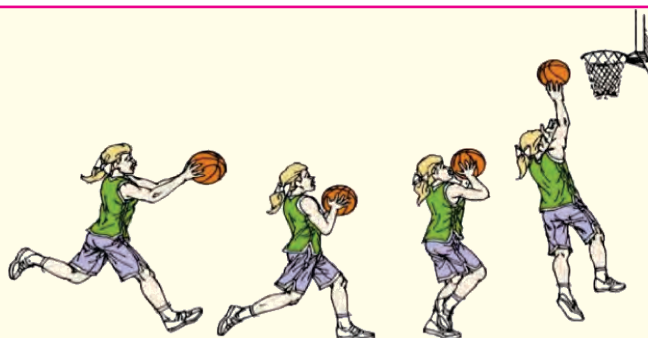
Jump shots
- Ball position should be in front and above the head.
- Take a jump from both feet & try to stay in air.
- After reaching maximum height, throw the ball towards basket.
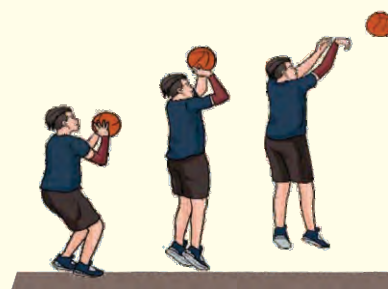
Passing and Receiving
Ball in the Ring

Six or seven players stand in a circle with one/two defender in the middle of the circle. Players on the outside of the circle try to pass the ball 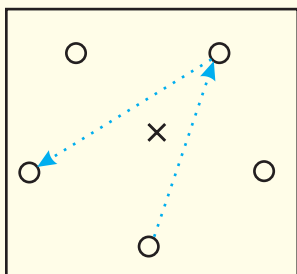across the circle so that the defender cannot intercept the pass. A player who makes a pass that is intercepted changes places with the defender in the middle of the circle. Condition the game so that players must pass using:

- chest pass, hook pass, one handed side pass, etc.
- pass using a different pass to the one received.

Passing and moving

Play in three's with one ball. Pass the ball from player 1, to 2, to 3 while travelling from one end of a playing area to another. Once at the far end one player dribbles in for a lay-up shot or attempt at a target, Change the position of the players each time.
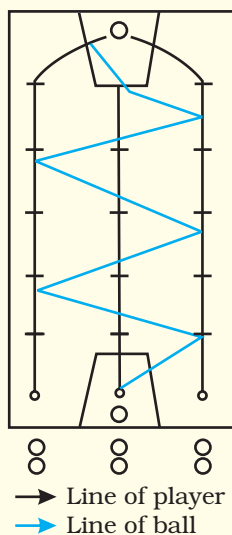
Play using:
- different passes

→ Line of player
→ Line of ball

- both hands to dribble

Increase the difficulty of the game by adding defending players who try to intercept the ball as it is moved down the playing area.

Shooting

Practice lay up shooting from the left and right side of the basket

Shoot for goal

Play in teams of 10

Make a single file of players facing the basket. Give the ball to the player at the front of the line. Player shoots using a lay up shot, runs in for own rebound and passes out to the next player in the line.

Jump Shots

Practice jump shots from different positions on the court and from the free throw line.

Combine dribbling with jump shots without and with opposition.

Set up shooting competitions against other teams. First team to score 10, 20 points wins the game. Use lay up shots and jump shots.

Set up challenges that involved dribbling, sending and receiving and shooting using a large playing area. Which is the first team to score 10, 20 points?

The game of Basketball

- Condition the game to reinforce skill learning. For example pass without losing the ball. The team in possession must make 6 successful passes before attacking the basket.
- Teach different systems of play: 'man to man' marking, 'zone' marking,' half court press", explaining when and how they are used.
- Set up knock out or league competitions that allow teams to play together often and get to understand each other's strengths and weaknesses.
- Teach students how to officiate and keep score. Begin by looking for and penalising just one or two obvious infringements in practice tasks and small sided games. For example, double dribble, shifting.

Practice for Basketball Dribble

A.

Only the off-hand is allowed to push the ball against the wall –its' dribbling against the wall rather than the floor

It takes several tries to get into a rhythm where players control one ball bouncing high while the other is kept low

B.

