Secondary Physical Education Cards

TEACHERS MANUAL

Acknowledgements

Advisory Body:

Sh. S C Khuntia

Sh. Vineet Joshi,
Chairman
CBSE, New Delhi

Dr. Sadhana Prashar
Prof. & Director
(Academics, Research, Training & Innovation)

Ms. Carol Lukins
Consultant
Youth Sport Trust of UK

Ms. Mona Shipley,
Head,
Sport in Education
British Council, New Delhi

Sh. Pushkar Vohra
Joint Director,
CBSE, New Delhi

Monitoring Committee:

British Council
India

Mr. Mukesh Kohli
Associate Professor,
Arayabhatta College,
Consultant & Resource Person

Resource Person:

Mr. J L Pandey	Former National Co-ordinator AEP, NCERT
Dr. Indu Mazumdar	Professor, Laxmibai National Institute of Physical Education, Gwalior
Dr. Birendra Jhanjharia	Associate Professor, Laxmibai National Institute of Physical Education, Gwalior
Ms. Nutan Duggal	PGT, RSPV, Civil Lines, Delhi
Ms. Prema Mishra	Coordinator, G.D. Goenka Public School, Rohini, New Delhi
Dr. Nitu Joshi	Professor, Wadala College of Physical Education, Mumbai
Dr. Vikas Dutt	D.P.S. Mathura Road, New Delhi
Mr. Avinash Grover	D.P.S. Mathura Road, New Delhi
Mr. V.K. Jain	Director Sports, Bal Bahrti School, Pitampura, New Delhi
Mr. R.N. Mondal	T.T. Coach, Bal Bahrti School, Pitampura, New Delhi
Mr. Anshul Tanwar	Research Scholar, University of Delhi

Collaborating Agencies:

- UK Sport
- British Council
- Youth Sport Trust of UK
- CBSE
- LNUPE, Gwalior
- NSNIS, Patiala

Material Production:

Ankur Malik
Project Support Executive
British Council

BRITISH COUNCIL unicef uk sport world class sucess YOUTH SPORT TRUST सत्यमेव जयते

Content

Introduction

Although Health and Physical Education has been an integral part of school curriculum in India for many years, its transaction in schools is yet to attain the envisaged level. So far this curricular area has not received the status that has been enjoyed by the core subjects. In actual practice, it is not transacted in majority of the Indian schools. And wherever it is done, either the information about the games and sports are transmitted to the children only or only a selected group of students are engaged in games and sports as an extra-curricular activities.

The Governments of India and the United Kingdom have embarked on a three year collaborative initiative within which they are sharing expertise and ideas in the areas of physical education, sport and sport development to come out with a strategy that can lead to an effective transaction of this curricular area. The most significant part of the agreed program has been the focus on developing new approaches and methods for effective transaction of the physical education curriculum in Indian schools for students in Classes 1-X. A major component of this program has been the development of Physical Education Cards (PEC) and Teacher's manual suitable for the Indian situation. The main purpose of this resource material is to support and sustain the initiative, reinforce the transaction process of physical education and strengthen the delivery infrastructure. The stakeholders of school education in India accept that this strategy has been found very effective in the schools in the United Kingdom, will be very successful in Indian schools as well.

The purpose of this manual

- The manual supports the implementation of the Secondary Physical Education Cards. Teachers should read the manual fully before introducing the activities and tasks to students. It provides advice and guidance to on how to set up, organize and implement the activities and games safely and effectively.
- The manual should be read in conjunction with the CBSE School Health Manuals (Volumes III and IV). These manuals detail the physical education curriculum that should be followed and provide advice and guidance to schools on the expectations and outcomes of physical education as well as providing more detailed information about such issues as safety and first aid arrangements.
- The activities and tasks on the Secondary Physical Education Cards will help teachers to fulfil the requirements of the CBSE secondary physical education program as detailed on pages 55-70 (Vol. III) and 37-52 (Vo. IV) of the revised School Health Manual and reproduced in Appendix 1 of this manual (page……) The activities and tasks also support the teaching of the physical aspects of the NCERT Health and Physical Education Syllabus. The aspects that are covered by the Secondary Physical Education Cards are shown in Appendix A (page 120-121). Subjects for classes VI and XII?

- In an already busy schedule of academic studies the time available for physical education is limited. Therefore it is important that what time is available is used to the very best advantage to provide every student with an actively participative, high quality physical education programme that will build their confidence, develop their creativity and self-expression and lead to the desired outcome of the inclusion of physical activity as part of healthy lifestyle management.
- The programme offered by the Secondary Physical Education Cards and supported by this manual is based on three fundamental aims. They are:
- to provide adequate opportunities for all students to improve their physical competence and confidence and achieve in line with their age and potential,
- to create situations for all students, whatever their circumstances or ability, to take part in and enjoy physical education and sport and understand its benefits to health and well being,
- to promote the health, safety and well being of all students

From PEC to SPEC: Progression in Physical Education

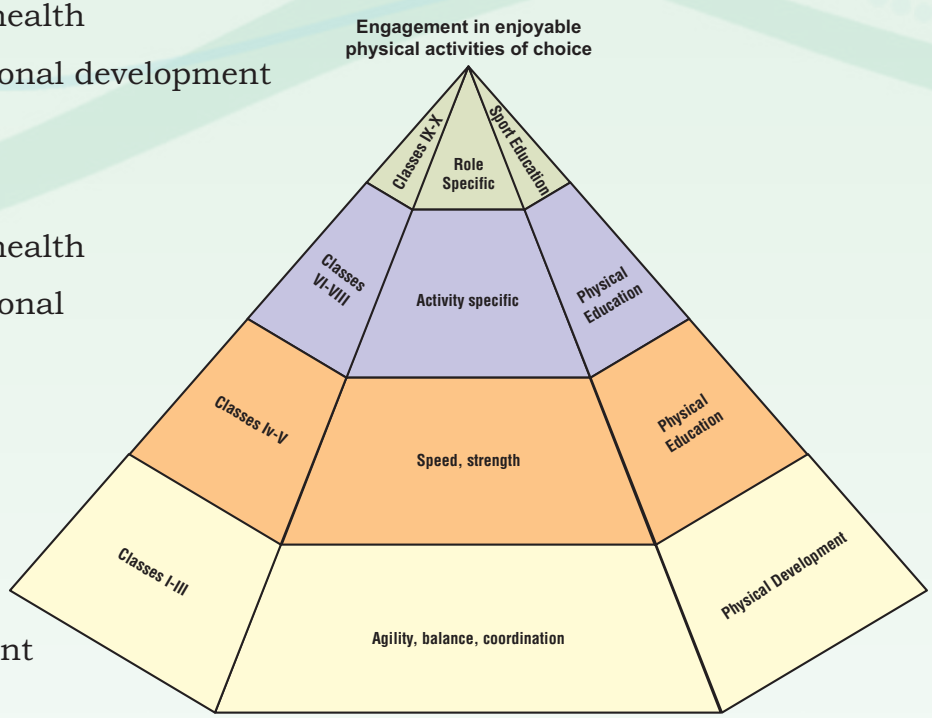
The initiative began with the development of Physical Education Cards (PEC) and Manual for Teachers for the primary stage. These were tried out and found to be effective. Now Physical Education Cards (PEC) have become a tool for providing inclusive and interesting experiences to the children at primary school stage and facilitating the process of engaging them intensively in games and activities focused particularly on agility, balance, coordination, speed and strength. Each Card is devoted to a particular set of activities aimed at agility, balance and coordination for Classes I-III and agility, balance, coordination speed and strength for Classes IV and V. Each card provides the essential information needed for engaging all students of the concerned class in the selected activity or game. The title of the card specifies the abilities to be focused by the particular activities, the activities to be organised, the process of organising the activities, equipment that will be needed, safety measures to be taken and the skills to be developed. Besides the link of the activities with the existing curriculum including the links with other school subjects and the process of self assessment are also explained. PEC cards are so organised that they provide vertical coverage and horizontal comprehensiveness to the entire curriculum of physical education at the primary stage.

During the development of the PEC resource materials for primary stage, the Central Board of Secondary Education (CBSE), a national board with a pace-setting role for other boards in the country, issued circulars to all the schools to make provision for the teaching of physical education in the school time table, thereby making it compulsory to be undertaken daily by every student in Classes 1-X. As an eventual outcome of this decision students arriving in Class VI will have experienced a comprehensive programme of physical education that will have contributed to improved agility, balance, coordination, speed, strength and understanding of how to participate in different activities and games.

Secondary Physical Education Curriculum (SPEC) transaction strategy builds on this knowledge and the experiences and skills students will have developed through primary school stage. SPEC will continue to develop aspects of agility, balance, coordination, speed and strength doing so through engaging students in progressively more complex skill development and more specific games and performances.

Objectives of Physical and Health Education

- Positive attitudes towards health
- Physical, mental and emotional development
- Confidence
- Efficiency
- Positive attitudes towards health
- Physical, mental and emotional development
- Self-mastery
- Sense of responsibility
- Self sacrifice
- Self defence
- Neuro muscular development
  Good sportsmanship
- To lead an enthusiastic and active life
- Socially acceptable behaviour patterns



- Self-mastery
- Self discipline
- Courage
- Sense of responsibility
- Self discipline
- Courage
- Confidence
- Efficiency
- Patriotism
- Service to the community
- Self dependence
- Good posture
- Cooperation
- Fair play

Promotion of Positive Healthy Life Style Choices through Physical Education

The overall aim of physical education programs is to give students the confidence, competence, understanding and enjoyment of being active to include regular participation in activity as part of an overall healthy lifestyle that also considers good hygiene, healthy eating and social and emotional well being.

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

- cardiovascular fitness, muscular endurance, muscular strength and flexibility to meet the demands of every day life,
- agility, balance, coordination, reaction time, power and speed to be able to perform a wide range of daily tasks,
- the techniques necessary to become skillful performers and competitors in different sports and activities,
- such traits of character as self-mastery, discipline, courage, determination and confidence,
- the ability to work with others to produce desired outcomes, e.g. to win the game, to perform with others to audiences made up of class mates and the wider community,
- good sportspersonship, fair play and the ability to be an informed spectator,
- an ability to perform in different activity-related roles such as attacker, defender, supporter, supported, referee, leader, captain.

If students are to prepare themselves for using their leisure time effectively they will need to acquire the knowledge and skills of a broad range of activities, sports and games so that they are able to make truly informed choices about the activities they want to get involved in as part of their own healthy lifestyle management. The choices students make should lead them to enjoying activity both as participants and spectators, appreciating the social and emotional benefits that come from engaging by themselves and with others in enjoyable physical pastimes.

All schools cannot include every physical activity within its timetable. The list of physical activities available to young people these days is vast and ranges from the very traditional, indigenous games of our country to the increasingly popular games and pastimes of other countries such as cheerleading, Tchoukball, Valencia Ball and Dodge ball. To ensure students receive exposure to a broad range of opportunities while enabling them to pursue some in depth, the major games and activities have been grouped and categorized according to their outcomes. These activities, games and sports are included in the NCERT and CBSE syllabuses. Schools may add their own games, sports and activities to the relevant categories. Schools may choose which activities they teach to bring about the intended outcomes depending on the facilities, expertise and interests of their own students. However, it is expected that throughout Classes VI - VIII students will be taught at least one activity per year from each of the five categories shown below. In Classes IX and X, whereas all students are expected to involve themselves in

games, activities and sports, many of them may choose to excel in those of their interest. It is therefore, recommended that these students pursue a minimum of two activities from each of two different categories each year. This will allow for specialization whilst still providing breadth to their learning.

Categorisation of Activities

Activities can be categorized in many different ways; indoor, outdoor; games, performances; tradition, modern; individual, team to name but a few. For the purposes of the SPEC program activities have been categorized according to the similarity of their outcomes.

Title of Category	Focus of Activity	Outcome	Example activities
Athletics	➥ 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.	Racing against others over different distances; relay races; throwing for distance and aiming onto/at targets; jumping for height; jumping for distance; swimming against, and with others, over different distances.
Adventure	➥ Solving problems and having the courage to overcome fear/ anxieties in challenging situations and environments.	➥ Sense of achievement and satisfaction. ➥ Knowing one's own limitations and taking risks safely. ➥ Closeness to nature.	Trekking; wall/rock climbing; rapping; camping; rafting; mountain biking; skiing; personal survival and life saving.
Games	➥ Cooperating with others to use individual skills and team strategies to beat the opposition and win the game.	➥ Team spirit and loyalty. ➥ Sportsmanship. ➥ Communicating with others.	***Invasion Games:*** Basketball; Wheelchair hockey, Kabaddi Netball; Gallery; Football; Water polo.

	➥ Playing individually or with a partner to beat the opposition and win the game. ➥ Using individual skills and team strategies to cooperate with others to score points and win the game. ➥ 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.	➥ Competing and winning fairly.	***Invasion Games:*** Basketball; Wheelchair hockey, Kabaddi Netball; Gallery; Football; Water polo. ***Rally Games:*** Lawn Tennis; Table Tennis; Badminton; Squash; Volleyball. ***Innings Games:*** Cricket/Polybat, Kho-Kho Rounders; Softball; Stool ball. ***Target Games:*** Archery; Boccia; Bowls; Golf
Health and fitness	➥ Exercising regularly and safely for personal well being.	➥ A commitment to exercising safely and effectively for the benefit of personal health and well.	***Aerobics;*** Yoga; dance; calisthenics; jogging; cross country; working out using weights/gym equipment; cycling.
Individual sports	➥ Participating for oneself in activities.	➥ Taking responsibility for one's involvement in activity. ➥ Personal satisfaction, self reliance and self accountability. ➥ Improved self esteem and confidence. ➥ A desire to compete for oneself.	***Aerobics;*** Yoga; dance; calisthenics; jogging; cross country; working out using weights/gym equipment; cycling.

Recommendations for Process of Curriculum Transaction

Classes VI-VIII

Divide the school year into two halves. In each of the two periods there are approximately 100 lessons. Divide these periods into two sets of 50 lessons. For each set of 50 lessons allocate a different activity from each of the four categories of activities (excluding Adventure). Activities should be chosen based on schools' facilities, expertise and student preferences. Spend approximately 30 lessons teaching students the knowledge, attributes, skills, strategies and/or compositional knowledge required to meet the outcomes of the activity. A further 20 lessons should be used for inter class games, competitions and performances and opportunities for assessing students knowledge and practical ability. Combinations of activities chosen should meet the requirements of the NCERT and CBSE syllabuses for Classes VI - VIII.

Here is an ***example*** of how activities and games might be organized for each class.

Class VI

Period 1 (April – September)		**Period 2 (October - March)**	
50 lessons (25 hours)	50 lessons (25 hours)	50 lessons (25 hours)	50 lessons (25 hours)
Athletics Running; Jumping for distance Throwing for distance Swimming races swimming for distance	**Games** **Invasion Games** (Basketball, Kabaddi, Football, Netball, Water Polo, Gallery) **Net / Wall Games** (Volleyball, Table Tennis, (Tennis, Badminton, Squash) **Inning Games** (Cricket, Kho-kho, Softball) **Target Games** (Archery, Boccia, Golf)	**Individual Sports** Gymnastics, Wrestling Judo, Boxing Fencing, Taekwondo Skating, Diving Horse Riding, Rhythmics,	**Health and Fitness** Aerobics, Yoga, Jogging Cycling, Dance Cross Country Run Working out using weights/ Gym Equipment, Calisthenics

Class VII

Period 1 (April – September)		Period 2 (October - March)	
50 lessons (25 hours)	50 lessons (25 hours)	50 lessons (25 hours)	50 lessons (25 hours)
Athletics Swimming races	**Health and Fitness** Calisthenics	**Athletics** Running over longer distances	**Health and Fitness** Circuit training
Individual Sports Taekwondo	**Games** Volleyball	**Individual Sports** Rhythmic activities	**Games** Basketball

Class VIII

Period 1 (April – September)		Period 2 (October - March)	
50 lessons (25 hours)	50 lessons (25 hours)	50 lessons (25 hours)	50 lessons (25 hours)
Athletics Running; Jumping for distance; Throwing for distance;	**Health and Fitness** Dance	**Athletics** Relay racing; Jumping for height; Throwing onto targets;	**Health and Fitness** Different workouts
Individual Sports Skating	**Games** Cricket	**Individual Sports** Sports Acrobatics	**Games** Table Tennis

Adventure Activities

During classes VI - VIII all students should have the opportunity to undertake adventure activities. A full week should be given to these activities. It is possible to undertake some of these activities on the school site, or within the local area. For example it is possible to undertake team building, problem solving and orienteering activities on the school site and personal survival and lifesaving activities in school pools. Other activities require specialized equipment and expertise and may require students to spend time away from their homes. These activities might be combined with studying aspects of science and social sciences for example.

Classes IX -X

Divide the school year into two halves. In each of the two periods there are approximately 100 lessons. Divide these into two sets of 50 lessons. For each set of 50 lessons allocate a different activity from two of the four categories of activities (excluding Adventure). Students should select the activities they want to pursue further whether as specialists or for personal enjoyment. Spend approximately 30 lessons teaching students the knowledge, attributes, skills, strategies and/or compositional knowledge required to meet the outcomes of the activity and involve students as performers and officials, judges and/or referees. A further 20 lessons should be used for inter class/school games, competitions and performances and opportunities for assessing students using the continuous and comprehensive assessment framework. Combinations of activities chosen should meet the requirements of the NCERT and CBSE syllabuses for Classes IX and X.

Here is an ***example*** of how activities and games might be organized for each class.

Class - IX

Period 1 (April – September)		Period 2 (October - March)	
50 lessons (25 hours)	50 lessons (25 hours)	50 lessons (25 hours)	50 lessons (25 hours)
Individual Sports Students choice	**Health and fitness** Yoga	**Athletics** Students choice	**Athletics** Students choice
Individual Sports Student Choice	**Games** Yoga	**Individual Sports** Student Choice	**Games** Students choice

Class X

Period 1 (April – September)		Period 2 (October - March)	
50 lessons (25 hours)	50 lessons (25 hours)	50 lessons (25 hours)	50 lessons (25 hours)
Individual Sports Students choice	**Health and fitness** Yoga	**Athletics** Students choice	**Athletics** Students choice
Individual Sports Student Choice	**Games** Yoga	**Individual Sports** Student Choice	**Games** Students choice

Adventure Activities

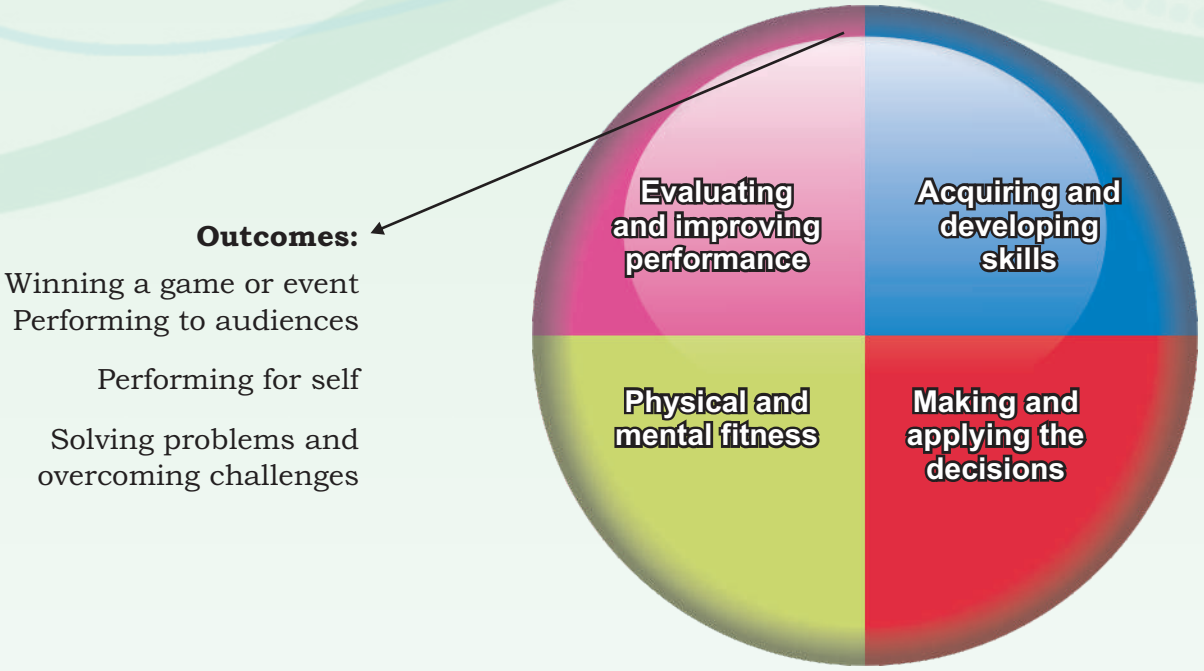
During classes IX-X all students should have the opportunity to undertake adventure activities. A full week should be given to these activities. The activities should allow students to build on their adventure learning in Classes VI-VIII and in most cases these activities should take place away from the school site. Where possible students should stay away from their homes in environments that are unfamiliar to them and be placed in situations where they are required to work with others to solve problems and overcome challenges. The challenges and problems encountered should require students to learn such things as rock climbing, orienteering and rafting. These activities might be combined with studying aspects of science and social sciences.

Making the connections in Physical Education and becoming Physically Educated

In order to become physically educated students need to understand what is needed to bring about different outcomes that are successful and effective. To do this, students need to:

- develop, learn and apply the techniques and skills that are necessary to bring about the required outcome,
- make and use decisions about:
  - the skills, strategies and tactics they will use when playing games and competing against others,
  - the movements, actions and compositional ideas they will use when performing routines, dances and sequences,
  - the skills and strategies they will use to solve problems and overcome challenges,
  - develop the physical capacity and mental desire to perform well for themselves and others in order to produce successful outcomes, as in winning games and competitions, performing to audiences or overcoming challenges,
  - know what it is they are doing and how to improve.

Students should make progress in all four of the above areas and understand the interrelationship of each to the overall success of any performance or outcome.



Interrelated components that together make up a performance or outcome

For example, when learning to play a game in which the outcome is to outwit the opponents, score goals and win the game students need to:

- develop individual skills relevant to the particular game,
- use individual skills and team tactics and strategies appropriately and effectively during the game to outwit the opposition successfully,
- improve aspects of strength, stamina and suppleness to be able to participate effectively for the duration of the game and develop the desire to want to win and be committed to practicing and training in order to be successful whether individually or as part of a team,
- know what it is they need to learn and do in order to get better.

The following pages provide more specific information about how students make progress and achieve effective outcomes in each of the categories of activities.

Category of Activity: Adventure

When involved in adventure activities students should learn how to solve problems and overcome challenges presented by themselves, others and the environment safely and effectively. Students should progress from undertaking challenges in and around familiar surroundings to unfamiliar environments. An unfamiliar environment might be a local park, a different school site or sports centre site, a water environment as well as more challenging wooded and hilly regions.

Examples of adventure activities include but are not exclusive to:

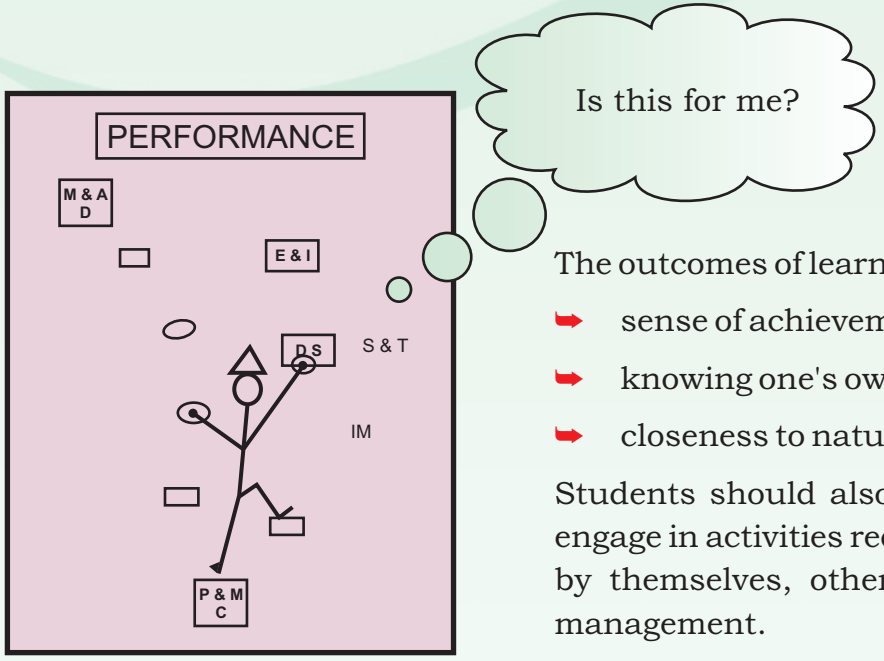
- orienteering
- personal survival
- life saving
- expeditions by different modes of transport for example walking, boating, cycling
- climbing
- rapping
- rafting
- mountain biking
- skiing

The focus of learning should be around the way in which student's progress in their application of the required skills in more challenging and complex situations and activities. Learning should include:

- developing skills and using them in familiar and unfamiliar environments and increasingly challenging adventure situations (DS)
- using different strategies to bring about successful outcomes (ST)
- having the physical fitness and mental capacity needed to carry out the demands of the activity (P & M)
- knowing what they do well and what they need to do to practice in order to improve further (IM)

As student's progress in their understanding of the skills and knowledge required to overcome challenges they should focus on the specific knowledge, skills and understanding that will help them to improve the overall success of an outcome. For example students should understand and develop individual skills and techniques so that they can use them effectively

when involved in adventurous activities. They should also improve aspects of fitness that will enable them to overcome challenges safely and effectively. Students will also need to learn to work with others to solve problems which will require them to learn to take responsibility for the roles, engagement and support they choose to give the rest of their group, team or partner.



The outcomes of learning about, and participating in these activities will be:

- sense of achievement and satisfaction
- knowing one's own limitations and taking risks safely
- closeness to nature

Students should also be able to make informed choices about whether they wish to engage in activities requiring them to solve problems and overcome challenges presented by themselves, other's and the environment as part of their own healthy lifestyle management.

Category of Activity: Athletic Activities

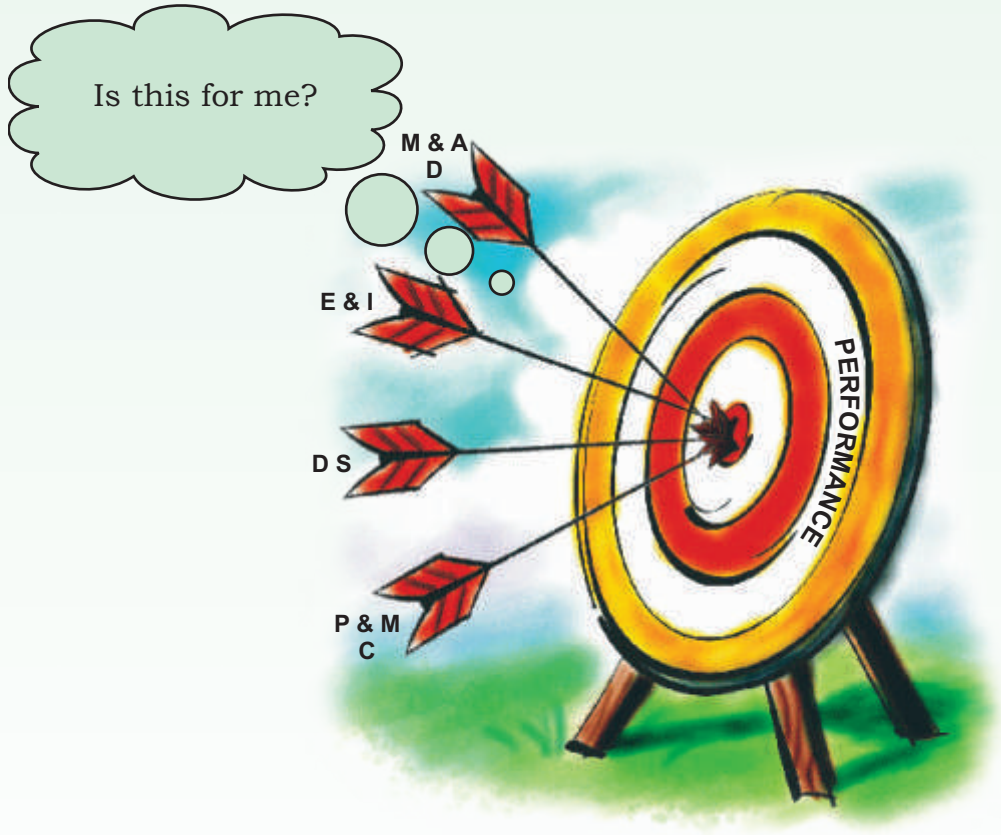
The focus of work through athletic activities should be to help students understand how to combine and use skills, techniques, tactics and strategies to enable them to perform at an optimum level to win individual or team competitions that require them to go further, higher and/or faster.

Examples of activities through which students can learn how to perform at their maximum level include, but are not exclusive to:

- events like running or swimming where the outcome is being 'the fastest'
- events like throwing and jumping where the outcome is being 'the longest'
- events like jumping and pole vaulting where the outcome is being 'the highest'

The focus of learning should be around the way in which student's progress in their application of the required skills to be able to go further, higher and faster. Learning should include:

- developing skills and using them to improve the overall success of a performance (DS)
- using different strategies and tactics to win events (S&T)
- having the physical fitness and mental capacity needed to carry out the demands of the activity (P&M)
- knowing what they do well and what they need to practice in order to improve further (IM)



As students progress in their understanding of these elements of athletic activities they should focus on the specific knowledge, skills and understanding that will help them to improve the overall success of a performance. For example students should develop

aspects of fitness that will enable them to perform at their maximum level. They should commit themselves to training programmes and practising specific techniques and skills in order to be able to perform at their optimum level.

The outcomes of learning about, and participating in these activities will be:

- being able to set and meet personal targets
- being able to focus, concentrate and practice to improve

Students should also be able to make informed choices about whether they wish to engage in activities requiring them to go further, higher and/or faster as part of their own healthy lifestyle management.

Category of Activity: Games

When learning and playing any game students should be helped to understand how they can use their own and other's skill, tactics and strategies to solve problems created by the opposition in order to outwit them and win points or score goals.

There are four major types of games activities, all of which require players to outwit an opponent or team of opponents in order to score goals or points to win the game. The categories are:

Invasion Games

In these games players cooperate with others to use individual and team skills and strategies to invade the space of their opponents to score goals and win the game.

Examples of invasions games include but are not exclusive to:

- basketball, football, gallery, kabbadi, hockey, wheelchair hockey, rugby, water polo, lacrosse, roller hockey, tchoukball.

Net/Wall Games

In these games individuals, pairs or small groups of players use skills and strategies to overcome the opposition who are usually, although not always, on the other side of a net. In most cases a bat or racket is used by all players.

Examples of net/wall games include, but are not exclusive to:

- lawn tennis, table tennis, badminton, polybat, squash, volleyball.

Striking and Fielding Games

In these games players cooperate with others to use individual and team skills and strategies to score points and win the game. One team acts as a batting team, the other as fielders. Both teams act in both roles during a game.

Examples of striking and fielding games include, but are not exclusive to:

- softball, rounders, cricket, table cricket.

Target Games

In these games players compete individually or cooperate with others to score either the most points (as in archery) or the least number of points (as in golf) and win the game.

Examples of target games include, but are not exclusive to:

- archery, boccia, bowls, golf.

The focus of learning should be around the way in which student's progress in their application of the required skills in more challenging and complex situations and activities. Learning should include:

- developing skills and using them in increasingly complex games situations (DS),
- using different strategies and tactics when playing the game (S&T),
- having the physical fitness and mental capacity needed to carry out the demands of the activity (P&M),
- knowing what they do well and what they need to practice in order to improve further (IM).

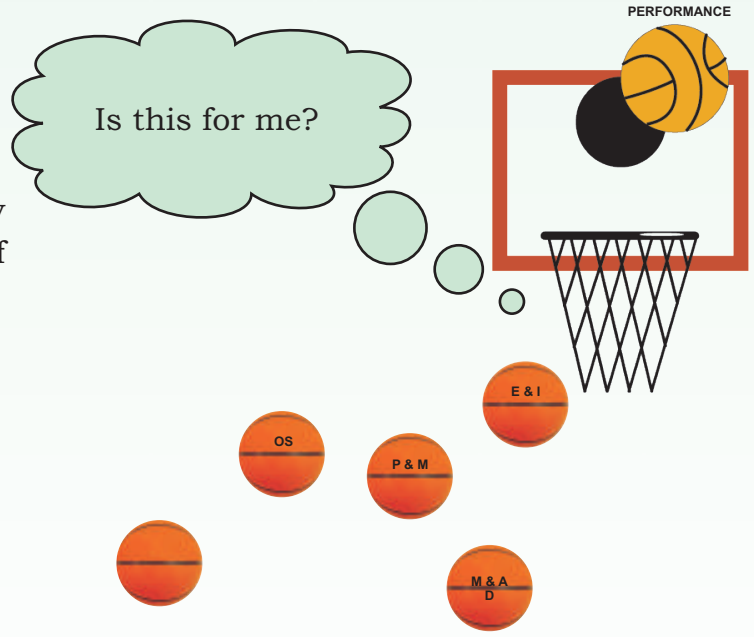
As students progress in their understanding of these elements of games playing they should focus on the specific knowledge, skills and understanding that will help them to improve the overall success of a performance or outcome. For example students should understand and develop individual skills and

techniques so that they can use them effectively when outwitting opponents. They should also develop their desire to want to win and their commitment to practicing and training in order to be successful whether individually or as part of a team.

The outcomes of learning about, and participating in these activities will be:

- team spirit and loyalty,
- sportspersonship,
- communicating with others.

Students should also be able to make informed choices about whether they wish to engage in activities requiring them to outwit opponents as part of their own healthy lifestyle management.



Category of Activity: Health and Fitness

The focus of work in health and fitness is to help students develop the knowledge, skills and understanding they need to be able to exercise regularly, safely and effectively in order to improve their own fitness, health and well being. They should participate in different fitness programmes so that they can make informed decisions about the types of activities they might choose to get involved in on a regular basis.

Students should learn to set their own goals and design and carry out fitness and exercise programmes that will enable them to meet these goals. These goals might be weight management, improving muscle strength and/or cardiovascular endurance.

Examples of activities through which students can learn how to exercise safely and effectively to improve health and well being include, but are not exclusive to:

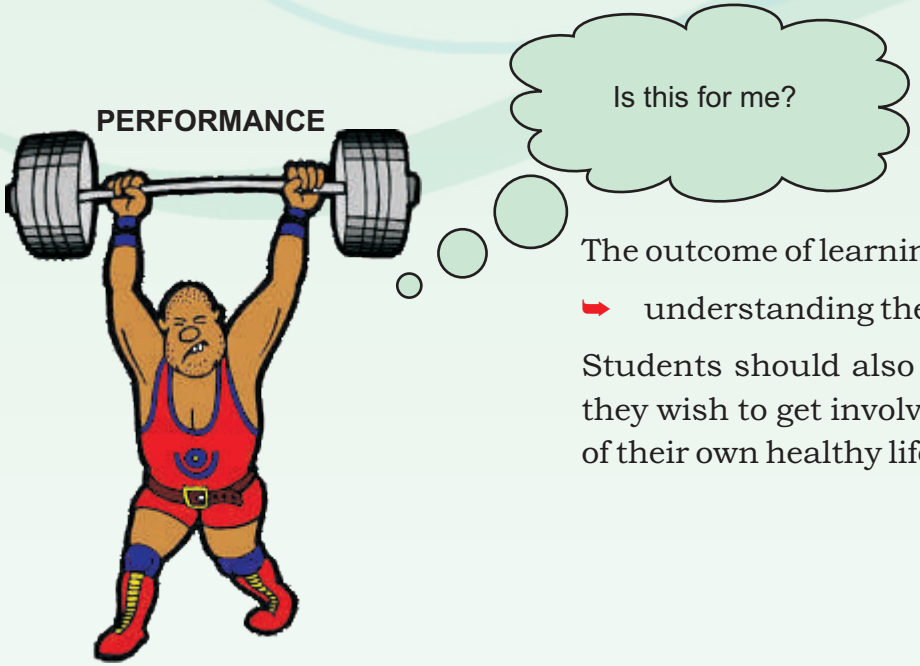
- circuit/continuous/interval/fartlek training
- aerobics
- power walking
- dance
- jogging
- weight training
- aqua aerobics
- yoga
- skipping
- cycling

The focus of learning should be around the way in which student's progress in their application of the skills required to be able to participate in effective health and fitness programmes. Learning should include:

- developing skills and using them to improve overall fitness and health (DS),
- designing and carrying out fitness programmes that meet their own goals (DE),
- having the physical fitness and mental capacity needed to carry out the demands of the activity (P&M),
- knowing what they do well and what they need to practice in order to improve further (IM).

As students progress in their understanding of these elements of health and fitness activities they should focus on the specific knowledge, skills and understanding that will help them to improve the overall success of their fitness programmes in meeting their own targets and goals. For example students should understand the commitment needed to exercise regularly for a sufficient amount of time and at a sufficiently high intensity if they are to benefit from their involvement in

programmes designed to meet specific fitness and well being goals. Students should understand the components of fitness and be able to design and carry out programmes that improve specific components of fitness to meet their goals and targets.



The outcome of learning about, and participating in these activities will be:

- understanding the place of regular activity as part of an overall healthy lifestyle

Students should also be able to make informed choices about the types of activities they wish to get involved in that will help them to exercise regularly and safely as part of their own healthy lifestyle management.

Category of Activity: Individual Sports: (Gymnastics)

The focus of work in gymnastics is to help students understand how to combine movements and actions together accurately to produce outcomes that are aesthetically pleasing to observe and engaging for audiences.

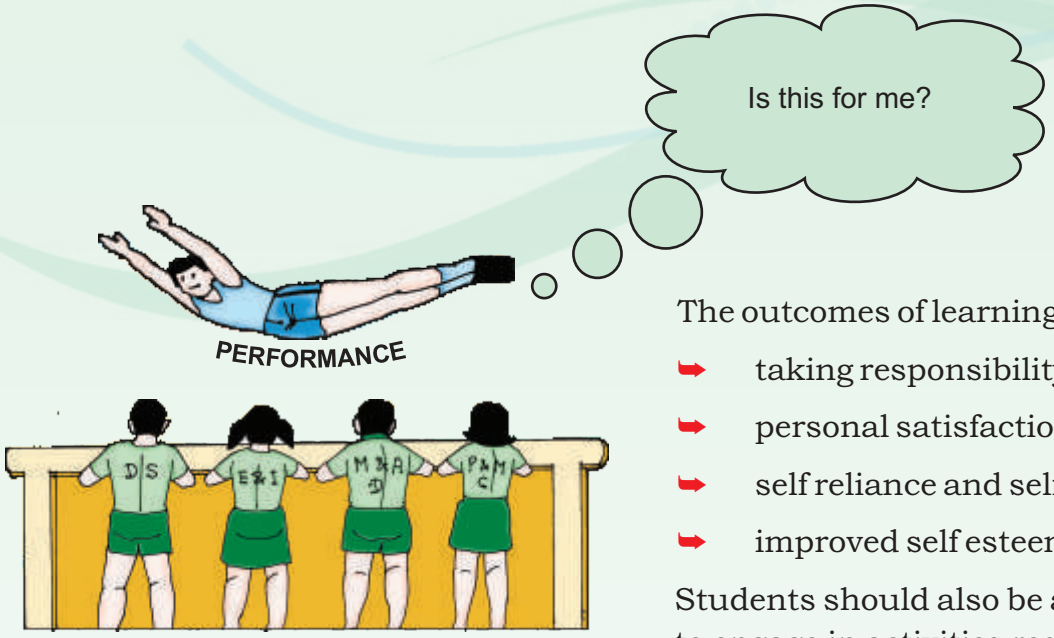
Examples of activities through which students can learn how to accurately repeat actions, sequences and phrases include, but are not exclusive to:

- jump rope
- gymnastics
- diving
- rhythmic gymnastics
- synchronised swimming
- trampolining
- ice skating
- juggling and circus skills
- cheerleading

The focus of learning should be around the way in which student's progress in their application of the required skills in more challenging, intricate and complex routines. Learning should include:

- developing skills and using them in increasingly complex routines and performances(DS),
- using different compositional ideas to create interesting routines and performances(CI),
- having the physical fitness and mental capacity needed to carry out the demands of the activity (P&M),
- knowing what they do well and what they need to practice in order to improve further (IM).

As students progress in their understanding of these elements of gymnastics they should focus on the specific knowledge, skills and understanding that will help them to improve the overall success of a performance. For example students should understand and develop aspects of fitness that will enable them to complete performances showing fluency, quality and control throughout. They should also develop a sufficiently wide movement vocabulary so that they can select actions and movements that produce the best aesthetically pleasing and engaging outcomes for audiences.



The outcomes of learning about, and participating in these activities will be:

- taking responsibility for one's own involvement in activity
- personal satisfaction
- self reliance and self accountability
- improved self esteem

Students should also be able to make informed choices about whether they wish to engage in activities requiring them to perform routines and sequences as part of their own healthy lifestyle management.

Introduction to SPEC

- Secondary Physical Education Cards is a teaching resource for use with students in classes VIII-X.
- The cards have been designed to be used by secondary teachers, either specialists or non specialists to teach physical education during the daily time tabled PE lessons recommended by CBSE. Each set of cards provides details of the skills and techniques that need to be learnt, the types of practices that can be set up and the important features of the game or activity that needs to be understood and mastered.
- For each category of activity there are two cards, one for use with classes VI-VIII and one for classes IX-X. In each case the cards have been designed to be used over a period of 30 lessons. The cards are not intended to be a full scheme of work. The activities and ideas are examples and suggestions only. Teachers should include additional skill learning, tasks and activities appropriate to the needs of different groups of students.
- Sets of cards are included for teaching the following activities and games:

Title of Category	Outcome	Cards for Classes VI-VIII	Cards for Classes IX-X
Athletics	➥ 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.	Running: sprinting Jumping: 'Hang' technique Throwing: Shortput-Slide Swimming	Running: relay races Jumping: 'Hitch Kick' technique Shorput - Oberoin Swimming
Adventure	➥ Sense of achievement and satisfaction. ➥ Knowing one's own limitations and taking risks safely. ➥ Closeness to nature.	Team Building	Orienteering
Games	➥ Team spirit and loyalty. ➥ Sportsmanship. ➥ Communicating with others. ➥ Competing and winning fairly.	Basketball, Volleyball Hockey, Football, Kabaddi Table Tennsi, Cricket Kho-kho, Archery	Basketball, Volleyball Hockey, Football, Kabaddi Table Tennsi, Cricket Kho-kho, Archery

Health and fitness	➥ A commitment to exercising safely and effectively for the benefit of personal health and well.	Aerobics, Yoga	Aerobics, Yoga
Individual sports	➥ Taking responsibility for one's involvement in activity. ➥ Personal satisfaction, self reliance and self accountability. ➥ Improved self esteem and confidence. ➥ A desire to compete for oneself.	Gymnastics: linking actions, Fencing, Judo, Boxing	Gymnastics: linking actions, Fencing, Judo, Boxing

Principles of the Secondary Physical Education Cards

The focus of activities and tasks for children in classes VI - VIII is on the continued improvement of health related and skill related fitness in the context of a broad range of challenging activities, events and games. Modified versions of activities and games should be taught leading to the more recognised forms of the adult game. Students should continue to develop the widest movement vocabulary possible such that they are able to participate successfully in activities, events, games and performances. By the end of Class VIII students should know what activities, events and games they enjoy and wish to pursue as they begin to think about how they might include activity as part of their own healthy lifestyle management. Therefore, during classes IX and X students should spend time practicing and playing the activities, games and events of their choice.

Cards for Classes VI-VIII are designed for students working towards competency level. Those for Classes XI-X are relevant for students working towards becoming proficient in an activity, event or game.

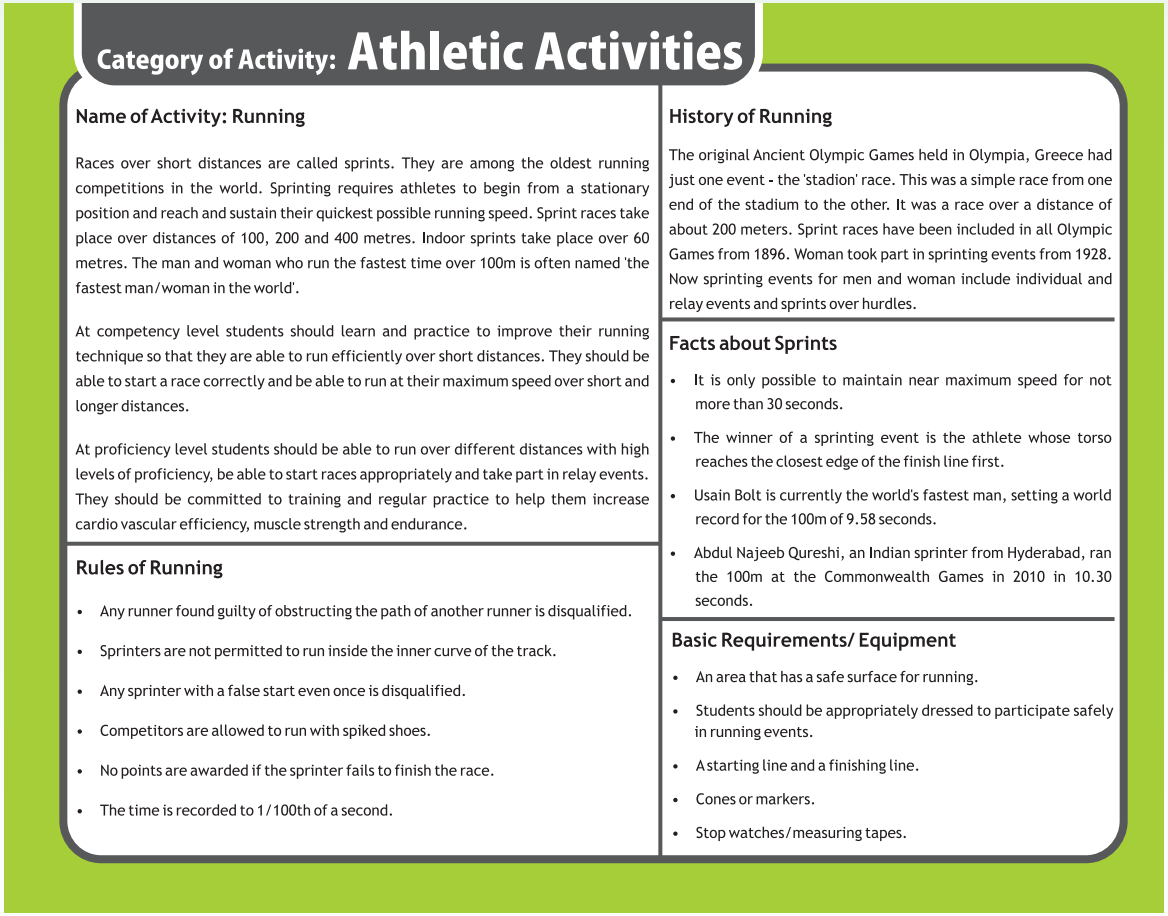
The cards provide:

- relevant, age related tasks, activities, events and games for students in classes VIII-X;
- activities that will help students in Classes VI-VIII to increase their competence and understanding of games, events and activities and begin to make choices about the types of activities they would like to pursue further;
- a range of activity-types for students in Classes IX and X to choose to specialise in or participate in as part of their own healthy lifestyle choices;
- skills, practices and ideas to challenge students to apply their learning in increasingly complex situations;

- opportunities for students to participate in vigorous physical activity for the benefit of improve participation in sports and activities and for the benefit of their own health and well being;
- opportunities for students to develop responsible personal and social behaviour by working in groups and independently of the teacher;
- activities that are inclusive;
- examples of ways in which language, mathematical and scientific learning can be included and reinforced in meaningful contexts during physical education lessons.

How to use Secondary Physical Education Cards

The layout of each card is the same:



Category of Activity: Athletic Activities

Name of Activity: Running

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.

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 woman 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.

Title, based on the outcome of the activity

Category of Activity: Invasion Games

Background information about the activity

Name of Activity: Basketball

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.

Some simple rules to get students started

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.

A short history of the activity

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.

Basic facts about the activity

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 equipment and resource requirements

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.

Steps : how can i change..?

Including all **Students**

Space • Task • Equipment • People

Use STEP to modify basketball activities so that all students are included. Try these modifications or devise your own.

Where is the activity happening?

Space

- Increase or decrease the space between the sender and the receiver; for example, if players are closer together it improves the accuracy of the pass; if they are farther apart, it provides more reaction time.
- Increase the playing space to encourage more movement; reduce the size of the space to encourage the development of passing skills.

What is happening?

Task

Passing & receiving

- Some young people find it easier to catch (receive) a larger ball, but throw (send) a smaller ball; therefore, in some cases, it may be necessary for these individuals to practice the skills of sending and receiving separately until their competency has improved (see also 'Equipment').

Dribbling

- Begin with static dribbling before introducing movement.
- Some students who have mobility or coordination impairments can move a short distance carrying the ball, bounce from a static position, and then continue moving.
- Wheelchair users can dribble according to wheelchair basketball rules; two pushes with the ball on the lap allowed then the player must bounce, pass or shoot the ball.

Scoring

- Use targets placed at different heights: chalked onto walls, basketball rings or use buckets or hoops. Increase the size of the target to make it easier. Increase the distance from a target to make it more difficult.

What is being used?

Equipment

- Provide students with a range of balls that bounce; players can initially practise with the size of ball they find they can control best.
- A brightly-coloured ball may help the participation of students who have vision impairment.

People

- Team numbers can be varied; for example, in order to balance a game, it may be best to play 4 v 2, where four players who are developing their skills play against two more competent players.
- Have one or more unmarked players per side who are always ready to receive a pass.
- Some players might act as 'link' players, carrying the ball between attacking and defensive zones.
- End Line / Ball game.
- Instead of targets, each team can have a Catcher; the team scores a point if they can successfully pass the ball to the catcher.

Who is involved?

How to use CCE?

Physical & Health Education

Links to the continuous and comprehensive assessment framework and health & fitness

- An appreciation and understanding of the physical fitness requirements of games playing
- An involvement in sports/physical education programmes
- Team work
- A knowledge of different games and rules of the games
- Skills of agility, balance and coordination
- Motivation and commitment to take part in the game
- Ability to lead others as a team captain, coach or referee
- An awareness of rules of safety
- An evidence of being self disciplined

GAMES

Social Health Safety & Security

1. Moto skills & rhythm
2. Leader Followers & Sportsmanship
3. Physical Fitness and Its Components.
4. Sports Skill for Recreation & Competition.
5. Emotional Development
6. Purchasing, Consuming & Preserving Food.
7. Purchasing, Consuming & Preserving Food.
8. Protection of Self & Others.
9. Peer & Social Pressures.
10. Adapting To Situations.
11. Sports Scholarship & Award
12. Role of Media & Advertising
13. Precautions while taking medicines.
14. Agencies promoting health & games & sports

Real life skills being learnt

Life Skills

- Listen actively
- Takes criticism positively
- Communicate using appropriate words, intonations and body language
- Identifies one's own strengths and weaknesses

STEP

Game under the category

Outcome expected

Classes for which best suited

Why this activity

Learning Level of the game

Skills being tought

Practice of the skills taught

Invasion Games Basketball

Class VI-VIII

COMPETENCY LEVEL

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

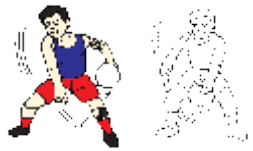
The outcome of participating in these activities will be:

- team spirit • cooperation • communication • a focus on winning

Skills

Dribbling

One-handed bounce at waist level. Bounce the ball at the side, with pumping action of the arm. Avoid looking at the ball when dribbling. Keep the body balanced and use the fingers when dribbling.



Passing

The bounce pass:

- Hold the boll with both hands in front of chest.
- Throw the ball so that it bounces 2/3rds of the distance to the receiver.

The chest pass:

- Hold the ball with fingers only. Palm should not touch the ball.
- Step forward and push the ball from both hands at chest height.
- Finish with arms extended in front of body.