Switch the high–dribble, low-dribble hand at mid-court and run through the same actions toward the baseline

Only the off-hand is used to navigate through the cones-be sure players are executing proper dribbling techniques (pushing the ball with fingertips rather than slapping at it)

C.
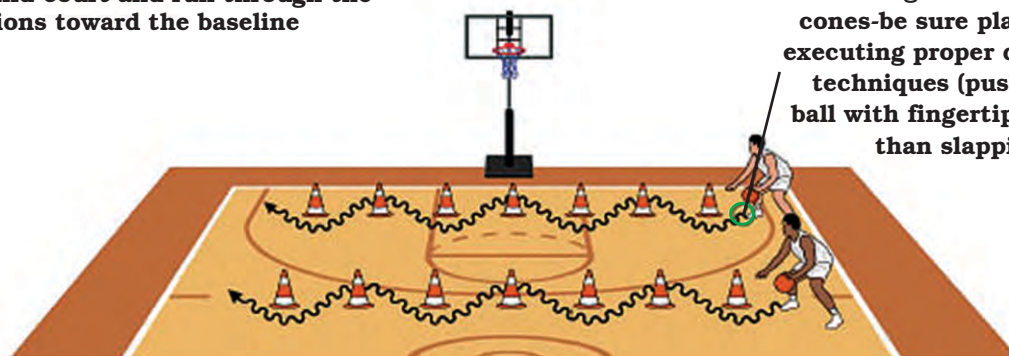
Now make up your own games and have some fun
- Decide a playing area. Mark it out in some way.
- How many players will be in each team?
- What rules will you have?
- How will you start the game? How long will your game last?
- How will you make sure that everyone is involved in the game?
- Who will referee your game, time it and keep score?

'Swachcha Vidyalaya Swachcha Bharat'

Project Focus : *Cleanliness and Sanitation.*

Duration- Term/Annual

INTRODUCTION

'Swachcha Vidyalaya Swachcha Bharat' project can be taken by the students to improve the cleanliness and sanitation conditions in the school campus, community and the surroundings. Following are some of the key objectives to achieve during this project:

KEY OBJECTIVES

- To identify the difference between clean and dirty places.
- To bring attitudinal change towards cleanliness and sanitation.
- To be able to distinguish between benefits of cleanliness and the disadvantages of uncleanliness, including the health hazards.
- To make the community aware of the result of not practicing cleanliness.
- To know the importance of cleanliness in neighbourhoods, school, parks, market places, roads and cities.
- To know how to appeal for clean places.
- To be aware of unclean and unhealthy surroundings as breeding ground of epidemics and diseases.
- To be able to highlight cleanliness as an important value in day-to-day life.
- To develop a creative methodology to create awareness in community and test it

Learning Outcomes

- To be able to take care of personal hygiene and being organized with belongings.
- To learn to keep household items and personal belongings in proper place (before and after photos).
- To be able to live life of cleanliness through word and example.
- To learn the art of proper waste disposal and be able to sensitize other people about it**.**

Project Process

The students can also do it in the school with following steps:

- Each group can collect data/photographs related to waste/ garbage disposal in their school.
- The students can visit the classes in their school and ask the students, canteen workers and other employees to use **Blue** and **Green** bins kept in School premises for use, especially during the lunch breaks.

Activity Report for Cleanliness/Sanitation Drive (illustrative only) :

S. No.	Identified Locality/Place	Steps taken for cleaning up	Awareness generated	Solution recommended

Student Activity Report

S. No.	School	Identification of Problem	Steps taken for Improvement
1.	Canteen		
2.	Classrooms (Jr Wing)		
3.	Classrooms (Middle Wing)		
4.	Classrooms (Sr. Wing)		
5.	Corridors		
6.	Laboratory		
7.	Library		
8.	Parks		
9.	Playing ground		
10.	Reception		
11.	Sports room		
12.	Staff room		
13.	Toilets		
14.	Water Cooler		

Student's Daily Report

Date	Activity	Learning Experience	Outcome

Various methods to solve the identified problems include:

    (a) Generate awareness in the society

    (b) Start cleanliness drive in the given area.

    (c) Create awareness about benefits of re-using bio-degradable waste

Reflective Musings

Students can discuss in class about their experiences and response of the community via power point presentations.

- Describe what you have learned and felt about your project.
- How far was the activity beneficial for you?
- What have you learned about yourself and your surrounding from this project?
- How do you think we can solve problem of cleanliness and sanitation?
- How can we make the project more effective?

Conclusion

The students will now be able to:

(i)   Learn that they must keep their surrounding areas clean.

(ii)   Create awareness among other students and their community members about disposal of garbage and waste management for saving environment.

(iii)   Go through the process of initiating, planning and implementing a project based on waste management disposal.

OTHER PROJECTS RECOMMENDED FOR STUDENTS

Students can also select any one of the following given projects and they can also frame guidelines to complete the project. Teacher will help and guide the students to select the topic.

a.   Disposal of human waste properly and safely

b.   Creating sensitization amongst community members about personal hygiene

c.   Spreading awareness about sanitized and clean toilets and contribution required to maintain public utilities

d.   Proper garbage disposal

e.   School Sanitation

f.   Personal Hygiene

g.   Drinking Water Testing

h.   Green and Blue Bins

i.   Recycling

j.   Water Conservation

k.   Water Table

l.   Interacting with city sanitary workers

m. Spending a day with sanitary workers

n.   Visiting a city water works

     Adopt a Park/ Lake/ Pond