The overhead pass:

- Hold the boll with both hands above and just behind the head.
- Use the wrists to push the ball forwards using minimal back movement to pass the ball.
- Follow through, bring the opposite let forward in order to add momentum to the pass.

Here are some practices

Dribbling

Practice dribbling individually:

- while stationary, while moving in open and confined spaces, forwards, backwards and swerving around obstacles and/or other players.

Passing and Receiving a ball

In pairs and/or threes pass and receive a ball using chest, overhead and bounce passes, while stationary, while moving from one end of a playing area to another, combining dribbling and passing.

In small groups in a circle formation use chest and bounce passes to pass the ball to any member of the circle, pass and follow the ball, pass the ball to a player in the middle of the circle.

Scoring

Teach students how to score points by hitting at, or into baskets or other targets.

Begin close to the basket or target, and after every time a goal is scored take a step back. After every miss move closer to the basket or target.

Invasion Games Basketball

Class VI-VIII

COMPETENCY LEVEL

Application of skills learnt during a game situation?

Try some of these mini games and activities

2 v 1 games

Two attacking players pass and receive the ball as many times as they can before the ball is intercepted by the middle player. Count the number of successful passes until the middle player successfully intercepts the ball. Change roles.

3 v 3 games

a) Play in available playing area. Teams should wear bands or bibs so they can identify their team mates. A team scores one point if it can pass the ball 5 times continuously without the other team getting the ball.

The game of Basketball: 5 v 5 games

Condition the games to reinforce skill learning

a) A player who wins the ball must try to take it past at least two opponents before passing or scoring.

b) Pass using only specified passes e.g. overhead passes. Dribble using a specific hand only- left or right.

c) As a team make 5 passes before the ball can be dribbled or a shot can be taken.

Mini Games:

"Dribbling Races". Divide players into groups of 4 or 5 and give each player their own ball. They simply relay race from point A to point B, stressing speed and control.

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 you play for? How will you make sure that everyone is involved in the game?

Try own your games

Assessment

How to evaluate

Knowledge (8)	• History of the game • Facts	• Rules • Health & fitness
Skills (6)	• Dribbling • Shooting	• Passing and receiving • Dodging/marking
Application of skills (6)	• Use of dribbling to dodge and move • Ability to pass and receive accurately on the move • Ability to make space and use space • Ability to mark and defend	

Links to NCERT syllabus

Link with NCERT & CBSE Sylabus

Theme: Health and physical fitness and orientation to sports skills

Links to other subjects

Suggested links to different subjects

Maths : Concept of fractions and rational numbers: 'n' = number of chances given to a player to score a goal; 'x' = number of times a player scores a goal: 'y' = number of misses.

Language: Use of verbs: in relay races students take it in turns to dribble a ball and shoot at a target. Having been successful the student picks a verb from container and must say the participle of the verb before dribbling the ball back to the next player in the team.

No card or set of cards can include every activity, practice or idea for every game, activity or sport. At best they provide examples only of the types of activities and tasks that might be included if students are to make progress and achieve well in different sports, activities and events. Teachers will need to add their own ideas to challenge their students further and ensure the activities and task they are engaged in are appropriately challenging and suitably motivating for all their students. In essence as students learn and make progress they should spend time:

- developing the skills, techniques and movements that are specific to the activity, game or event;
- making decisions about the tactics, strategies and choreographic choices they make to bring about the desired outcomes;
- improving their specific fitness and general fitness to play games and participate in performances and event;
- watching other's and learning to improve their own performances;
- using the technical language of the subject and talking to other's about what they are doing and seeing;
- performing in final outcomes: playing competitive games at intra and interschool level; performing to audiences and solving problems and overcoming challenges.

In additional time should be given to assessing students against the criteria shown on the cards.

EVALUATION

This is the one of the most important aspects of the entire program me as children are always competitive and keen to know where they stand in the class. It also is a motivation for them and adds weightage in their report card. So it is suggested that the following break up may be made

In one year 100 marks may be allotted for the PE program

(1) Five activity areas are to be taught during the year.

(2) The break up will be for one activity are will be 20 marks i.e.

(i) Knowledge-8 marks. The objective method of setting a paper can be used in which there will be one word answers, true and false and matching.

(ii) Skills -6 marks. The skills that are taught can be tested using the reciprocal method as explained.

The Reciprocal method of evaluation may be used. In this method the children are divided into small groups of three's. The test which for example may be wall pass test in basketball, out of the three children one will be the doer (person performing the test),the other will be the scorer or the person who counts the correct passes made and the

last one will be the recorder i.e he will record the passes on a paper against the name of the performer. Now the positions will change i.e. doer becomes the scorer, scorer becomes the recorder and the recorder becomes the doer. The teacher will transfer theses scores into grades

(iii) Application of skills-6 marks. This will include 3 marks for application of skills during game situation in INTRA section matches. 3 marks for application of skill during INTRA class matches.

(3) The marks will be converted into grades i.e. A, B, C.

(4) The grades will be included in the report card.

(5) Evaluation will be conducted at the end of each term.

ALLOTMENT OF PERIODS FOR PHYSICAL EDUCATION ACTIVITIES

In the first term there will be 2 activities and 2 activities in the second term & 1 activity during breakable vacation period (4-7 days should be devoted)

Each activity will be allotted 50 periods a year in which

(i) 10 periods will be for knowledge (this will include history of the game/activity, dimensions, equipment and simple rules

(ii) 10 periods for skills (this will include all the basic skills)

(iii) 15 periods for application of the skills in the game situation.

(iv) 15 periods for evaluation and intra class competition

Organising Physical Education lessons so that all students are involved and active

Pictures of children doing activities in large group to be taken during pilot

Including all children

PEC Ability Pictures
Page 2-9
Page 12-18

Links with other subjects

As well as having its own distinct contribution to student's learning, physical education can provide wider learning opportunities for students. In particular it can provide real, meaningful, practical contexts in which to apply learning in other subjects.

Teachers should consider the extent to which the physical education curriculum can contribute to the development of:

- Language learning
- Mathematics understanding
- Science
- ICT
- Life skills:
  - thinking skills
  - social skills
  - emotional skills
- Attitudes and Values towards:
- teachers
- school
- school programmes
- environment

If links between subjects are to be real and meaningful teachers will need to:

- plan together to ensure that learning about a particular aspects or subject will happen at the same time in all the subjects concerned or that learning in one subject will follow logically to another,
- know what it is they want their students to learn and how each subject will contribute to and extend this learning,
- help students to make the connections and see the links between learning in one subject and another,
- make links that are relevant and purposeful and will confirm, extend and improve learning. Links should not be made for the sake of it. Students should understand the relevance of the activities in the different subjects to their learning and understanding.

Linking subjects should be seen as a two way process. There are times when learning in a subject like mathematics can be developed and consolidated through its practical application during a physical education lesson. There will be other occasions when actions that have been learned in physical education can be used to inform class based activities in subjects like science and ICT. There may also be occasions when teacher's of subjects like science and mathematics might use practical physical education activities as real contexts to explain, develop and confirm learning. In all cases students should see the connexions that are being made and understand the relevance of what they are learning in one subject to the other. The key to the successful linking of subjects is the way in which learning in one subject is developed and used in another. This can only happen if similar learning takes place at the same time. This requires teachers to plan together to ensure that what is learnt in one subject will have maximum benefit to the other.

This document can only provide a small selection of examples of how links can be made between activities in physical education and other subjects. Teachers should use their expertise and understanding of their own subjects to create engaging ways in which learning can take place across and between subjects. In addition each SPEC card provides two examples of how learning in PE can be used to enhance learning in subjects like mathematics, English, Science and Environmental Studies.

Language for Learning

Students should be taught to express themselves correctly, both orally and through the written word, in different languages and should be taught and use the technical and specialised language of the subject of physical education during PE lessons and when talking about sports and activities in other subjects. Students should use correct spellings of the technical language of physical education.

Students should be taught to listen to others, responding appropriately and building on their ideas and views constructively.

Mathematics

Activities like athletics and adventure activities provide opportunities for students to use mathematical concepts in active contexts. For example activities that use orienteering enable students to develop the skills of using grid references and bearings. Collecting data on times, distances and the analysis of games, and interpreting it to help understanding of performance, is important in both athletic activities and games activities. Students understanding of the principles of movement can be enhanced by using number to understand concepts related to applying forces to produce such things as momentum and stability.

Science

There are many opportunities for students to apply scientific learning during physical education lessons. Through a range of

athletic activities students can be given opportunities to apply and develop their understanding of such things as motion, acceleration, forces, gravity and friction. Students should be given opportunities to use their understanding of scientific principles to improve their times and distances when running, jumping and throwing.

Information technology

Through physical education activities students can be provided with opportunities to use video cameras and photographs to record performances, review and improve them. Students should also use data that they gather during PE lessons to set up data bases, interrogate data and create graphs, tables and diagrams and estimate and use such things as the mean, median and range of sets of grouped data.

Life Skills

Thinking Skills

During physical education lessons students should be provided with time and opportunities to develop:

- Information processing skills: sorting, classifying, sequencing, comparing and contrasting;
- Reasoning skills: giving reasons for opinions and actions, drawing inferences and making judgments and decisions informed by reason or evidence;
- Enquiry skills: asking relevant questions, posing and answering problems, planning what to do, predicting outcomes and anticipating consequences;
- Creative-thinking skills: generating and extending ideas, applying imagination and looking for alternative innovative outcomes, being original, flexible and imaginative;
- Evaluation skills: evaluating information and developing criteria for judging the success of their own and other's work or ideas, implementing well thought out decisions.

Social skills

The active participation of students in a range of individual, group and team situations provides opportunities for them to develop their ability to get along with others, listen attentively and actively and respond to and work with others in cooperative and competitive situations. Students also have the opportunity to deal with their own emotions and those of other's for example when on the winning or losing team or when under pressure to perform well in front of audiences.

Emotional skills

Participating in enjoyable physical activities provides opportunities for students to:

- identify their own strengths and weaknesses;
- express and respond to emotions with an awareness of the consequences;
- engage with their friends in enjoyable activity as an means of dealing with stress.

Examples of links between Science and Physical Education

Competency Level

Paths of projectiles

Students are taught that when implements such as javelins are released or athletes leave the ground they begin to fall because gravity changes their direction of motion. Students learn that to travel or throw greater distances requires initial movement to be upward and forwards.

Athletics

Students use their understanding of gravity and the path of projectiles to improve their ability to jump high (short and steep parabola), long jump (long and long parabola) and throw shots and javelins.

Proficiency Level

Students are taught high level skills, strategics and their application during competed sports.

Science Lesson

Action-Reaction

Students learn about Newton's Third Law of Reaction and are provided with examples of this law in practice. For example during a lesson students might go to the ground to experience action-reaction through undertaking spring starts.

Swimming Lesson

Students use their understanding of action-reaction to improve their ability to move effectively through water. They extend their learning to include an understanding of the effect of poor arm movements (action) on the alignment of the lower body (reaction). They learn to adjust their arm movements to improve body alignment which in turn improves speed through the water.

The contribution Physical Education can make to Continuous and Comprehensive Assessment (CCE) Health & Fitness

During physical education lessons there are many opportunities for students to develop the wider life skills included in the CBSE continuous and comprehensive assessment framework. When performing with others and participating in competitive games and events students have a range of opportunities to develop thinking skills, social skills, emotional skills and a number of attitudes and values as defined in the framework. In addition learning in physical education should enable teacher's to assess student's knowledge and application of the Physical and Health Education/Games assessment criteria as detailed in the framework.

When planning, teachers should include planned opportunities for students to learn, develop and reflect on ways in which they have used thinking skills, social skills and emotional skills in and through physical education. Time should be given to the development of these life skills and activities set up in ways that will encourage the development of them. For example, if we want students to learn how to raise questions, identify and analyse problems they must be given time to do these things. In addition the way in which activities and challenges are set should allow students to develop the required skills. For example, if we want students to analyse problems it is necessary to set problems that have different solutions and engage students in conversations with each other about why some solutions were successful and other's weren't and which solution is most likely to be successful and why. Directing students to solve a problem in a specific way will not enable them to analyse and solve them using their own ideas and solutions.

Similarly there are many opportunities for students to act in leadership roles: as coaches, judges, officials, organisers. Providing these experiences can make a significant contribution to the assessment of 'displays leadership skills', a skill/attitude assessed under 'Towards School Programmes',

If planned appropriately physical education can make a significant contribution to CCE. In particular is should provide opportunities for students to develop and be assessed in most of the following:

Physical and Health Education/Games (1B)

Students show:

- An appreciation and understanding of good physical health and physical fitness
- An involvement in sports/physical education programmes
- Team work
- A knowledge of different sports and rules of games

- Motivation and leadership
- Skills of coordination, agility and balance
- An awareness of rules of safety
- An evidence of being self disciplined

(A blank assessment recording sheet for Physical and Health Education/Games is included in Appendix 3)

LIFE SKILLS

Thinking skills: self awareness, problem solving, dealing with stress

Students demonstrate the ability to:

- be original, flexible and imaginative
- raise questions, identify and analyze problems
- implement a well- thought out decision and take responsibility
- generate new ideas with fluency
- elaborate/build on new ideas

Social skills: interpersonal relationships, decision making, creative thinking

Students demonstrate the ability to:

- identify, verbalize and respond effectively to others' emotions in an empathetic manner
- get along well with others
- take criticism positively
- listen actively
- communicate using appropriate words, intonation and body language

Emotional skills: managing feelings/emotions, communication skills, empathy

Students demonstrate the ability to:

- identify one's own strengths and weaknesses
- be comfortable with one's own self and overcome weaknesses for positive self-concept
- identify causes and effects of stress on oneself
- develop and use multi-faceted strategies to deal with stress
- ability to express and respond to emotions with an awareness of the consequences.

Attitudes and Values

Towards teachers

- Shows respect and courtesy at all times inside and outside the classroom
- Demonstrates attitudes that are positive and conducive to learning
- Takes criticism in the right spirit
- Respects and follows class teacher and school rules

Towards school

- Shares a healthy rapport with peers/ mates
- Is able to interact effectively with classmates
- Is able to express/contribute ideas and opinions in a group
- Is receptive to ideas and opinions of others in a group
- Respects and is sensitive to differences among peers in - ability, religious beliefs, gender, culture etc.
- Is kind and helpful
- Is able to inspire members of the class or peer group

Towards School Programmes

- Is punctual and regular in attending school programmes
- Participates and volunteers often school programmes
- Delivers a job assigned effectively and responsibly
- Displays a healthy school spirit
- Displays leadership skills
- Inspires others to participate in school programmes

Towards Environment

- Respects school property
- Aware of / sensitive to the threats posed to nature by mankind, shows responsibility towards the environment, is environmentally sensitive
- Participates in school driven activities relating to care for the environment
- Participates in community driven activities relating to care for the environment
- Takes the initiative and plans activities directed towards the betterment of the environment
- Cares for others, respect life, respect Mother Earth, love for one's own country.

Value Systems

- Understands the need for rules and follows them
- Honest and ethical exhibits Integrity
- Has Self - respect
- Polite, courteous to everyone
- Exhibits leadership
- Respects diversity (culture, opinions, beliefs, abilities), respects the opposite sex
- Shows a kind, helpful and responsible behaviour/attitude
- Displays commitment and an open mind
- Works efficiently, respects time, his/ her own and others'
- Displays a positive attitude towards peers, adults and community; seeks and provides solutions.
- Is a responsible member of the community, displays spirit of citizenship, is conscious of his responsibility towards the community specially the underprivileged members
- Peace loving; Strives for conflict management in all stressful situations
- Ability to find happiness within oneself

Aesthetic Skills and Performing Arts

- Participates actively in activities that involve arts (visual and performing) at school/ inter school/state/ national/international levels
- Takes the initiative to plan and drive various creative events like plays, art competitions, mural painting, dances, music festivals etc.

Adventure Sports

GAMES AND SPORTS

Sport (or **sports**) is all forms of usually competitive physical activity which, through casual or organised participation, aim to use, maintain or improve physical ability and skills while providing entertainment to participants, and in some cases, spectators. Hundreds of sports exist, from those requiring only two participants, through to those with hundreds of simultaneous participants, either in teams or competing as individuals.

Sport is generally recognised as activities which are based in physical athleticism or physical dexterity, with the largest major competitions such as the Olympic Games admitting only sports meeting this definition, and other organisations such as the Council of Europe using definitions precluding activities without a physical element from classification as sports. However, a number of competitive, but non-physical, activities claim recognition as mind sports. The International Olympic Committee (through ARISF) recognises both chess and bridge as *bona fide* sports, and Sport Accord, the international sports federation association, recognises five non-physical sports, although limits the amount of mind games which can be admitted as sports.

Sports are usually governed by a set of rules or customs, which serve to ensure fair competition, and allow consistent adjudication of the winner. Winning can be determined by physical events such as scoring goals or crossing a line first, or by the determination of judges who are scoring elements of the sporting performance, including objective or subjective measures such as technical performance or artistic impression.

In organised sport, records of performance are often kept, and for popular sports, this information may be widely announced or reported in sport news. In addition, sport is a major source of entertainment for non-participants, with spectator sport drawing large crowds to venues, and reaching wider audiences through broadcasting.

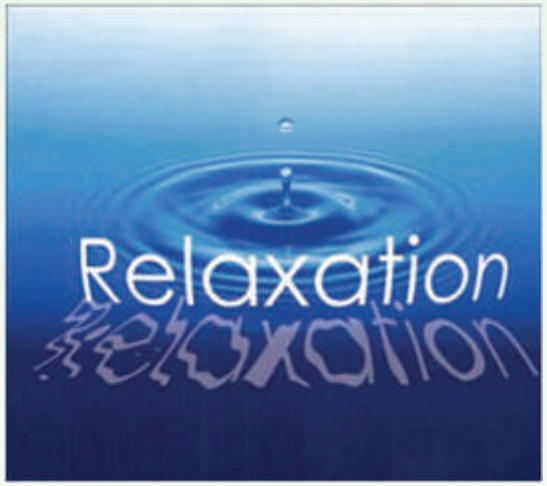
A **game** is structured playing, usually undertaken for enjoyment and sometimes used as an educational tool. Games are distinct from

work, which is usually carried out for remuneration, and from art, which is more often an expression of aesthetic or ideological.

elements. However, the distinction is not clear-cut, and many games are also considered to be work (such as professional players of spectator sports/games) or art (such as jigsaw puzzles or games involving an artistic layout such as Mahjong, solitaire, or some video games).

Key components of games are goals, rules, challenge, and interaction. Games generally involve mental or physical stimulation, and often both. Many games help develop practical skills, serve as a form of exercise, or otherwise perform an educational, simulation, or psychological role.

RELAXATION



A **relaxation technique** (also known as **relaxation training**) is any method, process, procedure, or activity that helps a person to relax; to attain a state of increased calmness; or otherwise reduce levels of anxiety, stress or anger. Relaxation techniques are often employed as one element of a wider stress management program and can decrease muscle tension, lower the blood pressure and slow heart and breath rates, among other health benefits.

People respond to stress in different ways, namely, by becoming overwhelmed, depressed or both Yoga, Qi Gong, Taiji, and other techniques that include deep breathing tend to calm people who are overwhelmed by stress, while rhythmic exercise improves the mental and physical health of those who are depressed. People who encounter both symptoms simultaneously, feeling depressed in some ways and overexcited in others, may do best by walking or performing yoga techniques that are focused on strength.

ETHICS IN SPORTS

Ethics in sport requires four key virtues: fairness, integrity, responsibility, and respect.

Fairness

- All athletes and coaches must follow established rules and guidelines of their respective sport.
- Teams that seek an unfair competitive advantage over their opponent create an uneven playing field which violates the integrity of the sport.
- Athletes and coaches are not discriminated against or excluded from participating in a sport based on their race, gender, or sexual orientation.
- Referees must apply the rules equally to both teams and cannot show bias or personal interest in the outcome.

Integrity

- Similar to fairness, in that any athlete who seeks to gain an advantage over his or her opponent by means of a skill that the game itself was not designed to test demonstrates a lack of personal integrity and violates the integrity of the game. For example, when a player fakes being injured or fouled in soccer, he or she is not acting in a sportsmanlike manner because the game of soccer is not designed to measure an athlete's ability to flop. Faking is a way of intentionally deceiving an official into making a bad call, which only hurts the credibility of the officiating and ultimately undermines the integrity of the game.

Responsibility

- To be sportsmanlike requires players and coaches to take responsibility for their performance, as well as their actions on the field. This includes their emotions.

- Many times athletes and coaches will make excuses as to why they lost the game. The most popular excuse is to blame the officiating. The honorable thing to do instead is to focus only on the aspects of the game that you can control, i.e. your performance, and to question yourself about where you could have done better.
- Responsibility requires that players and coaches be up to date on the rules and regulations governing their sport.
- Responsibility demands that players and coaches conduct themselves in an honorable way off the field, as well as on it.

Respect

- All athletes should show respect for teammates, opponents, coaches, and officials.
- All coaches should show respect for their players, opponents, and officials.
- All fans, especially parents, should show respect for other fans, as well as both teams and officials.

The sportsmanship model is built on the idea that sport both demonstrates and encourages character development, which then influences the moral character of the broader community. How we each compete in sports can have an effect on our personal moral and ethical behavior outside of the competition.

Some argue for a "bracketed morality" within sports. This approach holds that sport and competition are set apart from real life, and occupy a realm where ethics and moral codes do not apply. Instead, some argue, sports serves as an outlet for our primal aggression and a selfish need for recognition and respect gained through the conquering of an opponent. In this view, aggression and victory are the only virtues. For example, a football player may be described as mean and nasty on the field, but kind and gentle in everyday life. His violent disposition on the field is not wrong because when he is playing the game he is part of an amoral reality that is dictated only by the principle of winning.

An ethical approach to sport rejects this bracketed morality and honors the game and one's opponent through tough but fair play. This means understanding the rules and their importance in encouraging respect for your opponent, which pushes you to be your best.

ILLNESS AND DISEASE

Disease - best refers to an abnormal condition affecting an organism. This abnormal condition could be due to infection, degeneration of tissue, injury/trauma, toxic exposure, development of cancer, etc. This is what needs to be 'cured', especially if it's life-threatening.

Illness - best refers to the feelings that might come with having a disease. Feelings like pain, fatigue, weakness, discomfort, distress, confusion, dysfunction, etc. - the reasons people seek healthcare - and usually the way people measure their success

with treatment.

It's very important to understand that feelings of illness can be vastly affected by many *non-disease* factors, such as expectations, beliefs, fears, feelings/moods, and culture. Being ill is a very personal experience, and can vary tremendously and be affected by very different things between people with the same 'disease'.

COMMUNICABLE AND NON COMMUNICABLE DISEASE

Communicable diseases, comprise clinically evident illness (i.e., characteristic medical signs and/or symptoms of disease) resulting from the **infection**, presence and growth of pathogenic biological agents in an individual host organism.

Infections are caused by infectious agents such as viruses, viroids, and prions, microorganisms such as bacteria, nematodes such as roundworms and pinworms, arthropods such as ticks, mites, fleas, and lice, fungi such as ringworm, and other macro parasites such as tapeworms.

Hosts can fight infections using their immune system. Mammalian hosts react to infections with an innate response, often involving inflammation, followed by an adaptive response. Pharmaceuticals can also help fight infections

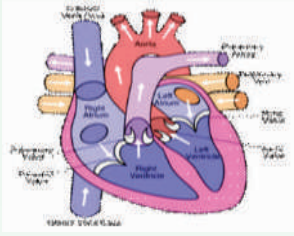
A **non-communicable disease, or NCD**, is a medical condition or disease which by definition is non-infectious and non-transmissible among people. NCDs may be chronic diseases of long duration and slow progression, or they may result in more rapid death such as some types of sudden stroke. They include autoimmune diseases, heart disease,stroke, many cancers, asthma, diabetes, chronic kidney disease, osteoporosis, Alzheimer's disease, cataracts, and more. While sometimes (incorrectly) referred to as synonymous with "chronic diseases", NCDs are distinguished only by their non-infectious cause, not necessarily by their duration. Some chronic diseases of long duration, such as HIV/AIDS, are caused by transmittable infections. Chronic diseases require chronic care management as do all diseases that are slow to develop and of long duration.

The World Health Organization (WHO) reports NCDs to be by far the leading cause of death in the world, representing over 60% of all deaths. Out of the 36 million people who died from NCDs in 2005, half were under age 70 and half were women.[1] Of the 57 million global deaths in 2008, 36 million were due to NCDs.[2] That is approximately 63% of total deaths worldwide. Risk factors such as a person's background, lifestyle and environment are known to increase the likelihood of certain NCDs. Every year, at least 5 million people die because of tobacco use and about 2.8 million die from being overweight. High cholesterol accounts for roughly 2.6 million deaths and 7.5 million die because of high blood pressure.

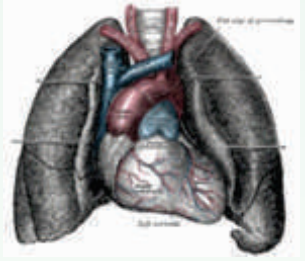
SYSTEMS OF HUMAN BODY

The **nervous system** consists of the central nervous system (the brain and spinal cord) and the peripheral nervous system. The brain is the organ of thought, emotion, memory, and sensory processing, and serves many aspects of communication and controls various systems and functions. The **special senses** consist of vision, hearing, taste, and smell. The eyes, ears, tongue, and nose gather information about the body's environment.

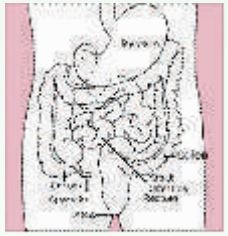
The **musculoskeletal system** consists of the human skeleton (which includes bones, ligaments, tendons, and cartilage) and attached muscles. It gives the body basic structure and the ability for movement. In addition to their structural role, the larger bones in the body contain bone marrow, the site of production of blood cells. Also, all bones are major storage sites for calcium and phosphate. This system can be split up into the muscular system and the skeletal system.



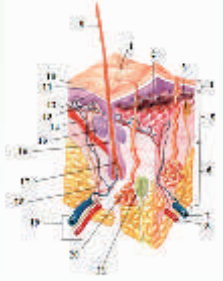
The **circulatory system** or **cardiovascular system** comprises the heart and blood vessels (arteries, veins, and capillaries). The heart propels the circulation of the blood, which serves as a "transportation system" to transfer oxygen, fuel, nutrients, waste products, immune cells, and signalling molecules (i.e., hormones) from one part of the body to another. The **blood** consists of fluid that carriescells in the circulation, including some that move from tissue to blood vessels and back, as well as the spleen and bone marrow.



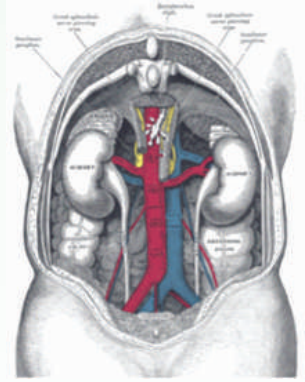
The **respiratory system** consists of the nose, nasopharynx, trachea, and lungs. It brings oxygen from the air and excretes carbon dioxide and water back into the air.



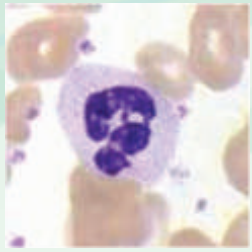
The **digestive system** consists of the mouth including the tongue and teeth, esophagus, stomach, gut (gastrointestinal tract, small and large intestines, and rectum), as well as the liver, pancreas, gallbladder, and salivary glands. It converts food into small, nutritional, non-toxic molecules for distribution by the circulation to all tissues of the body, and excretes the unused residue.



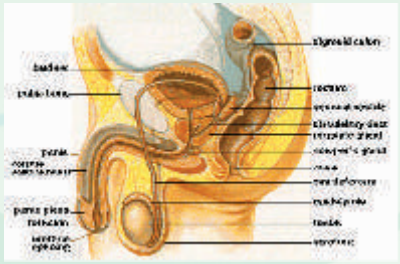
The **integumentary system** consists of the covering of the body (the skin), including hair and nails as well as other functionally important structures such as the sweat glands and sebaceous glands. The skin provides containment, structure, and protection for other organs, but it also serves as a major sensory interface with the outside world.



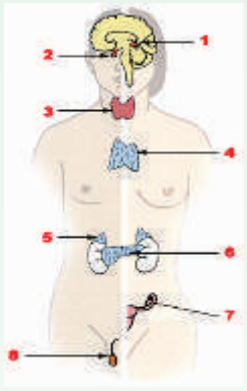
The **urinary system** consists of the kidneys, ureters, bladder, and urethra. It removes water from the blood to produce urine, which carries a variety of waste molecules and excess ions and water out of the body.



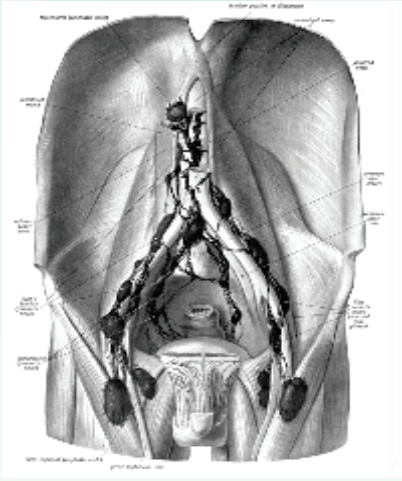
The **reproductive system** consists of the gonads and the internal and external sex organs. The reproductive system produces gametes in each sex, a mechanism for their combination, and a nurturing environment for the first 9 months of development of the infant



The **immune system** consists of the white blood cells, the thymus, lymph nodes and lymph channels, which are also part of thelymphatic system. The immune system provides a mechanism for the body to distinguish its own cells and tissues from alien cells and substances and to neutralize or destroy the latter by using specialized proteins such as antibodies, cytokines, and toll-like receptors, among many others.



The main function of the **lymphatic system** is to extract, transport and metabolize lymph, the fluid found in between cells. The lymphatic system is very similar to the circulatory system in terms of both its structure and its most basic function (to carry a body fluid).



The **endocrine system** consists of the principal endocrine glands: the pituitary, thyroid, adrenals, pancreas, parathyroids, and gonads, but nearly all organs and tissues produce specific endocrine hormones as well. The endocrine hormones serve as signals from one body system to another regarding an enormous array of conditions, and resulting in variety of changes of function. There is also theexocrine system.

WASTE SEGREGATION AND MANAGEMENT

Certain things that are not needed around the house are kept aside to be sold to the *kabadiwala* or the man who buys old items. These items are newspapers, used bottles, magazines, carry bags, old exercise books, oilcans, etc. This is one form of segregation, which is done as a routine in all households in India. Separating our waste is essential as the amount of waste being generated today causes immense problem. Segregation of municipal solid waste can be clearly understood by schematic representation. Certain items are not biodegradable but can be reused or recycled. In fact, it is believed that a larger portion can be recycled, a part of it can be converted to compost, and only a smaller portion of it is real waste that has no use and has to be discarded.

Household waste should be separated daily into different bags for the different categories of waste such as wet and dry waste, which should be disposed of separately. One should also keep a bin for toxic wastes such as medicines, batteries, dried paint, old bulbs, and dried shoe polish. Wet waste, which consists of leftover foodstuff, vegetable peels, etc., should be put in a compost pit and the compost could be used as manure in the garden. Dry waste consisting of cans, aluminium foils, plastics, metal, glass, and

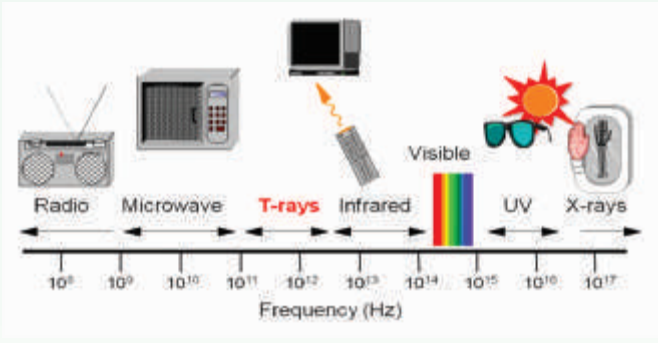
paper could be recycled. If we do not dispose of the waste in a more systematic manner, more than 1400 sq. km of land, which is the size of the city of Delhi, would be required in the country by the year 2047 to dispose of it.

Door-to-door collection of waste is another method of segregation, but it is not a common practice as yet in India except in the metros where some private organizations are doing such work. The rag picker plays a very important part in the segregation of waste.

It is now becoming more and more essential to look for methods by which the garbage load on the land can be reduced. It has been seen that at present segregation of waste at source level seems to be the best.

A large number of NGOs (non-governmental organizations) are working in the field of solid waste management such as Clean Ahmedabad Abhiyan in Ahmedabad, Waste-Wise in Bangalore, Mumbai Environmental Action Group in Mumbai, and Vatavaran and Srishti in Delhi. They are all successfully creating awareness among the citizens about their rights and responsibilities towards solid waste and the cleanliness of their city. These organizations promote environmental education and awareness in schools and involve communities in the management of solid waste.

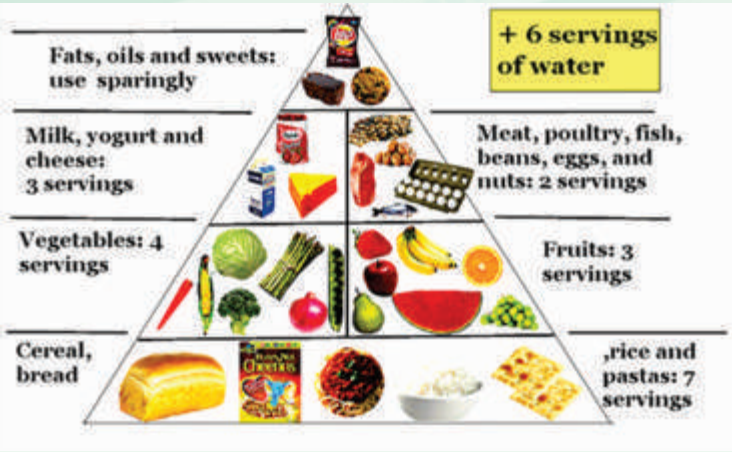
EFFECTS OF INSECTISIDES, PESTICIDES, ELECTROMAGNETIC AND NUCLEAR RADIATION ON OUR FOOD



Pesticides and insecticides have long been used to keep bugs away from plants. Although it might seem like an easy solution for dealing with pesky insects that might otherwise kill a tomato plant or field of corn, the chemicals contained in pesticides can have devastating effects on the environment and on human health. These pesticides can also stay in the soil and water for years after their use is discontinued, causing harm for decades.

Exposing food to radiation doesn't always make it harmful to human health. Fruit and vegetables are often irradiated to increase their shelf life. Food products that contain radioactive nuclei, which are subatomic particles that emit gamma rays, can be toxic and may cause cancer.

NEED OF DIETARY PLANNING



So it's that time of the year again…dreaded for some. Yes, it's SUMMER. For those of us that kept up with our fitness and diet through winter and spring…have no fear. For the rest of us, it's crunch time. Diet contributes to every health problem we can possibly have. As Americans, we have little portion control, eat unhealthy foods and we do not plan our meals. Top health risks involve our heart (heart attack, stroke, and arteriosclerosis) and the most preventive thing we can do is change our lifestyle and diet.

What is Diet?

Diet isn't necessarily a mainstream trend to lose weight quickly. Diet is our daily intake of food and the key to a successful diet is planning. Do you know what you eat daily? A challenge for you: take the next 2 weeks and log EVERY item you eat or drink into a diary. I guarantee surprise at the end of those two weeks to see what you put into your mouth (and therefore your body).

Back to my main purpose, the key to successful and lifelong diet changes: planning meals and keeping a food diary. This helps to maintain weight as well as lose weight. There are hundreds of tracking sites online that keep track of calories, exercise and all other nutritional information. Fatsecret.com is a wonderful tool that keeps up to 6 different nutrition facts for you including fat, protein, fiber, etc.

What to Record?

"Calories" are scary, but we don't realize that the word "calorie" is just another word for energy. Calories are composed of everything on a nutrition label. There are "empty calories" that are from fats, sugars and other non-healthy ingredients. No matter whether calories are empty or not, they need to be recorded. Other nutritional information that should be recorded:

- Fat (Including saturated, monounsaturated, polyunsaturated and trans fats)
- Cholesterol and Potassium

- Carbohydrates (Fiber, Sugars)
- Proteins
- Sodium

How to Plan a Diet?

Most everyone can give an hour by hour plan of our day. What time practice is, when lunch is, what we are doing a week from now. But we can't say what we'll be having on our lunch break or what we are making for dinner tonight.

Take a day over the weekend and plan the meals for the week, including portion sizes. Weigh and measure all foods to see what a portion size is. Yes, it will take a little longer, but in 2 months you will feel and look better (and you'll be able to see portions without those scales or measurers). Once the planning and shopping is done, the recording is already there, killing two birds with one stone.

Bottom line, if working on a new life diet, planning and tracking food intake is essential to learning about what we are eating and how much we are consuming. Planning weekly meals, portions and then tracking everything with a food diary are proven tools to help reach or maintain goals.

COMMUNITY EDUCATION

Community education, also known as Community-based education or Community learning & development refers to an organization's programs to promote learning and social development work with individuals and groups in their communities using a range of formal and informal methods. A common defining feature is that programmes and activities are developed in dialogue with communities and participants. The purpose of community learning and development is to develop the capacity of individuals and groups of all ages through their actions, the capacity of communities, to improve their quality of life. Central to this is their ability to participate in democratic processes.

Community education encompasses all those occupations and approaches that are concerned with running education and development programmes within local communities, rather than within educational institutions such as schools, colleges and universities. The latter is known as the formal education system, whereas community education is sometimes called informal education. It has long been critical of aspects of the formal education system for failing large sections of the population in all countries and had a particular concern for taking learning and development opportunities out to socio-economically disadvantaged individuals and poorer areas, although it can be provided more broadly.

There are a myriad of job titles and employers include public authorities and voluntary or non-governmental organisations, funded by the state and by independent grant making bodies. Schools, colleges and universities may also support community learning and development through outreach work within communities. The community schools movement has been a strong proponent of this since the nineteen sixties. Some universities and colleges have run outreach adult education programmes within local communities for decades. Since the nineteen seventies the prefix word 'community' has also been adopted by several other occupations from youth workers and health workers to planners and architects, who work with more disadvantaged groups and communities and have been influenced by community education and community development approaches.

Community educators have over many years developed a range of skills and approaches for working within local communities and in particular with disadvantaged people. These include less formal educational methods, community organising and group work skills. Since the nineteen sixties and seventies through the various anti povertyprogrammes in both developed and developing countries, practitioners have been influenced by structural analyses as to the causes of disadvantage and poverty i.e. inequalities in the distribution of wealth, income, land etc. and especially political power and the need to mobilise people power to affect social change. Thus the influence of such educators as Paulo Friere and his focus upon this work also being about politicising the poor.

PROTECTION OF NATURAL RESOURCES FOR HEALTH

Preservation of natural environment is essential for maintain community sustainability. This section present various approaches and techniques used in different communities to protect and restore their natural resources.

Water: Adequate water supplies of high quality are important both for community use and eco system Communities and jurisdictions must work together to assure an adequate water supply to meet future needs. This section presents resources to aid in that effort.

Energy: Communities require energy. Nonrenewable sources for power generation, home and workplace, and transportation cause pollution and its harmful impacts. Energy conservation and the use of renewable fuels provide cost-effective and more sustainable alternatives. This section contains resources available to make energy use more efficient.

Air and Climate: Both the natural ecosystem and human health can be adversely impacted by declining air quality and climatic change. Communities can preserve air quality by limiting or eliminating the discharge of harmful chemicals into the air and by minimizing the sources of air pollution. This section contains resources and approaches that address air quality and climate change.

Biodiversity: Biodiversity is particularly important for creating sustainability because of the specialized roles each species plays in maintaining ecological balance. Communities can promote healthy wildlife by supporting integrative approaches for managing, protecting, and enhancing wildlife populations and habitats appropriate to their area. Some examples are given here.

Land, Forests, and Ecosystems: While providing a protective covering for soil, water, and the atmosphere, forests are also renewable sources of an endless variety of products. In a healthy ecosystem, policies and programs must balance economic and conservation needs. This section highlights cases where communities have developed.

ROLE OF INSTITUTION ON PROMOTING PUBLIC HEALTH

Administrative Management: PHIs often serve as a fiscal agent as well as an administrative home for the management of grants and contracts on behalf of, or in collaboration with, state and local public health partners

Population-Based Health Program Delivery: PHIs offer a range of capacity on current and emerging health topics.

Health Policy Development, Implementation, and Evaluation: As independent non-profit agencies, PHIs are uniquely situated to provide non-biased analysis and engage multiple stakeholders in discussion and action.

Training and Technical Assistance: PHIs provide training and technical assistance to communities in numerous ways, including technical assistance that supports community mobilization and sustainability for community-based organizations.

Research and Evaluation: Many PHIs have robust and diverse research and evaluation divisions and provide programmatic evaluation, as well as translation of existing data sources to inform health programs and policy.

Health Information Services: From health information technology to implementation of health data management systems, PHIs collaborate with multiple sectors to utlize health data to better address community health needs

Health Communications and Social Marketing: PHIs have experienced communications staffs that utilize social media-as well as strong relationships with journalists-to inform policymakers, stakeholders, and he public about health initiatives and issues.

Convening/Partnering: PHIs are uniquely situated to engage a broad range of stakeholders-from grassroots non-profits to government agencies-in discussion and action to make communities healthier.

OCCUPATIONAL HAZARD

A working condition that can lead to illness or death. Often, people in jobs which pose a high level of risk are paid more than similar but less risky jobs to compensate for the danger involved.

Danger to health, limb, or life that is inherent in, or is associated with, a particular occupation, industry , or work environment. Occupaional hazards include risk of accident and of contracting occupational diseases.

Classification: Occupational Hazards

A worker may be exposed to five types of hazards, depending upon his/her occupation:

- Physical Hazards
- Chemical Hazards
- Biological Hazards
- Mechanical Hazards
- Psychosocial Hazards
- Physical Hazards

1. **Heat and Cold:** In India, the most common physical hazard is heat. The direct effects of heat exposure are burns, heat exhaustion, heat stroke and heat cramps; the indirect effects are decreased efficiency, increased fatigue and enhanced accident rates. Many industries have local "hot spots" - ovens and furnaces, which radiate heat. Radiant heat is the main problem in foundry, glass and steel industries, while heat stagnation is the principal problem in jute and cotton textile. High temperatures are also found in mines. Physical work under such conditions is very stressful and impairs the health and efficiency of the workers. For gainful work involving sustained and repeated effort, a reasonable temperature must be maintained in each work room.

   Important hazards associated with cold work are chilblains, erythrocyanosis, immersion foot, and frostbite as a result of cutaneous vasoconstriction. General hypothermia is not unusual.

2. **Light:** The workers may be exposed to the risk of poor illumination or excessive brightness. The acute effects of poor illumination are eye strain, headache, eye pain, lachrymation, congestion around the cornea and eye fatigue. The chronic effects on health include "miners's nystagmus". Exposure to excessive brightness or "glare" is associated with discomfort, annoyance and visual fatigue. Intense direct glare may also result in blurring of vision and lead to accidents. There should be sufficient and suitable lighting, natural or artificial, wherever persons are working.

3. **Noise**

   Noise is a health hazard in many industries. The effects of noise are of two types:

   (i) Auditory effects - which consist of temporary or permanent hearing loss

   (ii) Non-auditory effects - which consist of nervousness, fatigue, interference with communication by speech, decreased efficiency and annoyance.

   The degree of injury from exposure to noise depends upon a number of factors such as intensity and frequency range, duration of exposure and individual susceptibility.

4. **Vibration:** Vibration, especially in the frequency range 10 to 500 Hz. May be encountered in work with pneumatic tools such as drills and hammers. Vibration usually affects the hands and arms. After some months or years of exposure, the fine blood vessels of the fingers may become increasingly sensitive to spasm (white fingers). Exposure to vibration may also produce injuries of the joints, of the hands, elbows and shoulders.

5. **Ultraviolet Radiation:** Occupational exposure to ultraviolet radiation occurs mainly in arc welding. Such radiation occurs mainly affects the eyes, causing intense conjunctivitis and keratitis (welder's flash). Symptoms are redness of the eyes and pain, these usually disappear in a few days with no permanent effect on the vision or on the deeper structures of the eye.

6. **Ionizing Radiation:** Ionizing radiation is finding increasing application in medicine and industry, e.g. x-rays and radio active isotopes. Important radio-isotopes are cobalt60 and phosphorus32. Certain tissues such as bonemarrow are more sensitive than others and from a genetic standpoint, there are special hazards when the gonads are exposed. The radiation hazards comprise genetic changes, malformation, cancer, leukaemia, depilation, ulceration, sterility and in extreme cases death. The International Commission of Radiological Protection has set the maximum permissible level of occupational exposure at 5 rem per year to the whole body.

Chemical Hazards

There is hardly any industry which does not make use of chemicals. The chemical hazards are on the increase with the introduction of newer and complex chemicals. Chemical agents act in three ways: local action, inhalation and ingestion. The ill-effects produced depend upon the duration of exposure, the quantum of exposure and individual susceptibility.

1. Local Action: Some chemicals cause dermatitis, eczema, ulcers and even cancer by primary irritant action; some cause dermatitis by an allergic action. Some chemicals, particularly the aromatic nitro and amino compounds such as TNT and aniline are absorbed through the skin and cause systemic effects. Occupational dermatitis is a big problem in industry.

2. Inhalation

   (i) Dusts - Dusts are finely divided solid particles with size ranging from 0.1 to 150 microns. They are released into the atmosphere during crushing, grinding, abrading, loading and unloading operations. Dusts are produced in a number of industries - mines, foundry quarry, pottery, textile, wood or stone working industries. Dust particles larger than 10 microns settle down from the air rapidly, while the smaller ones remain suspended indefinitely. Particles smaller than 5 microns are directly inhaled into the lungs and are retained there. This fraction of the dust is called "respirable dust", and is mainly responsible for pneumoconiosis. Dusts have been classified into inorganic and organic dusts; soluble and insoluble dusts. The inorganic dusts are silica, mica, coal, asbestos dust, etc.; the organic dusts are cotton, jute and the like. The soluble dusts dissolve slowly, enter the systemic circulation and are eventually eliminated by body metabolism. The insoluble dusts remain, more or less, permanently in the lungs. They are mainly the cause of pneumoconiosis. The most common dust diseases are silicosis and anthracosis

   (ii) Gases - Exposure to gases is a common hazard in industries. Gases are sometimes classified as simple gases (e.g. oxygen, hydrogen), asphyxiating gases (e.g. carbon monoxide, cyanide gas, sulphur dioxide, chlorine) and anesthetic gases (e.g. chloroform, ether, trichlorethylene). Carbon monoxide hazard is frequently reported in coal-gas manufacturing plants and steel industry.

(iii) Metals and their Compounds - A large number of metals and their compounds are used throughout industry. The chief mode of entry of some of them is by inhalation as dust or fumes. The industrial physician should be aware of the toxic effects of lead, antimony, arsenic, beryllium, cadmium, cobalt, manganese, mercury, phosphorus, chromium, zinc and others. The ill-effects depend upon the duration of exposure and the dose or concentration of exposure. Unlike the pneumoconiosis, most chemical intoxications respond favourably to cessation, exposure and medical treatment.

3. Ingestion: Occupational diseases may also result from ingestion of chemical substances such as lead, mercury, arsenic, zinc, chromium, cadmium, phosphorus, etc. Usually these substances are swallowed in minute amounts through contaminated hands, food or cigarettes. Much of the ingested material is excreted through faeces and only a small proportion may reach the general blood circulation.

Biological hazards

Workers may be exposed to infective and parasitic agents at the place of work. The occupational diseases in this category are brucellosis, leptospirosis, anthrax, hydatidosis, psittacosis, tetanus, encephalitis, fungal infections, schistosomiasis and a host of others. Persons working among animal products (e.g. hair, wool, hides) and agricultural workers are specially exposed to biological hazards.

Mechanical hazards

The mechanical hazards in industry centre round machinery, protruding and moving parts and the like. About 10% of accidents in industry are said to be due to mechanical causes.

Psychosocial hazards

The psychosocial hazards arise from the workers' failure to adapt to an alien psychosocial environment. Frustration, lack of job satisfaction, insecurity, poor human relationships, emotional tension are some of the psychosocial factors which may undermine both physical and mental health of the workers. The capacity to adapt to different working environments is influenced by many factors such as education, cultural background, family life, social habits and what the worker expects from employment.

The health effects can be classified in two main categories -

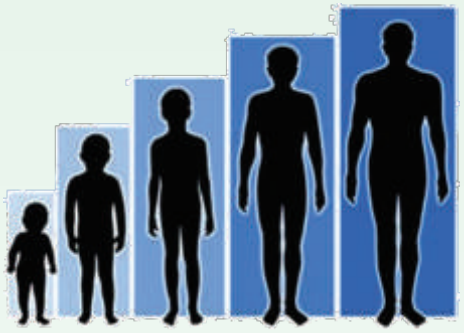
a) Psychological and behavioural changes - including hostility, aggressiveness, anxiety, depression, tardiness, alcoholism, drug abuse, sickness absenteeism

b) Psychosomatic illhealth - including fatigue, headache; pain in the shoulders, neck and back; propensity to peptic ulcer, hypertension, heart disease and rapid aging.

The physical factors (heat, noise, poor lighting) play a major role in adding to or precipitating mental disorders among workers. The increasing stress on automation, electronic operations and nuclear energy may introduce newer psychosocial health problems in industry. Psychosocial hazards are there fore assuming more importance than physical or chemical hazards.

Athletics

GROWTH AND DEVELOPMENT AND FACTORS AFFECTING IT



Definition of growth and development

Growth is the progressive increase in the size of a child or parts of a child. Development is progressive acquisition of various skills (abilities) such as head support, speaking, learning, expressing the feelings and relating with other people. Growth and development go together but at different rates.

Importance of assessing growth and development

The assessment of growth and development is very helpful in finding out the state of health and nutrition of a child. Continuous normal growth and development indicate a good state of health and nutrition of a child. Abnormal growth or growth failure is a symptom of disease. Hence, measurement of growth is an essential component of the physical examination.

Factors affecting growth and development

Each child's path or pattern of growth and development is determined by genetic and environmental factors. The genetic factors determine the potential and limitations of growth and development. If favorable, the environmental factors, such as adequate nutrition, facilitate the achievement of the genetic potential of growth and development. Unfavorable factors, acting singly or in combination, slow or stop growth and development. Some of the unfavorable factors are malnutrition, infections, congenital malformations, hormonal disturbances, disability, lack of emotional support, lack of play, and lack of language training. To promote optimum growth, these environmental factors can be removed or minimized. Once they are removed, there follows a period of catch up growth. During this period the growth rate is greater than normal. This growth rate continues until the previous growth pattern is reached. Then the growth rate is reduced to the normal rate determined by the individual's genetic factors. A child genetically determined to be tall grows slightly more rapidly than a child genetically determined to be short. Similarly, a child genetically determined to be clever develops their intellect more rapidly than a child genetically determined to be less intelligent.

CONCEPT OF BODY IMAGE

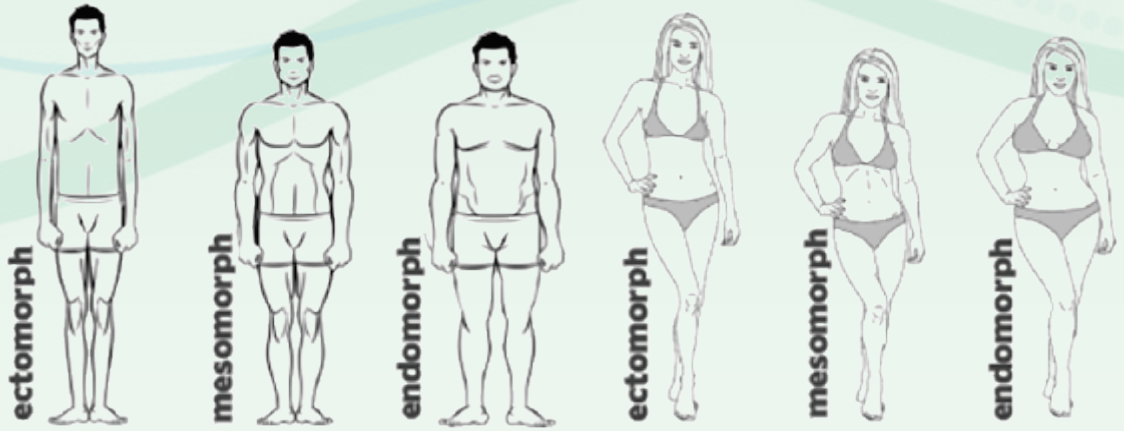


Image courtesy of Govt. of Western Aust. Dept. of Health

Body image is how you see yourself when you look in the mirror or when you picture yourself in your mind. It encompasses:

- What you believe about your own appearance (including your memories, assumptions, and generalizations).
- How you feel about your body, including your height, shape, and weight.
- How you sense and control your body as you move. How you feel in your body, not just about your body.

Negative Body Image

- A distorted perception of your shape--you perceive parts of your body unlike they really are.
- You are convinced that only other people are attractive and that your body size or shape is a sign of personal failure.
- You feel ashamed, self-conscious, and anxious about your body.
- You feel uncomfortable and awkward in your body.

Positive Body Image

- A clear, true perception of your shape--you see the various parts of your body as they really are.
- You celebrate and appreciate your natural body shape and you understand that a person's physical appearance says very little about their character and value as a person.
- You feel proud and accepting of your unique body and refuse to spend an unreasonable amount of time worrying about food, weight, and calories.
- You feel comfortable and confident in your body.
- Body Image and Eating Disorders

People with negative body image have a greater likelihood of developing an eating disorder and are more likely to suffer from feelings of depression, isolation, low self-esteem, and obsessions with weight loss.

We all may have our days when we feel awkward or uncomfortable in our bodies, but the key to developing positive body image is to recognize and respect our natural shape and learn to overpower those negative thoughts and feelings with positive, affirming, and accepting ones.

SEXUAL ABUSE

Sexual abuse, also referred to as molestation, is forcing undesired sexual behavior by one person upon another. When that force is immediate, of short duration, or infrequent, it is called sexual assault. The offender is referred to as a sexual abuser or (often pejoratively) molester.[1] The term also covers any behavior by any adult towards a child to stimulate either the adult or child sexually. When the victim is younger than the age of consent, it is referred to as child sexual abuse.

TESTING OF COMPONENTS OF FITNESS

The five components of physical fitness are:

- Cardiovascular endurance
- Muscle strength
- Muscle endurance
- Flexibility
- Body composition

These 5 components measure your body's ability to use oxygen as fuel, your muscular strength and endurance, the flexibility of your joints and your total body fat.

A range of tests are used to measure these components. Once you've been tested in all five components, a physical fitness regimen can be tailored to your specific needs.

Cardiovascular Endurance

Cardiovascular endurance refers to the ability of your heart and lungs to work together to fuel your body with oxygen. The Cooper Run is most often used to test cardiovascular endurance. Aerobic conditioning, like jogging, swimming and cycling, can help improve cardiovascular endurance.

Muscle Strength

Muscle strength refers to the amount of force a muscle can exert, in a single effort. Exercises like the bench press, leg press or bicep curl might be used to measure muscle strength.

Muscle Endurance

Muscle endurance refers to the ability of a muscle to perform a continuous effort without fatiguing. Cycling, step machines and sit up tests are often used to measure muscular endurance.

Flexibility

Flexibility refers to the ability of each joint to express its full range of motion. Flexibility can be tested by stretching individual muscles or by performing exercises such as the lunge or the sit and reach.

Body Composition

Body composition refers to the amount of body fat you have, versus the amount of lean muscles, bones and organs. There are several tests that can be used to measure body composition. The most reliable is underwater weighing, but due to the size and expense of the equipment, this type of test isn't common. Many doctors, gyms and health clubs use a pinch test instead.

Warm Up & Cool Down

Warming up before and cooling down before exercise is an essential part of exercise session. Whilst time spent warming up and cooling down may seem like time that could be better spent actually exercising this is certainly not the case.

Warm Up

Warm up exercises let the body to prepare for exercise by increasing blood flow to the muscles allowing them loosen up. Not only can this help to maximize the benefits of exercise it can also help to prevent against injury.

The main arrears that a warm up should cover are:

- Jogging to increase the body's temperature
- Dynamic stretches to reduce muscle stiffness
- Specific stretches of the muscles that will be used during exercise

Cool Down

The process of cooling down after exercise is just as important as warming up. Cooling down:

- Allows the body to dissipate waste products such as lactic acid generated during exercise
- Reduces the chances of blood pools occurring in the areas where blood supply has been concentrated on during exercise which may cause light-headedness, sudden shortness of breath, weakness and cramps.
- Reduces the amount of adrenaline in the blood
- Allows heart rate to gradually return to a state of rest.

LOAD AND ADAPTATION

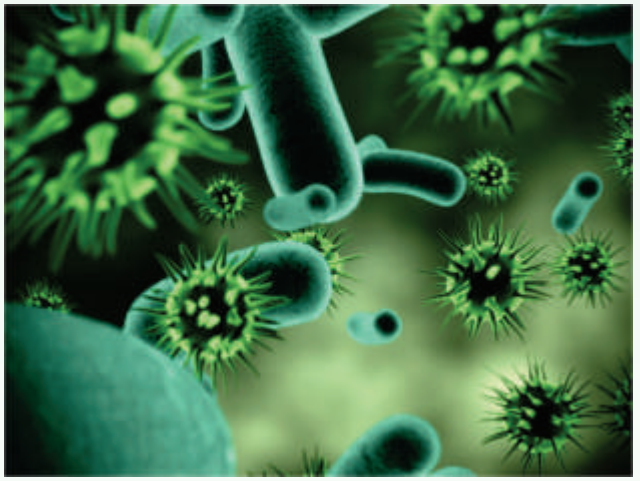
Biological systems can adapt to loads that are higher than the demands of normal daily activity. Training loads must be increased gradually, however, to allow the body to adapt and to avoid injury (system failure due to overloading). Varying the type, volume, and intensity of the training load allows the body an opportunity to recover, and to over-compensate . Loading must continue to increase Incrementally as adaptation occurs, otherwise the training effect will plateau and further improvement will not occur .

Adaptation

Adaptations to the demands of training occur gradually, over long periods of time. Efforts to accelerate the process may lead to injury, illness, or "overtraining" Many adaptive changes reverse when training ceases. Conversely, an inadequate training load will not provide an adequate stimulus, and a compensatory response will not occur.

Microbes useful and harmful

Microbes are much more our friends than our enemies. Although some microbes cause health problems such as strep throat, chickenpox and the common cold, most microbes make our lives better such as:



Bacillus thuringiensis - a common soil bacterium that is a natural pest-killer in gardens and on crops.

Arbuscularmycorrhizas - fungus living in the soil that helps crops take up nutrients from the soil.

Saccharomyces cerevisiae - baker's yeast that makes bread rise.

Escherichia coli - one of many kinds of microbes that live in your digestive system to help you digest your food every day.

Streptomyces - bacteria in soil that makes an antibiotic used to treat infections.

Pseudomonas putida - one of many microbes that clean wastes from sewage water at water treatment plants.

Lactobacillus acidophilus - one of the bacteria that turn milk into yogurt.

There are many other important jobs microbes do. They are used to make medicine. They break down the oil from oil spills. They make about half of the oxygen we breathe. They are the foundation of the food chain that feeds all living things on earth.

We've been using microbes for thousands of years to make products we need and enjoy. For example, you can thank fungi for the cheese on your cheeseburger and yeast for your bun. Cheese and bread are two microbe-made foods people have been enjoying since time began.

Over the past 50 years, we've begun using microbes to do all kinds of new work for us. Here are some examples of microbes at work in pollution control and medicine.

In pollution control, researchers are using bacteria that eat methane gas to clean up hazardous waste dumps and landfills. These methane-eating bacteria make an enzyme that can break down more than 250 pollutants into harmless cells. By piping methane into the soil, researchers can increase growth of the bacteria that normally live in the polluted soil. More bacteria means faster pollution break up. Also, bacteria is being used as one of the tools to clean up oil spills. These bacteria eat the oil, turning it into carbon dioxide and other harmless by-products.

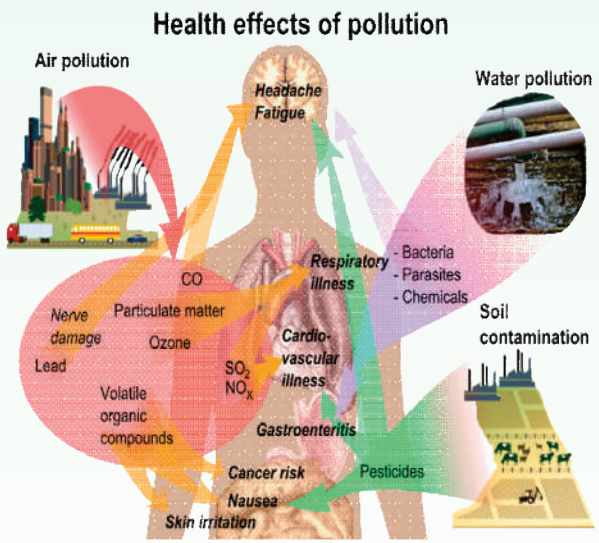
Fungi and bacteria produce antibiotics such as penicillin and tetracycline . These are medicines we use to fight off harmful bacteria that cause sore throats, ear infections, diarrhea and other discomforts. Scientists have changed the genetic material of bacteria and yeasts to turn them into medicine. They inject genes for medicines they want to make into the microbe cells, as if adding new building information to the microbe's cell DNA. The scientists then grow the microbes in huge containers called fermenters where they reproduce into billions, all making new medicines.

ENVIORNMENTAL POOLUITION AND HEALTH

'Environmental Pollution' encompasses the terms Environment and Pollution. Environment according to the Dictionary of Biology is the complete range of external conditions under which an organism lives including physical, chemical and biological factors such as temperature, light and the availability of food and water.

Pollution which literally means to make or render unclean is an undesirable change in the physical, chemical and biological characteristics of the land, air or water that harmfully effect human life or that of the desirable species.

Air, water and land are the three basic amenities of life. Increase in population coupled with industrialization and urbanization has led to the contamination of these amenities with undesirable and harmful substances leading to health hazards.



These so called harmful substances termed as 'pollutants' are the byproducts of man's action. Pollutants are basically of two categories namely, degradable and Nonie gradable.

The degradable ones include domestic wastes and sewerage which decompose easily. The non-degradable ones like inorganic compounds metallic oxides, plastic, radioactive elements etc. either take a long time to decompose or do not degrade at by natural or biological process.

Environmental pollution can be classified as Air Pollution, Water Pollution Land Pollution. Radiation Pollution, Noise Pollution. All these lead to a number of health hazards.

PREPARING FOOD

What is food preparation?

Food preparation - preparing foodstuffs for eating, which generally requires the selection, measurement and combining of ingredients in an ordered procedure to achieve a desired result. It includes but is not limited to cooking.

What type of thing is food preparation?

- Art - an art, one of the arts, is a creative endeavor or discipline.
- Culinary art - art of preparing and cooking foods.
- Skill - learned capacity to carry out pre-determined results often with the minimum outlay of time, energy, or both.

Essence of food preparation

- Chef - a person who cooks professionally for other people. Although over time the term has come to describe any person who cooks for a living, traditionally it refers to a highly skilled professional who is proficient in all aspects of food preparation.
- Cooking - act of preparing food for eating. It encompasses a vast range of methods, tools and combinations of ingredients to improve the flavour or digestibility of food. It generally requires the selection, measurement and combining of ingredients in an ordered procedure in an effort to achieve the desired result.
- Cuisine - specific set of cooking traditions and practices, often associated with a specific culture. It is often named after the region or place where its underlying culture is present. A cuisine is primarily influenced by the ingredients that are available locally or through trade.

FOOD PRACTICES

Because pesticides have many uses, we may be exposed to them in a variety of ways -- through food, water, and air. You may reduce the amount of pesticides you consume by:

WASHING: Wash and scrub all fresh fruits and vegetables thoroughly under running water. Running water has an abrasive effect that soaking does not have. This will help remove bacteria and traces of chemicals from the surface of fruits vegetables and dirt from crevices. Not all pesticide residues can be removed by washing.

PEELING and TRIMMING: Peel fruits and vegetables when possible to reduce dirt, bacteria, and pesticides. Discard outer leaves of leafy vegetables. Trim fat from meat and skin from poultry and fish because some pesticides residues collect in fat.

SELECTING A VARIETY OF FOODS: Eat a variety of food, from a variety of sources. This will give you a better mix of nutrients and reduce your likelihood of exposure to a single pesticide.

SAFTEY OUTSIDE SCHOOL

Playground Safety

Though parents may be home, children will want to play outside and unsupervised at a friend's house or at the park down the block. Before allowing this freedom, parents should thoughtfully determine whether children are mature enough to safely do this sort of thing unsupervised. Children should be mature enough to walk to the location alone (or with their friends) and to reliably come home at an

agreed upon time. Parents should set explicit rules regarding where children are allowed to go and how far away from home they may travel. The specifics of where children are allowed to go and how far should be sensitive to how children will get there (e.g., whether they are walking or riding a bicycle or scooter), and what path they will take, and what the traffic conditions are on that path. Parents will want to make sure children understand and will abide by any curfew rules for when they must return home, and meet in advance any requirements for setting up play-dates. For instance, if parents want to require that children cannot go play with a friend unless their friend's parents have been alerted to this fact, then children need to understand this rule and how it can be complied with. Communicating with playmates' caregivers can also help to ensure that everyone is "on the same page" with regards to rules.

Children who are outside playing need to be protected from sun exposure. Overexposure to the sun can not only lead to painful sunburns, but will also very likely increase their risk of developing skin cancers when they become teens or adults. All children who are at least six months old should use a sunblock of at least 15 SPF, applied regularly as indicated in the packaging directions. Sunblock should be reapplied frequently, especially if children are sweating or swimming. On especially hot days, kids should take breaks in the shade or house to cool off and rest, and drink plenty of water (rather than soda) to stay hydrated. For more information on this important topic, please see our section on Sun Safety.

Bicycle/Skate/Scooter Safety

Often, when children are playing outside, they ride bicycles or scooters or use other wheeled toys. Whenever they use such devices, children should wear helmets and appropriate elbow and knee pads in order to protect them from falls or other impacts which could damage their bones, joints or brains. Helmets should fit snugly and sit on top of the head; they shouldn't tilt forward or backward. This placement will ensure the best head protection in the event of an accident. If a child does take a spill which causes the helmet to be impacted, the helmet should then be replaced even if it looks undamaged. A helmet that survives one fall may not be strong enough to adequately protect children through a second one.

Helmets help keep kids safe on self-propelled vehicles like bicycles and scooters. However, they do not make motorized vehicles such as dirt bikes, ATV's (all-terrain vehicles), three-wheelers, or four-wheelers safe for school-aged children to ride. The American Academy of Pediatrics recommends that no child under the age 16 be allowed to ride motorized vehicles. A large portion of ATV-related injuries and deadly ATV accidents happen to child riders, as they are not cognitively and physically mature enough to handle these powerful machines with proper restraint and respect.

Swimming Pool Safety

Another outdoor family pleasure spot that requires constant adult supervision is the swimming pool. There is little room for supervision errors with regard to swimming pools or hot tubs, as accidents can lead to children's drowning death in just minutes. Constant, vigilant adult supervision of children while they are swimming near a pool is essential. Parents should also take care to block children's access to swimming pools and hot tubs when they are not in use. Rules of pool use should include: restrictions against running, wrestling, and other rough and tumble play. Doing "cannon balls" or other dives in most residential pools is often a bad idea, as many of these pools are not deep enough for these jumps to be safely performed.

While enrolling kids in swimming lessons is a great way to teach them water safety and lessen their risk of a swimming related accident, swimming lessons are not a guarantee that children will be safe in or near a pool. Even trained adult swimmers can become overwhelmed in a stressful situation and have accidents. Adult supervision and group supervision are the key components for keeping children safe in the water. Adults who act as supervising "life-guards" while children swim should themselves known how to swim and be trained (and retrained each year) in relevant water rescue, and first-aid skills.

GENDER SENSTIVITY

Gender sensitivity is the act of being aware of the ways people think about gender, so that individuals rely less on assumptions about traditional and outdated views on the roles of men and women. In language and the humanities, this is often expressed through people's language choice. People can choose more inclusive language that doesn't define gender, and many new words that are gender neutral have entered languages like English to substitute for more gender specific terms.

For centuries, many words referring to all people were specifically masculine. Terms like "man," and "mankind," which are used to describe all human beings, exclude females. While some people argue that such terms do include women, it's been argued that these words have a belittling effect on women. True gender sensitivity, it is said, moves past these terms to include all and exclude none.

It is further contended by experts that the use of such terms is by no means innocent, and they have a negative cultural effect felt beyond the words. By making women either absent or non-apparent in terms like "mankind," they become worthless and society will see them as possessing less value. This societal view in extreme forms is of detriment and corresponds to discrimination and even, arguably, things like greater violence against women.

PATIENTS AND CONSUMER RIGHT AND RESPONSIBLITIES

Rights

- Right to be treated with respect
- Right to freedom from discrimination, coercion, harassment and exploitation
- Right to dignity and independence
- Right to services of appropriate standard
- Right to effective communication
- Right to be fully informed
- Right to make an informed choice
- Right to make an informed choice and give informed consent
- Right to support
- Right in respect of teaching or research
- Right to complain

Responsibilities

- Provide accurate information in regard to medications ,treatments and medical history
- Ask for clarification or further explanation on nothing causing concern or uncertainty
- Cooperate with any treatments agreed to
- Respect the privacy, dignity, cultural, social and ethnic practices of other patients
- Show consideration to other patients requirements for peace and quiet
- Behave in a way that doesn't make staff or other patients feel threatened
- Bot use offensive language to staff or other patients

GOVT AGENCIES PROMOTING GAMES AND SPORTS

भारतीय खेल प्राधिकरण
SPORTS AUTHORITY OF INDIA

SPORTS AUTHORITY OF INDIA

The Sports Authority of India (SAI) (Hindi: [illegible]) is a body set up by the Government of India. It was created in 1984 to help promote sport throughout the country. Presently, it has seven regional centres at Bangalore, Bhopal, Gandhinagar, Kolkata, Sonepat, Delhi, Mumbai and Imphal and two sub-centres at Guwahati and Aurangabad. NetajiSubhas National Institute of Sports, Patiala, the Lakshmibai National College of Physical Education, Thiruvananthapuram are the major sports institutes run by this body. It has also a High Altitude Training Centre at Shillaroo, Himachal Pradesh

NATIONAL SPORTS FEDERATIONS

Nehru Yuva Kendra Sangathan (NYKS) In a first, the Nehru YuvaKendras (NYK) were established in 1972 to give avenues to the rural youth to develop their personality, skills and take part in the nation building. A decade later, in 1987-88, the Nehru Yuva Kendra Sangathan (NYKS) was set up as an autonomous organization under the Ministry of Youth Affairs and Sports, to oversee working of these Kendras. Notable Points: NYKS is one of the largest grassroots level voluntary organization which develops the principles of voluntarism, self-help and community participation among the youth. Nehru Yuva Kendra Sangathan has established a network of youth clubs in villages, where Nehru YuvaKendras have been set up. Youth Clubs are village based organizations working for community development and youth empowerment. Youth Clubs are composed of youth members ranging between the age group of 13-35 years. The Youth Club members voluntarily participate in programmes based on local needs and requirements by mobilizing resources from various government departments and other agencies, which include both national, State level and multilateral institutions.

THE MINISTRY OF YOUTH AFFAIRS AND SPORTS

political responsibility for sport in India is with the Ministry of Youth Affairs and Sports, which is headed by a cabinet minister and managed by National Sport Federations.] Sports Authority of India, the field arm of the Ministry, supports and nurtures talent in youth, and provides them with requisite infrastructure, equipment, coaching facilities and competition exposure. Dorabji Tata, with the support of Dr. A.G. Noehren, then director of YMCA, established the Indian Olympic Association (IOA) in 1927. IOA is responsible for the Indian continent's participation in the Olympic Games, Commonwealth Games, Asian Games (outdoor, indoor and beach), and South Asian Games. Each Olympic and non-Olympic sport has a federation at the national level.

The selection of the national teams is done by the respective national federations and then recommend to IOA for official sponsorship for participation in the games conducted under the auspices of the International Olympic Committee, Olympic Council of Asia, Commonwealth Games Federation, and SAG. A special feature of the Indian Olympic Association is that the National Federations and the State Olympic Associations are affiliated with and recognised by it. The main task of the State Olympic Associations is to promote the Olympic sport and to ensure co-ordination among the State Sports Associations. In 2010-11, the total budget for sports and physical education schemes is 31176.9 million (US$520 million).[5] Hockey, in which India has an impressive record with eight Olympic gold medals, is said to be the national sport(unclear source). The Rajiv Gandhi Khel Ratna and the Arjuna Award are India's highest awards for achievement in sports, while the Dronacharya Award is awarded for excellence in coaching.

GAMES

MOTOR SKILLS AND RHYTHM



A motor skill is an intentional movement involving a motor or muscular component that must be learned and voluntarily produced to proficiently perform goal-oriented task, according to Knapp, Newell, and Sparrow.

Rhythm (from Greek, *rhythmos*, "any regular recurring motion, symmetry") generally means a "movement marked by the regulated succession of strong and weak elements, or of opposite or different conditions." This general meaning of regular recurrence or pattern in time can apply to a wide variety of cyclical natural phenomena having a periodicity or frequency of anything from microseconds to millions of years.

LEADERS, FOLLOWERS AND SPORTSMENSHIP



Leadership has been described as "a process of social influence in which one person can enlist the aid and support of others in the accomplishment of a common task". For example, some understand a leader simply as somebody whom people follow, or as somebody who guides or directs others while others define leadership as "organizing a group of people to achieve a common goal"

Followers-a person who follows another in regard to his or her ideas or belief; disciple or adherent.

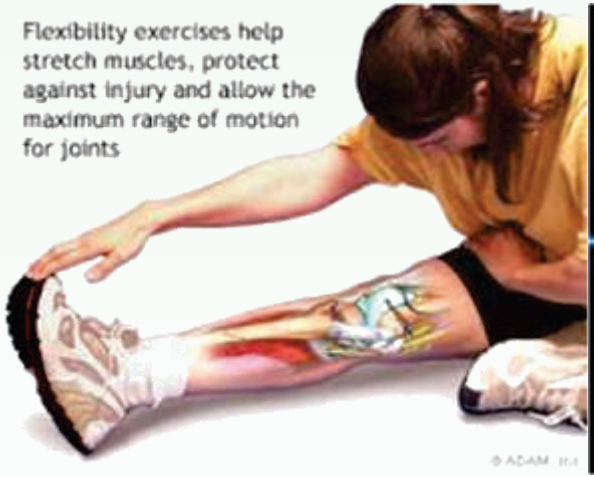
Sportsmanship

Sportsmanship (or sometimes sportspersonship) is an aspiration or ethos that a sport or activity will be enjoyed for its own sake, with proper consideration for fairness, ethics, respect, and a sense of fellowship with one's competitors. A sore loser refers to one who does not take defeat well, whereas a good sport means being a "good winner" as well as being a "good loser".

Sportsmanship can be conceptualized as an enduring and relatively stable characteristic or disposition such that individuals differ in the way they are generally expected to behave in sport situations. In general, sportsmanship refers to virtues such as fairness, self-control, courage, and persistence, and has been associated with interpersonal concepts of treating others and being treated fairly, maintaining self-control if dealing with others, and respect for both authority and opponents. Sportsmanship is also looked at as being the way one reacts to a sport/game/player.

A competitor who exhibits poor sportsmanship after losing a game or contest is often called a "sore loser" (those who show poor sportsmanship after winning are typically called "bad champs"). Sore loser behavior includes blaming others for the loss, not accepting responsibility for personal actions that contributed to the defeat, reacting to the loss in an immature or improper fashion, making excuses for the defeat, and citing unfavorable conditions or other petty issues as reasons for the defeat. A bad winner acts in a shallow fashion after his or her victory, such as by gloating about his or her win, rubbing the win in the face(s) of the opponent(s), and lowering the opponent(s)'s self-esteem by constantly reminding the opponent(s) of "poor" performance in comparison (even if the opponent(s) competed well).

PHYSICAL FITNESS AND IT'S COMPONENTS



Physical fitness is a general state of health and well-being or specifically the ability to perform aspects of sports or occupations. Physical fitness is generally achieved through correct nutrition, exercise, hygiene and rest. It is a set of attributes or characteristics that people have or achieve that relates to the ability to perform physical activity.

Before the industrial revolution, *fitness* was the capacity to carry out the day's activities without undue fatigue. However with automation and changes in lifestyles *physical fitness* is now considered a measure of the body's ability to function efficiently and effectively in work and leisure activities, to be healthy, to resist hypokinetic diseases, and to meet emergency situations.

The Components of Physical Fitness

The five components of physical fitness are:

- Cardiovascular endurance
- Muscle strength
- Muscle endurance
- Flexibility
- Speed

These 5 components measure your body's ability to use oxygen as fuel, your muscular strength and endurance, the flexibility of your joints and your total body fat.

A range of tests are used to measure these components. Once you've been tested in all five components, a physical fitness regimen can be tailored to your specific needs.

Cardiovascular Endurance

Cardiovascular endurance refers to the ability of your heart and lungs to work together to fuel your body with oxygen. The Cooper Run is most often used to test cardiovascular endurance. Aerobic conditioning, like jogging, swimming and cycling, can help improve cardiovascular endurance

Muscle Endurance

Muscle endurance refers to the ability of a muscle to perform a continuous effort without fatiguing. Cycling, step machines and sit up tests are often used to measure muscular endurance.

Flexibility

Flexibility refers to the ability of each joint to express its full range of motion. Flexibility can be tested by stretching individual muscles or by performing exercises such as the lunge or the sit and reach.

Speed- It is the total distance covered in the given duration of time .speed =distance/time

EMOTIONAL DEVELOPMENT



Emotional development is the emergence of a child's experience, expression, understanding, and regulation of emotions from birth through late adolescence. It also comprises how growth and changes in these processes concerning emotions occur. Emotional development does not occur in isolation; neural, cognitive, and behavioral development interact with emotional development and social and cultural influences, and context also play a role. Various emotional development theories are proposed, but there is general agreement on age-related milestones in emotional development.

Social and emotional development are strongly linked and sometimes studied or reported in tandem. Parents and other caregivers play an important role in emotional development, but as a child's world expands, other people in the social context also play a part in emotional development.

Debate continues as to exactly when emotions appear in infants. For example, smiles occur early, but the earliest ones are more likely reflexive than social. A smile may express emotion as early as 6 weeks of age but it is not until about age 6 months that a smile can be considered more emotional and social in nature. Crying is a powerful emotion for infants and may be used as a communication tool. Distress, pleasure, anger, fear, and interest are among the earliest emotions that infants express. Laughter begins at about 3 to 4 months of age. Eliciting laughter in babies at this age often involves an action that deviates from the norm, such as peek-a-boo games provoke. Development of negative emotions probably follows soon after, with anger still winning over sadness to express negative feelings. Fear begins to emerge, and infants often follow the emotions of their caregivers and form strong attachment to them.

By toddlerhood and early childhood, children begin to develop more of a sense of self. Emotions such as pride, shame, and self-recognition begin to emerge. These developments are facilitated partly by the rapid maturation of a toddler's frontal lobes and limbic circuit in the brain. These emotional developments lead to the strong sense of independence and defiance that often characterize the toddler years. Of course, toddlers also are becoming more independent physically, having developed skills such as walking. They may

begin to play independently too. The self-recognition brings new levels of emotional development. For example, toddlers will begin to respond to negative signals from caregivers and others. It is at the toddler stage, or at least by age 2, that children also begin showing empathy, which is a complex emotional response to a situation. Feeling empathy requires that a child not only read emotional clues from others but understand the distinction between self and others. Actually putting one's self in the other's position also is required for empathy.

Emotional expression is still largely nonverbal, although some emotional language may develop by age 20 months. For the most part, facial expressions, crying or other vocal expressions, and gestures still express many of toddlers' emotions. In early childhood, verbal skills develop and with them, verbal reasoning. Children also are able to talk about their feelings as they learn how to express themselves verbally. As young children enter preschool, they may be able to label their emotions and learn about them by understanding family discussions and actions concerning emotions. For example, a child may be able to say, "I am mad," or "I am sad," instead of simply expressing the emotion through actions such as crying, stomping, or yelling. This is not to say that tantrums do not occur; between toddlerhood and school age, children still express anger in the form of tantrums. Because emotions have become important to young children, they talk about them often in conversation.

Preschoolers begin to understand the rules of family, school, and society concerning how they express some of their emotions. They also can recognize nonverbal cues of emotion from one another. Preschoolers begin to distinguish between negative emotions such as sadness, anger, and fear. Although these young children have empathy, their knowledge of others' feelings generally is limited to people and situations with which they are familiar. Development of this emotional capacity also depends on positive, culturally acceptable emotional exchanges with peers. Negative emotional influences of family life that are common and harsh, particularly in the child's discipline model, can lead to problems with emotional development and even psychopathology.

HEALTHY COMMUNITY LIVING

Healthy community is one where there are low crime rates and good physical and emotional health. A healthy community should promote well-being of its inhabitants in various ways such as: strong social networks, clean water, pollution-free air, affordable quality healthcare, and great schools. A healthy community is one that promotes well-being by encouraging its residents to screen for illnesses for prevention to avoid the burden of chronic disease. Education campaign should be organized to sensitize people about the most

common illnesses and educate them on how to avoid them to achieve a better life. Resident should be aware of resources available to them in their community, allowing them to feel safe. In my opinion, there is a strong relationship between healthy people and strong communities.

PURCHASING, CONSUMING AND PRESERVING OF FOOD



Food Purchasing

Food purchasing can be a boring or interesting adventure depending on one's approach to it. To make food purchasing interesting you have to know much about the market place and ways in which you can make the most out of your food budget.

Now let us look at some of the things you can do to avoid waste of your time and money when purchasing food.

First of all you need to know the factors that determine the cost of the things you want to purchase. *Production cost *The season *The market supply of the goods *The demand of the goods *Advertisements *Amount of processing

Can you explain how each of these affects the cost of the things you buy? Now read the following explanations.

Production cost

This is the amount of money used to produce the item. In the case of food, the production cost will include the money spent on cleaning the land, sowing the seeds, harvesting and processing. The final cost of a product is determined by this amount plus others like transportation cost, profit and handling charges.

The season

Seasonal differences in the cost of food occur frequently in Ghana. Food items always cost less when they are in season because they are plenty and so the supply becomes high. When market supply of a commodity becomes high the price of the commodity falls. Food items that are out of season become scarce and therefore their prices are higher.

Demand for item

Usually when many people want a certain item, its price increases.

Advertisements

These are ways in which manufacturers and sellers tell us they have certain goods and services for sale. Advertisements cost money. The cost of advertising a product is added to the production cost to make up the price of a product. The more the advertisement the higher the cost of the product.

Amount of processing

Processing adds value to products and it costs money. Foods that are processed to provide conveniences cost more than unprocessed ones.

Do you now see why these factors affect the cost of products? Having learnt about these factors how would you buy your commodities so that you do not spend too much money

Factors that determine the amount of money we spend on food.

For most people food budget is one of the largest expenses. Careful planning and shopping can result in substantial savings. Normally if you are rich you tend to spend more money on food and if you are poor you spend less.

1. Your skills personal preferences,
2. Your values and your lifestyle will all determine your food selection and hence the money you spend buying food.
3. The skill of bargaining for example would help you to buy goods at the cheapest possible cost.
4. Buying foods in season and in bulk also helps to cut down cost.
5. Buying food from farm gates instead of from retailers also cuts cost. When you buy food, buy them from places where prices are lower and where food sold is of good quality. Buy food from places that are clean and where food is well stored.

Consuming of food

Eating (also known as consuming) is the ingestion of food or other object, usually to provide heterotrophic organism particularly for energy and growth. Animals and other heterotrophs must eat in order to survive: carnivores eat other animals, herbivores eat plants, omnivores consume a mixture of both plant and animal matter, and detritivores eat detritus. Fungi digest organic matter outside of their bodies as opposed to animals that digest their food inside their bodies. For humans, eating is anactivity of daily living.

Preserving food

Food preservation usually involves preventing the growth of bacteria, fungi (such as yeasts), or any other micro-organisms (although some methods work by introducing benign bacteria or fungi to the food), as well as retarding the oxidation of fats that cause rancidity. Food preservation can also include processes that inhibit visual deterioration, such as the enzymatic browning reaction in apples after they are cut, which can occur during food preparation.

Many processes designed to preserve food will involve a number of food preservation methods. Preserving fruit by turning it into jam, for example, involves boiling (to reduce the fruit's moisture content and to kill bacteria, yeasts, etc.), sugaring (to prevent their re-growth) and sealing within an airtight jar (to prevent recontamination). There are many traditional methods of preserving food that limit the energy inputs and reduce carbon footprint

Maintaining or creating nutritional value, texture and flavor is an important aspect of food preservation, although, historically, some methods drastically altered the character of the food being preserved. In many cases these changes have come to be seen as desirable qualities - cheese, yogurt and pickled onions being common examples.

PROTECTION OF SELF AND OTHERS

Self-defense or self-defense (see spelling differences) is a countermeasure that involves defending oneself, one's property, or the well-being of another from harm. The use of the right of self-defense as a legal justification for the use of force in times of danger is available in many jurisdictions, but the interpretation varies widely.

Physical

Jiu Jitsu defence against a knife attack. Berlin 1924

Physical self-defense is the use of physical force to counter an immediate threat of violence. Such force can be either armed or unarmed. In either case, the chances of success depend on a large number of parameters, related to the severity of the threat on one hand, but also on the mental and physical preparedness of the defender.

Unarmed [edit]

Many styles of martial arts are practiced for self-defense or include self-defense techniques. Some styles train primarily for self-defense, while other martial or combat sports can be effectively applied for self-defense. Some martial arts train how to escape from a gun situation, or how to break away from a punch, while others train how to attack. To provide more practical self-defense, many modern day martial arts schools now use a combination of martial arts styles and techniques, and will often customize self-defense training to suit the participants' lifestyles, occupations, age groups and gender, and physical and mental capabilities.

Armed

A wide variety of weapons can be used for self-defence. The most suitable depends on the threat presented, the victim or victims, and the experience of the defender. Legal restrictions also greatly influence self-defence options.

In many cases there are also legal restrictions. While in some jurisdictions firearms may be carried openly or concealed expressly for this purpose, there are more commonly tight restrictions on who can own firearms, and what types they can own. Knives, especially those categorized as switchblades may also be controlled, as may batons, pepper spray and personal stun guns and Tasers - although some may be legal to carry with a licence or for certain professions.

Non-injurious water-based self-defense indelible dye-marker sprays, or ID-marker or DNA-marker sprays linking a suspect to a crime scene, would in most places be legal to own and carry

Everyday objects, such as flashlights, baseball bats, newspapers, keyrings with keys, kitchen utensils and other tools, and hair spray aerosol cans in combination with a lighter, can also be used as improvised weapons for self-defense. Tie-wraps double as an effective restraint. Weapons such as the Kubotan (pocket stick) have been built for ease of carry and to resemble everyday objects. Tactical flashlights and tactical pens are especially built as impact weapons that resemble everyday objects.[5] Ballpoint pen knives, swordsticks, cane guns and modified umbrellas are similar categories of concealed self-defense weapons that serve a dual purpose.

PEER AND SOCIAL PRESSURE

Peer pressure is influence that a peer group, observers or individual exerts that encourages others to change their attitudes, values, or behaviors to conform the group norms. Social groups affected include *membership groups*, in which individuals are "formally" members (such as political parties and trade unions), or social cliques in which membership is not clearly defined. They may also recognize dissociative groups with which they would not wish to associate, and thus they behave adversely, in ways concerning that group's behaviors.

In youth

Peers become an important influence on behavior during adolescence, and peer pressure has been called a hallmark of an adolescent experience Peer conformity in young people is most pronounced with respect to style, taste, appearance, ideology, and value Peer pressure is commonly associated with episodes of adolescent risk taking (such as delinquency, drug abuse, sexual behavior and reckless driving) because these activities commonly occur in the company of peers Affiliation with friends who engage in risk behaviors has been shown to be a strong predictor of an adolescent's own behavior Peer pressure can also have positive effects when youth are pressured by their peers toward positive behavior, such as volunteering for charity or excelling in academics The importance of peers declines upon entering adulthood.

While socially accepted kids often have the most opportunities and the most positive experiences, research shows that being in the popular crowd may also be a risk factor for mild to moderate deviant behavior Popular adolescents are the most socialized into their peer groups and thus are vulnerable to peer pressures, such as behaviors usually reserved for those of a greater maturity and understanding. Socially accepted kids are often accepted for the sheer fact that they conform well to the norms of teen culture, good and bad aspects included. Popular adolescents are more strongly associated with their peer groups' likes such as alcohol, tobacco and drugs. Some studies also show that many popular students also make lower grades than less socially accepted kids. This is possibly due to the fact that popular students may spend more time worrying about their social life rather than studying. Although there are a few risk factors correlated with popularity, deviant behavior is often only mild to moderate. Regardless, social acceptance provides more overall protective factors than risk factor.

ADAPTATION TO SITUATIONS



As humans, we are remarkably adaptable, coping with all kinds of situations, as evidenced by our being spread across the globe, from hot deserts to frozen wastes.

Our ability to adapt can of course be very helpful, enabling us to survive many of the problems that life throws at us. Yet problems can also occur.

Situation

Life's circumstances change. We make and lose money. We get conscripted to fight a war. We have accidents. While these can be exciting, terrifying or otherwise arouse our emotions, we do not stay aroused forever. Emotions are transient, appearing quickly and fading before too long. The practical aspects of the situation take over and we become engrossed in how to cope with the it all.

Romance

It is fairly well proven that couples tend to be of similar atrractiveness. If you are beautiful, then you will attract a good-looking mate. If

you are average-looking, then you will most likely end up with someone else with relatively plain looks. And those who have unusual physical geography will probably end up with someone similar. It is not a given, but is is likely, and is known as 'assortative mating'.

So how do people reconcile this reality? Do they just sigh and make do? In fact there are two ways in which less attractive people find love.

First, they find attractive features that others find unattractive. That wonky nose or scraggy hair becomes just so endearing. Secondly, they find other attributes to love, such as a generous nature or a sharp intellect. In the latter, they may look down on relationships based on physical beauty as only 'skin deep'.

Happiness

Are rich people happier? Are disabled people sadder? In fact while winning the lottery can joyful and having limbs amputated may be traumatic, on the whole whatever life throws at us, we adapt to our new situation and return to our natural temperamental level of happiness, at what is called our set-point.

This is, of course, both good and bad news. We think 'It'll be great when…', assuming we'll be permanently happier when we retire or get promoted. And indeed, it's fun for a while, but then we get used to our new advantages and are brought back to earth by new problems that arise. And people who suffer from outrageous misfortune and think that the world is ending for them eventually do pick themselves up and find new ways to be happy. Sometimes an exception to this is where people have terminal illnesses. Perhaps they do not recover as they feel no hope. Maybe also they do not have time to regain their former satisfaction with life.

Pain

We even become adapted to pain, suffering less when we have experience more. Dan Ariely (2010) got injured soldiers to put their hands into hot water. Those who had been more severely injured, and who had adapted to pain, could keep their hands there for over twice as long as those who had been mildly injured (58 seconds vs. 27 seconds).

ROLE OF MEDIA AND ADVERTISEMENT

Media successfully exploits the public need for entertainment. People have always felt the need to be entertained, starting from the days of gladiators, when the public' general demand was to see people die in front of them in exchange for their money. As the years went by, the forms of the entertainment changed and became less cruel, but the principle of the crowd asking for Panemetcircenses (i.e. "bread and circuses") remained the same. In this matter, sports news is the best possible entertainment, and watching sport online or on TV is the best possible way to witness the actual thing happening.

media adheres to the needs of the wide public, fulfilling the desire to watch the "actual thing" on-line. Although a football match might occur in Milano, and tennis game may take place in Moscow, media brings the tennis game and the football match straight to your living room, without the need to get up from sofa and buy the ticket to Milano or wherever you want to get to. Media makes use of our need to witness the actual thing by serving as a mediator between the sporting event, which happens somewhere out there, and us, the viewers

PRECAUTIONS WHILE TAKING MEDICINE


1. Medicines should be put on the base of the tongue which should be properly cleaned.
2. Medicine should be swallowed after sucking in ones saliva
3. No food should be taken immediately before or after the medicine. A gap of at least half an hour should be maintained.
4. Do not touch the medicine. Pour powder directly in the mouth or take pills in the lid of bottle and pour in the mouth.
5. Always close the bottle after taking the medicine. Never leave it open.
6. Keep the bottle in a cool, dry place and away from strong odours

Individual Sports

GOAL SETTING AND STRATERGISING TO ACHIEVE IT

Goal setting involves establishing specific, measurable, achievable, realistic and time-targeted (S.M.A.R.T) goals. Work on the theory of goal-setting suggests that an effective tool for making progress is to ensure that participants in a group with a common goal are clearly aware of what is expected from them. On a personal level, setting goals helps people work towards their own objectives. Goal setting features as a major component of personal development literature. The word goal is also one of the most recognizable words in management for motivational endeavors.

It is considered an "open" theory, so as new discoveries are made it is modified. Studies have shown that specific and ambitious goals lead to a higher level of performance than easy or general goals. As long as the individual accepts the goal, has the ability to attain it, and does not have conflicting goals, there is a positive linear relationship between goal difficulty and task performance.

Goals are a form of motivation that sets the standard for self-satisfaction with performance. Achieving the goal one has set for oneself is a measure of success, and being able to meet job challenges is a way one measures success in the workplace.

Strategy has many definitions, but generally involves setting goals, determining actions to achieve the goals, and mobilizing resources to execute the actions. A strategy describes how the ends (goals) will be achieved by the means (resources). The senior leadership of an organization is generally tasked with determining strategy. Strategy can be planned (intended) or can be observed as a pattern of activity (emergent) as the organization adapts to its environment or competes.

Strategy includes processes of formulation and implementation; strategic planning helps coordinate both. However, strategic planning is analytical in nature (i.e., it involves "finding the dots"); strategy formation itself involves synthesis (i.e., "connecting the dots") via strategic. As such, strategic planning occurs around the strategy formation activity.

BONES AND COMMON INJURIES

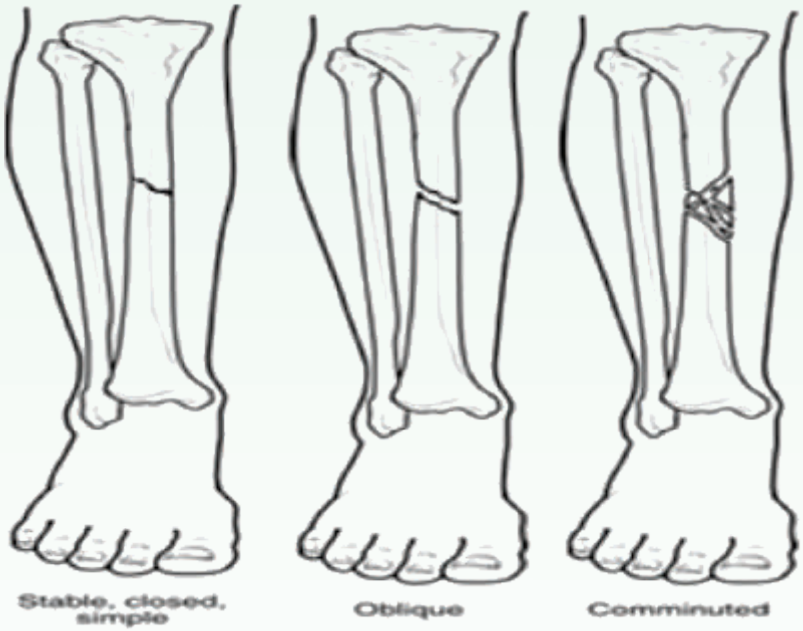
Bones are rigid, but they do bend or "give" somewhat when an outside force is applied. However, if the force is too great, the bones will break, just as a plastic ruler breaks when it is bent too far.

The severity of a fracture usually depends on the force that caused the break. If the bone's breaking point has been exceeded only slightly, then the bone may crack rather than break all the way through. If the force is extreme, such as in an automobile crash or a gunshot, the bone may shatter.

If the bone breaks in such a way that bone fragments stick out through the skin, or a wound penetrates down to the broken bone, the fracture is called an "open" fracture. This type of fracture is particularly serious because once the skin is broken, infection in both the wound and the bone can occur.

Common types of fractures include:

- **Stable fracture:** The broken ends of the bone line up and are barely out of place.
- **Open, compound fracture:** The skin may be pierced by the bone or by a blow that breaks the skin at the time of the fracture. The bone may or may not be visible in the wound.
- **Transverse fracture:** This type of fracture has a horizontal fracture line.
- **Oblique fracture:** This type of fracture has an angled pattern.
- **Comminuted fracture**: In this type of fracture, the bone shatters into three or more pieces.



Types of fracture

Symptoms

Many fractures are very painful and may prevent you from moving the injured area. Other common symptoms include:

- Swelling and tenderness around the injury
- Bruising
- Deformity - a limb may look "out of place" or a part of the bone may puncture through the skin

DISABILITIES AND DIFFICULTIES

Disability is the consequence of an impairment that may be physical, cognitive, mental, sensory, emotional, developmental, or some combination of these. A disability may be present from birth, or occur during a person's lifetime.

Disability is an umbrella term, covering impairments, activity limitations, and participation restrictions. Impairment is a problem in body function or structure; an activity limitation is a difficulty encountered by an individual in executing a task or action; while a participation restriction is a problem experienced by an individual in involvement in life situations. Thus, disability is a complex phenomenon, reflecting an interaction between features of a person's body and features of the society in which he or she lives.

An individual may also qualify as disabled if they have had an impairment in the past or is seen as disabled based on a personal or group standard or norm. Such impairments may include physical, sensory, and cognitive or developmental disabilities. Mental disorders (also known as psychiatric or psychosocial disability) and various types of chronic disease may also qualify as disabilities.

Some advocates object to describing certain conditions (notably deafness and autism) as "disabilities", arguing that it is more appropriate to consider them developmental differences that have been unfairly stigmatized by society.

POSTURAL DEFECT

Abnormal curvature of the spine is a potential risk that can become degenerative and inhibit sporting potential, examples of postural defects include:

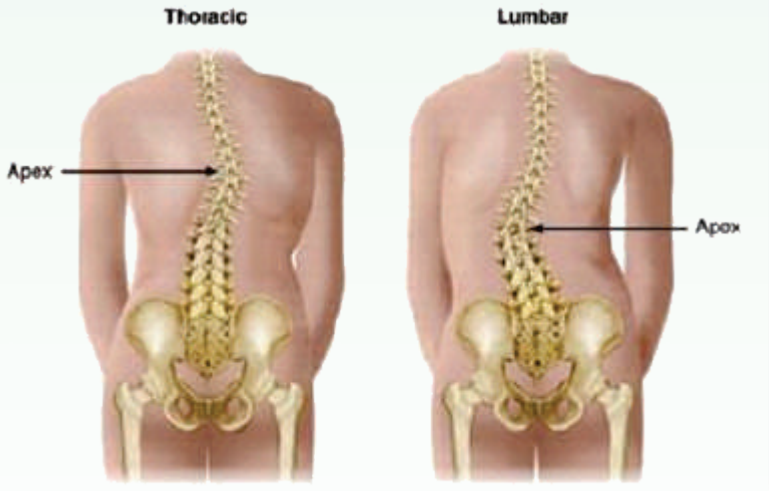
Scoliosis- A lateral imbalance or sideways bending of the spine.

Kyphosis-an excessive arching of the upper part of the spine.

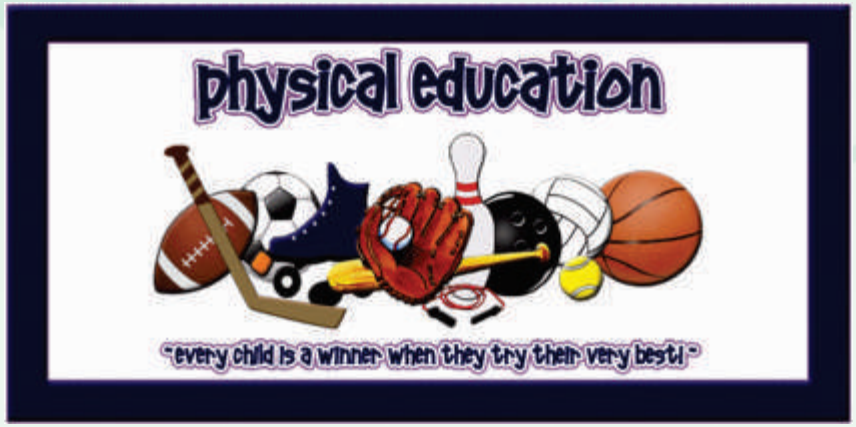
Lordosis-an excessive inward curve at the lower part of the spine.

These sorts of injuries can occur independently or a period of time or could be a birth defect.

For example if a rugby player had scoliosis it could increase the chance of injury to the back. This is because rugby is a very physical sport and involves a lot of back movement.



PHYSICAL EDUCATION AND ITS OBJECTIVE



Physical education means education through big muscle activities physical education was introduced decades ago, as a way of keeping young students fit, active, and healthy. Over the years, the methods of enforcing physical education have drastically changed, with new forms of activity introduced into schools. While physical education is usually practiced by primary and secondary schools, certain universities and colleges have their own ways of introducing this course.

Endurance sports and activities have a strong, significant presence in places of higher learning, where young adults naturally enroll themselves when brought up within a similar environment, whilst growing up. There are even degrees offered today for successfully completing a course under physical education. There's a saying that rings true, that education begins at home, where physical education is just one such thing that parents need to enforce, by setting an example to kids at a young age.

Major Objectives of Physical Education

1. Child Obesity
2. Adopting Values
3. Team Spirit
4. Fit Family
5. Sharper Intellect
6. Reduction of Health Risks
7. Teen Exercising
8. Positive Attitude

SPORTS TRAINING

The word '**Training**' has been a part of human language since ancient times. It denotes the process of preparation for some task. This process invariably extends to a number of days and even months and years. The term 'Training' is widely used in sports. There is, however, some disagreement among sports coaches and also among sports scientists regarding the exact meaning of this word. Some experts, especially belonging to sports medicine, understand sports training as basically doing physical exercises.

Sports' training is done for improving sports performance. The sports performance, as any other type of human performance, is not the product of on single system or aspect of human personality. On the contrary, it is the product of the total personality of the sports person.

The personality of a person has several dimensions e.g., physical, physiological, social and psychic. In order to improve sports performance the social and psychic capacities of the sports person also have to be improved in addition to the physical and physiological ones. In other words the total personality of a sportsman has to be improved in order to improve his performance. Sports' training, therefore, directly and indirectly aims at improving the personality of the sportsman. No wonder, therefore, sports training is an educational (i.e., pedagogical) process.

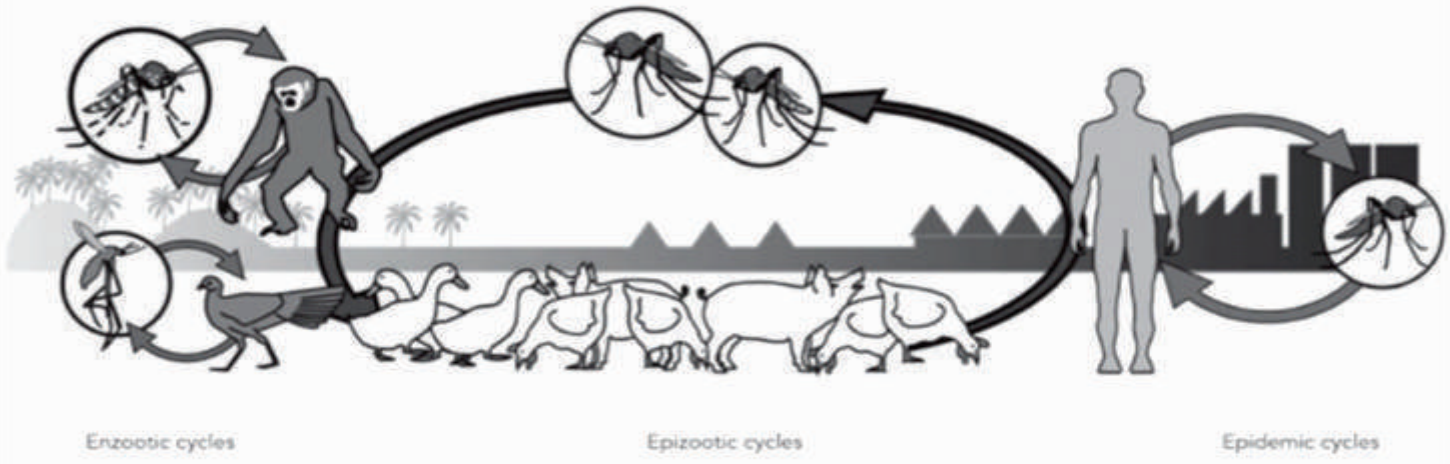
A definition of sports training has to be worked out in the light of above discussed nature of training. "Sports training is a planned and controlled process in which, for achieving a goal, changes in complex sports motor performance, ability to act and behavior are made through measures of content, methods and organization". **[Martin, 1979]**

"Sports training is the basic form of preparation of sportsmen". **[Matwejew, 1981]**

VECTOR-BORNE DISEASES

Figure 1

Vector-borne disease transmission cycles.



Note: vector-borne diseases occur in a staggering number of environments and include an incredible diversity of pathogens, hosts, and vectors. However, these diseases can generally be described within three broad categories of environments and transmission cycles: natural (e.g. forests), modified (e.g. rural, agricultural), and human (urban). This schematic is not intended as representative of a particular disease but as a general model that is adaptable according to the pathogen, vector(s), host(s), and environment(s) in which they occur.

Vectors are living organisms that can transmit infectious diseases between humans or from animals to humans. Many of these vectors are bloodsucking insects, which ingest disease-producing microorganisms during a blood meal from an infected host (human or animal) and later inject it into a new host during their subsequent blood meal.

Mosquitoes are the best known disease vector. Others include ticks, flies, sandflies, fleas, triatomine bugs and some freshwater aquatic snails.

Vector-borne diseases are illnesses caused by pathogens and parasites in human populations. Every year there are more than 1 billion cases and over 1 million deaths from vector-borne diseases such as malaria, dengue, schistosomiasis, human African trypanosomiasis, leishmaniasis, Chagas disease, yellow fever, Japanese encephalitis and onchocerciasis, globally.

Vector-borne diseases account for over 17% of all infectious diseases.

Distribution of these diseases is determined by a complex dynamic of environmental and social factors.

Globalization of travel and trade, unplanned urbanization and environmental challenges such as climate change are having a significant impact on disease transmission in recent years. Some diseases, such as dengue, chikungunya and West Nile virus, are emerging in countries where they were previously unknown.

Changes in agricultural practices due to variation in temperature and rainfall can affect the transmission of vector-borne diseases. Climate information can be used to monitor and predict distribution and longer-term trends in malaria and other climate-sensitive disease

GM FOODS

Genetically modified foods (or **GM foods**) are foods produced from organisms that have had specific changes introduced into their DNA using the methods of genetic engineering. These techniques have allowed for the introduction of new traits as well as a far greater control over a food's genetic structure than previously afforded by methods such as selective breeding and mutation breeding.

Commercial sale of genetically modified crops began in 1994, when Cal gene first marketed its Flavor delayed ripening tomato. To date, most genetic modification of foods have primarily focused on cash crops in high demand by farmers such as soybean, corn, canola, and cotton seed oil. These have been engineered for resistance to pathogens and herbicides and better nutrient profiles. GM livestock have also been experimentally developed, although as of November 2013 none are currently on the market.

There is broad scientific consensus that food on the market derived from GM crops poses no greater risk to human health than conventional food. However, opponents have objected to GM foods on several grounds, including safety issues, environmental concerns, and economic concerns raised by the fact that GM seeds (and potentially animals) that are food sources are subject to intellectual property rights owned by multinational corporation.

DIETARY REQUIREMENTS OF HUMAN BODY

Humans require food substances to supply the components necessary to build tissues, to repair tissues as they wear out and die, to keep the body in good working condition, and to supply fuel for energy. For good nutrition a person should eat a well-balanced diet, that is, one that provides an adequate amount of each of the classes of nutrients each day, furnishing at the same time an adequate but not excessive number of calories for the body's energy needs. Children require relatively larger amounts of nutrients and calories because of their rapid growth. The foods required for proper nutrition fall roughly into three major groups: proteins, carbohydrates, and fats; vitamins, minerals, and water are also important.

Proteins

Protein in the diet provides amino acids for forming body proteins, including the structural proteins for building and repairing tissues, and the enzymes for carrying out the metabolic processes. In addition, protein may be used as a source of energy when the preferred fat and carbohydrate supply runs low. A body that is in the process of building itself (such as that of a growing child or an adult recovering from illness) will need a greater proportion of protein to weight than one that is fully grown and utilizes protein merely for repair of worn-out tissues. The average adult requires 1 gram of protein per kilogram of body weight per day; children may require two to three times this amount. Human proteins consist of up to 22 different amino acids, of which 9 (called essential amino acids) must be supplied by food protein; the other 13 are synthesized by human cells. Complete protein sources-those foods containing all 22 amino acids-include animal products such as meat, eggs, cheese, and milk. Incomplete protein sources, such as vegetables, beans, and grains, may be combined to create complete proteins.

Carbohydrates

Carbohydrates (starches and sugars) provide a readily available energy source. Surplus carbohydrates are also converted by the body to glycogen and fat, the storage forms of calories for energy, and to some of the amino acids used in protein synthesis. Most health professionals recommend that carbohydrates comprise 50% to 60% of the dietary calories, of which most (c.80% of all carbohydrates eaten) should be complex carbohydrates, such as cereals and vegetables. Complex carbohydrates are preferred because the fast-acting simple carbohydrates, such as honey and sugar, are difficult for the body (especially the pancreas) to handle in large doses. Simple carbohydrates also lack the vitamins, minerals, proteins, and fiber that generally accompany foods rich in complex carbohydrates. Cereals, fruits, vegetables, legumes, and pasta are good sources of complex carbohydrates.

Fats

Fats (see fats and oils) in the diet provide a concentrated source of energy; 1 gram of fat supplies about 9 calories as opposed to only 4 calories per gram of carbohydrates and protein. Fats in the body, in addition to acting as a source of stored energy, supply physical protection and insulation for tissues and form important portions of cell membrane structure. Fats also aid in the absorption of the fat-soluble vitamins (vitamins A, D, E, and K) from the intestine. Milk, butter, meat, and oils are important sources of fat.

Vitamins, Minerals, and Water

To keep the body functioning properly it is necessary to have, in addition to the basic foods, a sufficient intake of accessory substances such as vitamins, minerals (see mineral, dietary), and enough water to carry nutrients to the tissues and waste products away from them. A minimum of about 2 liters of liquid per day are recommended for the average adult. Vitamins function as coenzymes in important body processes, with the exception of vitamin D, which is synthesized upon exposure to sunlight. A large variety of minerals are required, some in trace amounts and others, such as calcium and iron, in relatively large amounts. Milk, cheese, and dark, leafy green vegetables are excellent sources of calcium; liver, meat, and egg yolks are good sources of iron. Minerals are vital to the development of teeth and bones (calcium, phosphorus, and fluoride) and to the functioning of a number of the body's metabolic systems. Iron is a necessary part of hemoglobin in the blood; various metals are required in many enzymes; sodium and potassium are essential to maintenance of fluid balance and functioning of the nervous system; magnesium is needed for the normal functioning of nerves and muscles; and iodine is required for thyroid hormone. The usefulness of vitamin and mineral supplements for a person of good health who eats a well-balanced diet continues to provoke debate among health experts.

Specialized Diets

Specialized diets are useful in the treatment of certain disease states; the most common is a low-calorie diet to produce weight loss in obese persons. A diet low in phenylalanine is used to treat phenylketonuria. A diet low in cholesterol and saturated fats seems to be useful in the treatment and prevention of heart disease. Elimination of certain foods from the diet may be necessary to control allergies in some individuals. In all cases, however, specialized diets must provide all classes of essential nutrients in adequate amounts to maintain health in adults and support growth in children.

COMMON SPORTS INJURIES

Many people play sports in some way or another, whether they are playing for fun in their backyard or competitively on a team. Exercising by playing sports can be very beneficial to your health, but sometimes these benefits to your health are outweighed by negative things, such as an injury. The severity of these injuries can range from minor to very serious, with some injuries requiring surgery to fully heal. These injuries may be caused from poor training practices, improper equipment, flawed techniques, or may just be an accident. Injuries can also occur when a person is not properly conditioned to play the sport, such as not warming up or stretching muscles beforehand.

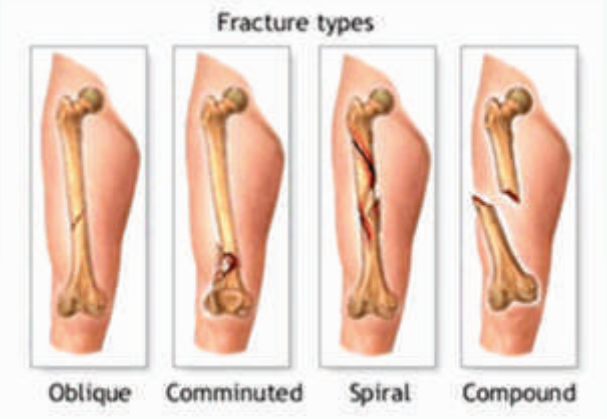
the most common sports related injuries are:

1) **Strains and Sprains:** These are the most common type of sports injury by far, and can occur in almost any type of physical activity. A sprain occurs when a ligament (band of connective tissue that attaches bones to other bones) tears or overstretches. These can range from minor to complete tears where the ligament is severed. A sprain is most common in wrists, ankles, or knees. A strain is also known as a pulled muscle, and occurs when the fibers within a muscle or tendon stretch too far or tear. Strains can also be minor to severe.

2) **Knee Injuries:** Every year over five million people visit orthopedic surgeons for knee related injuries and problems. Mild knee injuries include iliotibial band syndrome, runner's knee (tenderness or pain near the front of the knee cap), or tendonitis (degeneration or inflammation within a tendon). Severe knee injuries can involve damage or bruising to cartilage or ligaments. The four major ligaments in the knee that are commonly injured are the posterior cruciate ligament (PCL), the medial collateral ligament (MCL), anterior cruciate ligament (ACL), and the lateral collateral ligament (LCL).

3) **Shin Splints:** A shin splint is when pain along the shin bone (tibia) occurs. This pain is usually at the front outside part of the lower leg, but can also occur in the foot and ankle (anterior shin splints) or where the bone meets the calf muscles at the inner edge of the bone (medial shin splints). Shin splints are common with runners and even more-so when the runner runs on hard surfaces. Failing to warm up or stretch, improper running techniques, running in shoes that lack proper support, or having "flat feet" all can contribute to shin splints.

4) **Fractures:** Commonly referred to as a broken bone, fractures are a fairly common sports injury caused by a one-time injury to the bone (an acute fracture). Repeated stress on a bone over time (a stress fracture) can also occur. Small cracks a complete break will occur with an acute fracture. Most are classified as emergencies, and may even need surgery to completely repair. A stress fracture occurs most of the time in the legs or feet from sports that cause repetitive impact, such a running or jumping sport.



5) **Dislocations:** These occur when force pushes the bones in a joint out of alignment. Dislocations are also known as a luxation. Contact sports such as football or an activity such as excessive stretching or falling can cause dislocations. A dislocation will usually require medical treatment and be treated as an emergency. The dislocated bone may be able to be put back in place, but the connective tissue surrounding the joint may have severe damage. The most common joints that are dislocated are the fingers and hand, with the shoulder being close behind. Elbows, knees, and hips can be dislocated but are less common.

SAFETY FROM ANIMAL AND TREATMENT OF ANIMAL BITES


Both indoor animals and outdooranimals need to be treated kindly all the time. This means different thing depending on the animal and the situation. With awild animal, being kind may mean staying far away so the animaldoesn't feel threatened and so you stay safe.

The Great Outdoors

Stepping outside can mean a world full of great animals to see -from squirrels in trees to birds in flight. In some parts of theworld, kids may see slithery snakes, black bats, or even coolcoyotes. And don't forget raccoons, skunks, and other crittersthat come out in some places at night.

The rule in the great outdoors is simple: **Don't touch or gonear an animal.** Although some of these animals may look cool oreven cute, leave them alone. These animals aren't like regularpets. They're not used to being around people and may bite orattack if you come near them. They also might have

rabies.

Don't **ever** try to feed a wild animal. Bird feeders are OK, butother animals, even if they look hungry, shouldn't ever be fed.When it comes to these animals, it's better for everyone if youstay away and check them out at the zoo, on the Internet, on TVnature shows, or in books.

Playing Safely With Pets

Pets can't tell you if they're upset or scared, so they show you. They might do this by biting or scratching. To avoid bites and scratches:

- Never bother a pet when it's eating or pull its food or water away.

- Don't tease a dog or cat or pull its tail or ears.
- Never bother a pet when it's sleeping.
- Don't take a toy or bone away from a cat or dog or hold it out of reach of the animal.
- Never try to get near a pet with its babies (like a cat with kittens or a dog with puppies). Animal mothers are **very** protective and will bite to keep you away.
- When lifting a rabbit, hamster, guinea pig, or gerbil from its cage, do it **slowly**. Be sure to hold the animal underneath its belly.
- Never pick up or hold a rabbit by its ears.
- When pulling an iguana, lizard, snake, or other reptile from its tank, do it slowly and carefully. Then wash your hands right away because reptiles can carry bacteria like Salmonella on their skin.
- Never stick your bare hand into a fish tank - most fish can't hurt you. But a few types of fish can and do sting if they get upset. The water also contains germs that could cause a skin infection.
- If a pet looks sick or is injured, stay far away. An animal that normally loves to be petted and played with may get very upset and even bite when it is feeling ill. Tell an adult so he or she can get help for the animal. When you're at a friend's home, the same rules apply - plus one more. **Always** ask your friend if it's OK to pet or hold his or her pet. If your friend says OK, move slowly and be sure to let the animal sniff your hands first.

Animal Bites Treatment

1. Stop Bleeding

   Apply direct pressure until bleeding stops.
2. Clean and Protect

   For a wound or superficial scratch from an animal bite:

   Gently clean with soap and warm water. Rinse for several minutes after cleaning.

   Apply antibiotic cream to reduce risk of infection, and cover with a sterile bandage.
3. Get Help

   Get medical help immediately for any animal bite that is more than a superficial scratch or if the animal was a wild animal or stray, regardless of the severity of the injury.

   If the animal's owner is available, find out if the animal's rabies shots are up-to-date. Give this information to your health care provider.

   If the animal was a stray or wild animal, call the local health department or animal control immediately.
4. Follow Up

   The health care provider will make sure the wound is thoroughly clean and may prescribe antibiotics.

If there is any risk of rabies infection, the health care provider will recommend anti-rabies treatment.

The person may require stitches, depending on the location and severity of the animal bite.

The person may also require a tetanus shot or booster.

The health care provider may recommend ibuprofen or acetaminophen for pain.

IMPORTANCE, POSITIONING AND CONTENTS OF FIRST AID BOX

First aid kits are necessary for everyone no matter the age of who play . Injuries can happen anytime and anywhere. When you have a first aid kit within easy access of wherever you are you will ensure the safety of everyone.

1. First aid can reduce infections from open wounds and injuries
2. It can also reduce the severity of an injury.
3. You cannot always keep yourself from getting hurt but you can protect them when they get injured with a first aid kit.

Positioning offirst aid kit is very important it should be kept at a place from where it can be easily brought at the time of need. It can be placed inside your car .or in your hand bag or daily bag u carry with your self

Contents of first aid kit

- 2 absorbent compress dressings (5 x 9 inches)
- 25 adhesive bandages (assorted sizes)
- 1 adhesive cloth tape (10 yards x 1 inch)
- 5 antibiotic ointment packets (approximately 1 gram)
- 5 antiseptic wipe packets
- 2 packets of aspirin (81 mg each)
- 1 blanket (space blanket)
- 1 breathing barrier (with one-way valve)
- 1 instant cold compress
- 2 pair of nonlatex gloves (size: large)
- 2 hydrocortisone ointment packets (approximately 1 gram each)
- Scissors
- 1 roller bandage (3 inches wide)
- 1 roller bandage (4 inches wide)
- 5 sterile gauze pads (3 x 3 inches)

- 5 sterile gauze pads (4 x 4 inches)
- Oral thermometer (non-mercury/nonglass)
- 2 triangular bandages
- Tweezers
- First aid instruction booklet

OUTSTANDING PERSONALITIES IN SPORTS

1) Sachin Tendulkar

Sachin Ramesh Tendulkar, an Indian cricketer is widely acknowledged as one of the greatest batsmen in One Day International and second only to Don Bradman in the all-time greatest list in Test cricket.In 2002, *Wisden Cricketers' Almanackranked* him the second greatest Test batsman of all time, behind Don Bradman, and the second greatest one-day-international (ODI) batsman of all time, behind VivRichards. Tendulkar was a part of the 2011 Cricket World Cup winning Indian team in the later part of his career, his first such win in six World Cup appearances for India.He was also the recipient of "Player of the Tournament" award of the 2003 Cricket World Cup held in South Africa. Tendulkar has been honoured with the Padma Vibhushan award, India's second highest civilian award, and the Rajiv Gandhi KhelRatna award, India's highest sporting honour. He was also the first sportsperson and the first one without aviation background to be awarded the honorary rank of Group Captain by the Indian Air Force. Tendulkar has received honorary doctorates from University of Mysore and Rajiv Gandhi University of Health Sciences. As of 17 March 2013, Sachin holds the 19th rank in ICC Player Rankings for Test batsmen. On 23 December 2012, Tendulkar announced his retirement from ODIs. Tendulkar has already stated that he will not be playing T20 Internationals. Tendulkar announced his retirement from IPL and Twenty20 cricket shortly after Mumbai Indians beat Chennai Super Kings by 23 runs at the Eden Gardens in Kolkata on 26 May 2013 to win the Pepsi 2013 Indian Premier League.

2) Florence Griffith Joyner

Florence Delorez Griffith Joyner, also known as Flo-Jo, was an American track and field athlete. She is considered the "fastest woman of all time" based on the fact that the world records she set in 1988 for both the 100 metres and 200 metres still stand and have yet to be seriously challenged. She died in her sleep as the result of an epileptic seizure in 1998 at the age of 38. She attended University of California, Los Angeles **(UCLA)**. Flo Jo was glamourous. She wore 4-inch fingernails in bold colours, tiger stripe and animal print. They were originally 6.5 inches, but that prevented her from styling her

hair. She ran the 1987 World Championships in a hooded silver bodysuit and she frequently wore the "one-legger", which exposed one muscular leg entirely. Her clothing was always brightly coloured, often fluorescent and teamed with bold custom-made jewellery. Once during a race her nail flew off; afterwards she walked back down the track to find it. Phil Hersh of the Chicago Tribune commented on **ESPN**, saying "she was someone who wanted to make a fashion statement, as well as do it while running so fast you could barely see."

3) Lionel Messi

Lionel Andrés "Leo" Messi is an Argentine footballer who plays as a forward for La Liga club FC Barcelona and the Argentina national team. He serves as the captain of his country's national football team. By the age of 21, Messi had received Ballon d'Or and FIFA World Player of the Year nominations. The following year, in 2009, he won his first Ballon d'Or and FIFA World Player of the Year awards. He followed this up by winning the inaugural FIFA Ballon d'Or in 2010, and again in 2011 and 2012. He also won the 2010-11 UEFA Best Player in Europe Award. At the age of 24, Messi became Barcelona's all-time top scorer in all official club competitions. At age 25, Messi became the youngest player to score 200 La Liga goals. Messi is the first football player in history to win four FIFA/Ballons d'Or, all of which he won consecutively, and also the first one to win three European Golden Shoe awards. Messi became the first player to top-score in four successive Champions League campaigns. He set the European record for most goals scored in a season during the 2011-12 season, with 73 goals. On 16 February 2013, Messi scored his 300th Barcelona goal. On 30 March 2013, Messi scored in 19 consecutive La Liga games, becoming the first footballer in history to net in consecutive matches against every team in the league. His playing style and stature have drawn comparisons to compatriot Diego Maradona, who himself declared Messi his "successor".

4) Maria Sharapova

Maria Yuryevna Sharapova is a beautiful Russian professional tennis player who as of May 27, 2013 is ranked World No. 2 by the Women's Tennis Association (WTA) and is the top Russian player and the only one in the top 10. Sharapova has won twenty-nine WTA singles titles, including four Grand Slam singles titles. She has also won the year-end WTA Tour Championships in 2004. The WTA has ranked Sharapova World No. 1 in singles on five separate occasions, for a total of 21 weeks. She became the world no. 1 for the first time on August 22, 2005, and last held the ranking for the fifth time for four weeks from June 11, 2012 to July 8, 2012. Sharapova has also been featured in a number of modeling assignments, including a feature in the *Sports Illustrated Swimsuit Issue*. She has been featured in many advertisements, including for Nike, Prince, and Canon, and is the face of several fashion houses, most notably Cole Haan. Since February 2007, she has been a United Nations Development Programme Goodwill Ambassador, concerned specifically with the Chernobyl Recovery and Development

Programme. In June 2011, she was named one of the "30 Legends of Women's Tennis: Past, Present and Future" by *Time* and in March 2012, she was named one of the "100 Greatest of All Time" by Tennis Channel.

5) Michael Jordan

Michael Jordan is one of the best defensive players in basketball. Jordan's individual accolades and accomplishments include five MVP awards, ten All-NBA First Team designations, nine All-Defensive First Team honors, fourteen NBA All-Star Game appearances, three All-Star Game MVP awards, ten scoring titles, three steals titles, six NBA Finals MVP awards, and the 1988 NBA Defensive Player of the Year Award. He holds the NBA records for highest career regular season scoring average (30.12 points per game) and highest career playoff scoring average (33.45 points per game). In 1999, he was named the greatest North American athlete of the 20th century by ESPN, and was second to Babe Ruth on the Associated Press's list of athletes of the century. He was inducted into the Basketball Hall of Fame in 2009. Jordan is also noted for his product endorsements. He fueled the success of Nike's Air Jordan sneakers, which were introduced in 1985 and remain popular today.

SPORTS AWARENESS

There are so many positives outside of simply learning to win a game which can greatly impact the quality of a child's life.

Physical Fitness

Everyone knows that sports involve exercise and therefore anyone who plays will benefit from increased fitness. What many people don't know however are the other physical components which are greatly enhanced by playing sports

Golf, for example, is not considered to be as physically exerting yet offers great toning and muscle enhancement. The golf swing alone comprises a multiple set of movements which strengthen the core muscles in the body as well as toning the arms and shoulders. The walking and trekking with a golf bag will provide increased circulation and cardio health.

Basketball, volleyball and other sports which require jumping and stretching will increase height in children as they are still developing bones and muscle structure.

Swimming gives your entire body a work out and is one of the best forms of physical fitness for your overall health.

Any sport which involves throwing a ball will increase the strength in the arms and legs.

Sports which involve running such as soccer, basketball or football will increase endurance, stamina as well as circulation, lung and hearth health.

If you are trying to determine which sport to play or which activity your child will most enjoy, consider some of these physical benefits.

Leadership and Confidence

Regardless of age, the leadership benefits of playing sports are one of the many positives. Most sports require a level of decision making, quick thinking skills and analysis as well as motivational prowess. When involved with a team or game you will participate in encouraging your teammates, motivating them and planning your strategies for the game.

Children develop confidence from sports not simply from winning games but also from the social development established from being part of a team. The camaraderie and friendships which are bonded through constant practice and playtime will be long lasting and help instill a sense of community and leadership.

Stress Release

Any physical activity will ultimately help alleviate stress. This is one of the many benefits of playing sports. When the body exerts itself physically, endorphins are released in the body. These feel good hormones help calm and soothe the body, therefore eliminating stress. Also, muscles will release built up toxins and tensions allowing healing and reparation to take place.

Social Skills

Being a part of a team brings a sense of togetherness which is great, especially for children and teens. The team usually travels together, celebrates and mourns together. This helps bond the individuals and provides a family environment. The ability to lead, motivate and enhance teammates adds to the social skills already developed. Children also learn about winning and losing and begin to handle the challenges of defeat. The spirit of good sportsmanship and team pride are great building blocks for future leadership and social awareness.

Cognitive Skills

According to research, children who play sports often improve math skills. Some sports such as tennis, baseball or others which require aim and hitting skills will promote better focus and accuracy. Most sports also teach calm thinking strategies in order to promote playing under pressure without the stress and overwhelming consequences. This is a valuable lesson for children especially to learn and adapt toward real life.

Although there are many physical benefits of playing sports, the leadership and cognitive skills are also major factors. Sports will enhance the life of any adult or child and create a sense of community, pride and determination.

Health Myths Posed

From drinking eight glasses of water everyday to eating food before going to bed helps in storing fat are some of the health guidelines that doctors suggest, but experts bust such health and body myths that have been a part of our lifestyle for ages now.

Experts at an online bodybuilding supplement provider reveal the reality behind the myths:

1. **Myth:** You should drink eight glasses of water a day: 51% people think this is true.

   Reality: Fluid intake will depends on various factors and eight glasses of water a day is not going to be a level which is suitable for everyone. If a person is very physically active, either because he plays sports or has a demanding job, he will need to drink more. Conversely, if someone is eating lots of watery fruits and vegetables, then that person may need to drink less to remain hydrated.

2. **A tan can be healthy for your skin:** 68% people think this is true. Reality: A tan is a visible indication of sun damage, therefore, there is no such thing as a healthy tan. Healthy exposure should be limited to less than the time it takes to tan or burn. Burning just accelerates the risk of developing skin cancers and can also accelerate the ageing process, damaging the skin and causing wrinkles.

3. **Myth:** Adding fibre to your diet helps with constipation: 45% people think this is false.

   Reality: A high fibre diet is often recommended, especially for those with constipation. Furthermore, a diet rich in healthy fibre is linked to developing an improvement in digestive health. However, for many adding bran and bran-based cereals to your diet may make constipation worse, whilst foods high in insoluble fibre may reduce the absorption of minerals - such as iron, if eaten at the same time of day Ideally, it's preferable to take soluble fibre found in fruits, veggies and dry fruits, as this forms a gel and softens the stools."

4. **Eating at night makes you store fat:** 66% people think this is true. Reality: If you are eating a meal or snack which is rich in carbohydrates and fats in the evening, it is likely to cause some fat storage as your insulin levels will peak in response to the glucose produced. However, this fact is largely dependent on what has been eaten throughout the day and also what level of exercise has been done. To avoid fat storage, pick meals with a good balance of protein, fibre and a bit of good fat.

PROTECTION FROM DISEASE

To protect you from disease and prevent germs and infectious diseases from spreading these are some important points to remember

1. **Handle & Prepare Food Safely:** Food can carry germs. Wash hands, utensils, and surfaces often when preparing any food, especially raw meat. Always wash fruits and vegetables. Cook and keep foods at proper temperatures. Don't leave food out - refrigerate promptly
2. **Wash Hands**
3. **Clean & Disinfect Commonly Used Surfaces:** Germs can live on surfaces. Cleaning with soap and water is usually enough. However, you should disinfect your bathroom and kitchen regularly. Disinfect other areas if someone in the house is ill. You can use an EPA certified disinfectant (look for the EPA registration number on the label), bleach solution, or rubbing alcohol.
4. **Cough & Sneeze Into Your Sleeve**
5. **Don't Share Personal Items**: Avoid sharing personal items that can't be disinfected, like toothbrushes and razors, or sharing towels between washes. Needles should never be shared, should only be used once, and then thrown away properly.
6. **Get Vaccinated:** Vaccines can prevent many infectious diseases. There are vaccines for children and adults designed to provide protection against many communicable diseases. There are also vaccines that are recommended or required for travel to certain parts of the world. Our Immunization Assistance Project can advise you on immunizations andclinics where you to get needed shots.
7. **Avoid Touching Wild Animals:** Be cautious around wild animals as they can spread infectious diseases to you and your pets.
8. **Stay Home When Sick**

MENTAL HEALTH

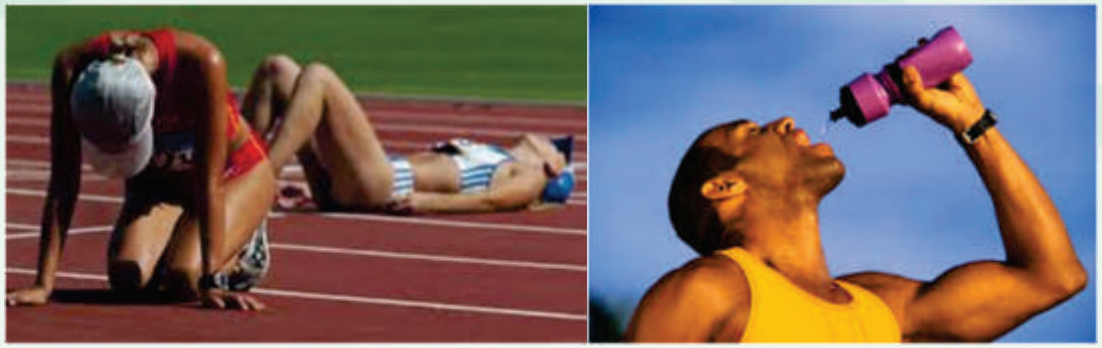
Mental health (or behavioral health) is a level of psychological well-being, or an absence of a mental disorder;] it is the "psychological state of someone who is functioning at a satisfactory level of emotional and behavioral adjustment". From the perspective of positive psychology or holism, mental health may include an individual's ability to enjoy life, and create a balance between life activities and efforts to achieve psychological resilience.[1] According to World Health Organization (WHO) mental health includes "subjective well-being, perceived self-efficacy, autonomy, competence, intergenerational dependence, and self-actualization of one's intellectual and emotional potential, among others." WHO further states that the well-being of an individual is encompassed in the realization of their abilities, coping with normal stresses of life, productive work and contribution to their community. However, cultural differences, subjective assessments, and competing professional theories all affect how "mental health" is defined. "Behavioral health" is the preferred term to "mental health."

A person struggling with his or her behavioral health may face stress, depression, anxiety, relationship problems, grief, addiction, ADHD or learning disabilities, mood disorders, or other psychological concerns. Counselors, therapists, life coaches, psychologists, nurse practitioners or physicians can help manage behavioral health concerns with treatments such as therapy, counseling, or medication. The new field of global mental health is "the area of study, research and practice that places a priority on improving mental health and achieving equity in mental health for all people worldwide".

FATIGUE

Fatigue (also called exhaustion, tiredness, languidness, languor, lassitude, and listlessness) is a subjective feeling of tiredness which is distinct from weakness, and has a gradual onset. Unlike weakness, fatigue can be alleviated by periods of rest. Fatigue can have physical or mental causes. Physical fatigue is the transient inability of a muscle to maintain optimal physical performance, and is made more severe by intense physical exercise. Mental fatigue is a transient decrease in maximal cognitive performance resulting from prolonged periods of cognitive activity. It can manifest as somnolence, lethargy, or directed attention fatigue.

Medically, fatigue is a non-specific symptom, which means that it has many possible causes. Fatigue is considered a symptom, rather than a sign because it is a subjective feeling reported by the patient, rather than an objective one that can be observed by others. Fatigue and 'feelings of fatigue' are often confused.



MEASUREMENT OF GROWTH

Here are various measurements that are used to measure growth. These are:

- weight,
- height,
- head circumference,
- mid upper arm circumference (MUAC)
- the eruption of teeth.

To be useful, these measurements must be taken accurately using reliable equipment and correct measuring techniques.

Measuring weight For measuring the weight, a beam balance or spring balance is used. Before weighing a child, check the weighing scale to ensure it is working properly. You can do this by weighing a known weight and noting whether the scale has obtained the same weight.

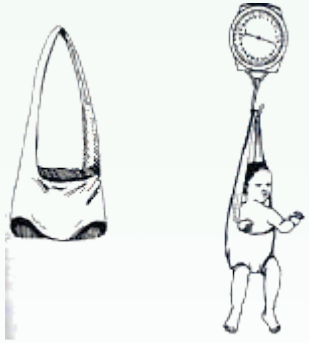


Fig. Measuring weight using a spring balance

Measuring the Head Circumference The head circumference is measured by encircling the head with an unstretchable tape measure, or a piece of string in the absence of a tape measure. This is passed over the most prominent part of the occiput posteriorly and just above the supraorbital ridges anteriorly to obtain the greatest distance around the head. The piece of string used in the absence of a tape measure is then measured with a ruler to obtain the head circumference .

Fig. Measuring the head circumference.

Measuring the mid upper arm circumference (MUAC) The mid upper arm circumference is measured using a tape or string in the absence of a tape. The tape or string is placed around the upper arm, midway between the olecranon and acromion processes. Care is taken not to pull the tape or string too tightly. The measurement is read. The string used in the absence of a tape measures is then measured with a ruler to obtain the mid upper arm circumference. Figure 5.3 illustrates how to measure the mid-upper arm circumference.

Fig. Measuring the mid upper arm circumference.

The length of a child is measured in the first 3 years and the height is measured after 3 years of age. The length is measured using a horizontal measuring board put on the ground or on a table. The child is laid on his back with the head against the fixed head board. A helper holds the child's head so that the eye angle- external ear canal line is vertical and also keeps the body straight. With one hand of the health worker, the child's knees are pressed down to straighten the child's legs fully while, with the other hand, the sliding foot board is placed to touch the child's heels firmly. With the foot board in place, the child's length is read on the metre scale. Fig 5.4 illustrates how the length of a child is measured.

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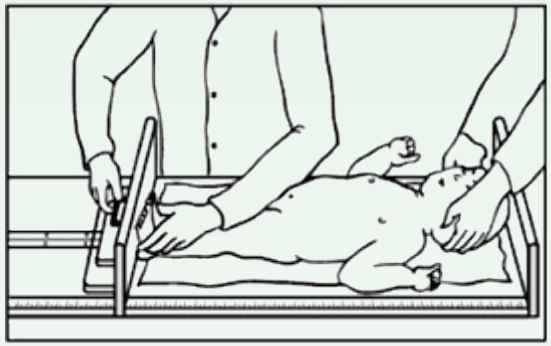


Fig Measuring the length and the height.

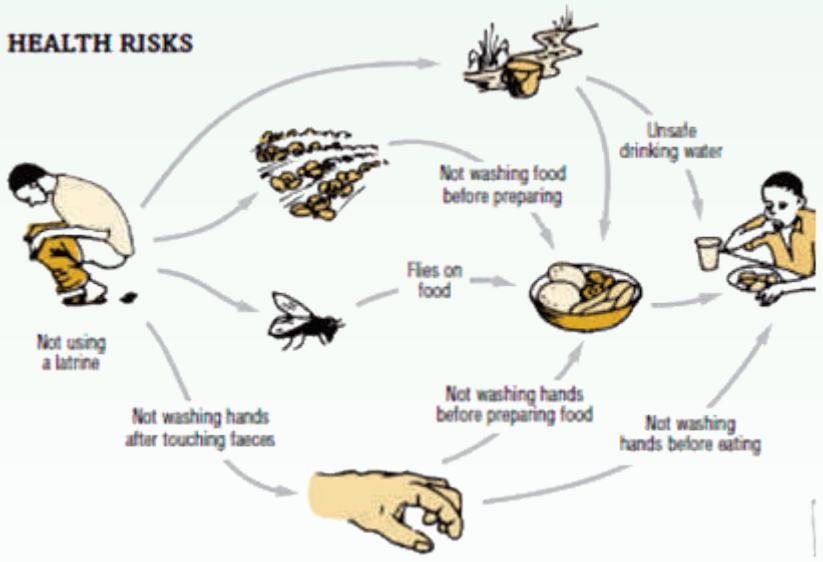
Tooth Eruption as an Element of Growth: Start by doing the following activity. It should take less than 3 minutes to complete.

HYGIENE AND SANITATION

Hygiene is a set of practices performed for the preservation of health. While in modern medical sciences there is a set of standards of hygiene recommended for different situations, what is considered hygienic or not can vary between different cultures, genders and etarian groups. Some regular hygienic practices may be considered good habits by a society while the neglect of hygiene can be considered disgusting, disrespectful or even threatening.

Sanitation involves the hygienic disposal and treatment by the civic authority of potentially unhealthy human waste, such as sewerage and drainage.

Sanitation is the hygienic means of promoting health through prevention of human contact with the hazards of wastes as well as the treatment and proper disposal of sewage wastewater. Hazards can be either physical, microbiological, biological or chemical agents of disease. Wastes that can



cause health problems include human and animal feces, solid wastes, domestic wastewater (sewage, sullage, grey water), industrial wastes and agricultural wastes. Hygienic means of prevention can be by using engineering solutions (e.g. sewage and wastewater treatment), simple technologies (e.g. latrines, septic tanks), or even by personal hygiene practices (e.g. simple handwashing with soap).

SEED BANKING

A **seed banking** (or **seed bank**) stores seeds as a source for planting in case seed reserves elsewhere are destroyed. It is a type of gene bank. The seeds stored may be food crops, or those of rare species to protect biodiversity. The reasons for storing seeds may be varied. In the case of food crops, many useful plants that were developed over centuries are now no longer used for commercial agricultural production and are becoming rare. Storing seeds also guards against catastrophic events like natural disasters, outbreaks of disease, or war. Unlike seed libraries or seed swaps that encourage frequent reuse and sharing of seeds, seed banks are not typically open to the public.

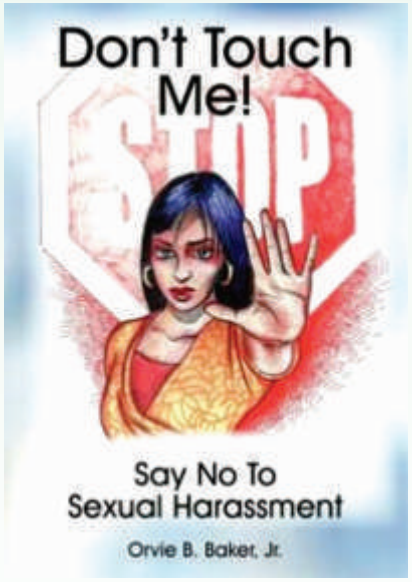
Malnutrition

Malnutrition is a condition that results from eating a diet in which nutrients are not enough or are too much such that it causes health problems.

The nutrients involved can include: calories, protein, carbohydrates, vitamins or minerals. It is often used specifically to refer to **under nutrition** where there is not enough calories, protein or micronutrients; however, it also include sovernutrition If under nutrition occurs occurs during either pregnancy or before the age of two years of age it may result in permanent problems with physical and mental development. Extreme undernourishment, known as starvation may have symptoms that include: a short height, thin body, very poor energy levels, and swollen legs and abdomen. People also often get infections and are frequently cold. The symptoms of micronutrient deficiencies depend on the micronutrient that is lacking.

Undernourishment is most often due to not enough high quality food available to eat.This is often related to high food prices and poverty. A lack of breast feeding may contribute, as May a number of infectious diseases such as: gastroenteritis, pneumonia, malaria and measles which increase nutrient requirements.] There are two main types of under nutrition: protein-energy malnutrition and dietary deficiencies. Protein-energy malnutrition has two severe forms: marasmus (a lack of protein and calories) and kwashiorkor (a lack of just protein). Common micronutrient deficiencies include: a lack of iron, iodine and vitamin A. During pregnancy, due to increased demand, deficiencies become more common. In some developing countries over nutrition in the form of obesity is beginning to present within the same communities as under nutrition. Other causes of malnutrition include anorexia nervosa and bariatric surgery In the elderly malnutrition becomes more common due to physical, psychological and social factors.

Sexual Harassment



Sexual harassment is bullying or coercion of a sexual nature, or the unwelcome or inappropriate promise of rewards in exchange for sexual favors. In most modern legal contexts, sexual harassment is illegal. As defined by the US EEOC, "It is unlawful to harass a person (an applicant or employee) because of that person's sex." Harassment can include "sexual harassment" or unwelcome sexual advances, requests for sexual favors, and other verbal or physical harassment of a sexual nature.

It includes a range of actions from mild transgressions to sexual abuse or sexual assault. Sexual harassment is a form of illegal employment in many countries, and is a form of abuse (sexual and psychological) and bullying. For many businesses and other organizations, preventing sexual harassment, and defending employees from sexual harassment charges, has become key goals of legal decision-making.

POSITIVE USE OF LESIURE TIME

Leisure means the time when one is free from one's routine work. It is spare time. It is the time meant to be enjoyed or spent in rest or recreation.

One is free to pursue his pastime in leisure time. Leisure time gives relief from long hours of work and labour. It offers opportunity to fill oneself with renewed energy to start again the task of life.

It is a famous saying that all work and no play make Jack a dull boy. This highlights the fact that play is as important as work. Leisure activates and refreshes us to start our work with all the more vigour and energy. It provides respite from the hectic schedule of daily routine. In today's fast-paced work environment, in most of the offices five-day week is observed. It aims to give worker sufficient time for rest, recreation and intellectual pursuits.

Leisure time is the golden time to be utilized in one's spiritual and intellectual development. One can groom one's personality by properly utilising the leisure time. We should use this time with definite plan. Idle use of leisure time is abuse of time. We should use our leisure time to satisfy our inner demands. Reading holy books, adventurous books or scriptures enriches our knowledge of culture, tradition and spirituality. It broadens our outlook. Leisure time can also be utilized to pursue some social or creative activity. It makes us cultured and elevated.

A man, who understands the importance of time, spends his leisure time in some purposeful activity. He likes to enjoy this time in learning, painting, music, gardening, singing or photography. Gardening is a useful and profitable leisure activity. Some people spend this time in stamp collection or coin collection as well. Stamp collection is a good activity. It is a good source of both knowledge and learning.

Life without leisure is dull and boring. It is monotonous. Human nature looks for change. It enjoys change. Leisure provides that change. This change instills in him new

energy and strength. It refreshes our brain. It satisfies the natural urge for creativity and brings profits as well. We should be very cautious in our choice of leisure activity. It should suit our resources, time and temperament. Only then leisure is going to be enjoyable and profitable.

QUALITIES OF SOCIALLY HEALTHY PERSON

1. Extroversion - A concern with or responsiveness to outward things (especially material objects as opposed to ideal concepts);"hearty showmanship and all-round outwardness.
2. Agreeableness-**Agreeableness** is a personality trait manifesting itself in individual behavioral characteristics that are perceived as kind, sympathetic, cooperative, warm and considerate.
3. Conscientiousness- **Conscientiousness** is the personality trait that is defined as being thorough, careful, or vigilant; it implies a desire to do a task well.
4. Emotional stability -Emotional stability refers to the state of being able to have the appropriate feelings about the common experiences and being able to act in a rational manner. Stability means to be emotionally and physically predictable and not readily moved. People that are emotionally stable are able to tolerate the day to day strains and stresses by not getting emotionally upset, anxious or angry.
5. Openness - **Openness** is an overarching concept or philosophy that is characterized by an emphasis on transparency and free

unrestricted access to knowledge and information as well as collaborative or cooperative management and decision making rather than a central authority.

SOCIAL CUSTOMS

Custom is a very strong component of cultural geography which is a sub-field of human geography. Custom is a frequent repetition of the same act, to the extent that it becomes characteristic of the group of people performing the act.

Habit is a similar word which is adopted by an individual, while custom is the act which has been adopted by most of the people of the ethnic group or society.

Geographers are mainly interested in two aspects of social customs. First, the spatial distribution of social customs; and second, the relationship between social customs and landscape.

The customs may be classified into two categories, i.e., the customs derived from necessary activities (food, clothing and shelter); and the other customs involve leisure activities including the arts and recreations. The arts involve the production of beauty by imitation or design, according to aesthetic principles. Recreation is an activity designed to divert attention from toil of anxiety.

Social customs may also be classified into (i) folk, and (ii) popular. Folk customs are also known as vernacular customs which are traditionally practiced primarily by small, homogenous rural groups. Folk culture may be defined as the collective heritage of institutions, customs, skills, dress, and way of life of a small, stable, closely knit, usually rural community. Tradition controls folk culture and resistance to change is strong.

The home-made and hand-made dominate in tools, music, story and ritual. Houses are constructed with a purpose.

Contrary to this, the popular customs (material culture), also known as international customs, are found in large, heterogeneous societies that share certain habits despite differences in other personal characteristics.

The folk customs develop as a result of particular physical, social and economic characteristics experienced by the group, while the popular customs are based on the ease of interaction in the world, because of rapid means of communications and transportation.

With the increasing trend of urbanization and development of satellite communication, the folk customs are threatened and their survival is in danger.

Moreover, popular customs may be less likely to reflect specific physical landscape yet more likely to modify physical landscapes in accordance with international values.

The spatial distribution of customs is very complex. In general, the popular customs are more widely distributed, while the folk customs remain confined to a narrow territory.

Folk customs most frequently originate from an anonymous source, with the date of origin, as well as the originator, unknown. The origin of popular customs differs from that of folk customs.

Popular customs are a product of the industrialized countries, especially the countries of Western Europe, USA and Japan. They arise from a combination of industrial technology and increased leisure time.

Industrial technology has permitted the creation of objects that can be reproduced uniformly in large quantities. Many of these objects have been designed to help people enjoy their leisure time that has increased as a result of change from predominantly agricultural to office and factory jobs.

RIGHT AND RESPONSIBILITIES FOR HEALTH

Health Rights

- Access- The right to receive health care

- Safety- The right to safe and high quality care
- Respect -The right to be treated with respect, dignity and consideration
- Communication - The right to be informed about services, treatment and options in a clear and open Way
- Participation-The right to be included in decisions and choices about health care
- Privacy- The right to privacy and confidentiality regarding personal information
- Comment-The right to comment on care and have concerns addressed

Health Responsiblities

- Pursue Healthy Lifestyle
- Become Knowledgeable about Their Health Plans.
- Actively Participate in Decisions about their Health Care.
- Cooperate on Mutually Accepted Courses of Treatment.

GOVT. HEALTH SERVICES

- **All India Institutes of Medical Sciences** owned and controlled by the central government. These are referral hospitals with super specialty facilities. All India institutes presently functional are All India Institute of Medical Sciences, New Delhi, AIIMS Bhopal, AIIMS Bhubaneshwar, AIIMS Jodhpur, AIIMS Raipur, and AIIMS Rishikesh.
- Regional Cancer Centers are cancer care hospitals and research institutes controlled jointly by the central and the respective state governments.

- **Government Medical Colleges** owned and controlled by the respective state governments. These are referral hospitals.
- **District Hospitals or General Hospitals:** Controlled by the respective state governments and serving the respective districts (administrative divisions in India).
- **Taluk hospitals:** Taluk level hospitals controlled by the respective state governments and serving the respective taluks (administrative divisions in India, and smaller than districts).
- Primary Health Centers: The most basic units with the most basic facilities, and especially serving rural India.[2]
- Community Health Centre CHCs: Community Health Centers are available in basic health unit in the urban areas.

SYLLABUS FORMAT OF HEALTH AND PHYSICAL EDUCATION

Appendix 1

Theme/ Sub-Theme	Questions	Key Concepts	Resources	Activities/Processes
CLASS 6: HEALTH AND PHYSICAL FITNESS				
Health and Physical Fitness	Are we healthy? Am I physically fit? How can we become more fit?	Concept of Health Concept of physical fitness Strength, stamina and suppleness	Charts Information material	Classroom session – Concept of physical fitness: Discussion, Explanation Work-book Motivational techniques Pictures of athletes and sports persons Sports bulletins Sports records - making and breaking
Introduction to Components of Physical Fitness	How fast are we? How fast are we? How flexible I am? Can I coordinate my movements?	Assessing speed Assessing strength Test for flexibility Coordinative abilities	Open space Lime powder Medicine balls Sit and reach-test Folk-dance resources (music/equipment)	Sprints – dash running, German drills Strength - squats, medicine ball exercises etc. Test for flexibility, Minor Games Aerobics, folk-dance (solo, pair, group)
Preparation for leadership and followership	Can we be ready for instruction?	Formations Line, file, circle, oval, triangle, diamond, rectangle, square, pyramid Working/ response to command Working in formation and groups	Markers Microphone/ PA System Drum	Count-in-two/three Making students to form the desired formation and perform some kind of group-activity in a particular formation

Being a Player and demonstrating sportsmanship	How can we become sportsmen?	Learning motor skill Observing ethical values Participation in competitive sports Regards for rules, regulations and judgments Team-spirit		Fundamental skills: (Reinforcement of previously acquired skills and fitness) Track and field events Gymnastics** forward roll, backward roll, sideward roll, balance on one leg, cat and scissor jump, 180 turn on leg. Team Games & Sports (any two) Kabaddi, Kho Kho, Volleyball, Badminton, Judo, Basketball, Cricket
Meaning and Important of Yoga	How yoga is suitable for me and why I should do asanas or pranayam?	Yoga asanas	Daries	Surya namaskar, Tadasan, Vrikshasan, Bhujangasan, Shalabhasana, Pranayam
CLASS 7: SPORTS SKILLS				
Motor skills	How many more activities we can play?	Opportunities to play games and sports	Play ground Gymnastic Mattresses	Fundamentals of track & fields events - 100 m. run, 600 m. run/walk Basic gymnastic Balance on one leg, jumps, turn 360 degree Games (As per available facilities) : football, hockey, basketball, cricket, kho-kho, kabaddi , badminton, volleyball, swimming, judo, wrestling etc.

Rhythm	How do we move smartly?	Developing ability of naturally responding to: command, limited space, group-work, formations	Microphone/ PA System Markers Drum	Marching on command Marching formations Exercising with Apparatus : Lezium, Dumbbels, Tipri, Wands, Hoops, Ropes, Balls, Ribbons Aerobics and other group-activities
Yoga	Why do we do Asanas? What is Mudra?	For healthful living Postures	Yoga Charts Posters of Yogic practices	Orientation to Yoga Gomukhasana, Yoga- Mudra, Viparitkarani, Sarvangasana, Matsyasana, Halasasana, Ujjayi (without Kumbhaka), Shavasana
CLASS 8: ORIENTATION TO SPORTS SKILLS				
Motor skills	Can we recreate through physical activities?	Recreation through physical activities	Depending upon the nature of recreational activity	<u>Activities</u> Recreational Games – badminton, table-tennis etc., Party Games Modified Games
Sports Skills	How many more games we can play?			Fundamental Skills of any two major games (as per the availability of facilities) Football, Hockey, Basketball, Cricket, Kho-Kho, Kabaddi Volleyball, Swimming, Judo, Wrestling etc. <u>TRACK & FIELD</u> <u>GYMNASTICS</u> Match Practice (before / after school)

Agility	How can we test our agility?	Agility for fitness	Measuring tape, stopwatch, whistle, open space, lime-powder for marking	Pushups/modified pushup Bent knee sit-ups Shuttle run
Yogasana	What are the other asanas we can perform?	Flexibility Static contraction of muscles Concentration Balance	Charts, Posters, Graph, Photographs of Yogic Practices	Halasana, Ardha-Matsyendrasana, Paschimotanasana, Gomukhasana (Baddha hasta), Bhadrasana, Tadasana,
CLASS 9: ORIENTATION TO PHYSICAL EDUCATION & SPORTS EDUCATION				
Physical Education	Concept of Physical Education, Warming-up, Fitness and Human body	What is Physical Education?	Reference books, class lectures	Use of sports for demonstrating about how the objectives can be achieved For example making the students to participate in various competitions
Objectives of Physical Education	What are the Objectives of Physical education	Explaining the objectives of physical education like physical, mental, social and emotional development	Reference books, class lectures	
Warming-up and Cooling Down	What is Warming-Up? How to get ready for specific physical activity?	Role and importance of warming-up Need for limbering down after physical activity	Playground	Playing games after warming-up Measuring of Pulse rate
Fitness	What is Fitness? What are the effects of fitness on our human body?	Concept about fitness	Teaching of various tests through reference books. Use of stopwatch, measuring tape	Conducting physical fitness tests like-Short runs, Distance runs, Sit-ups, Pull-ups, Pushups, Vertical and Standing Broad jumps.

				Recording the performance of each child and documenting the same
Measurement of Growth	Can we measure the growth of our human body?	Measuring various parts of our body and weight of the body. Also whether the body is growing proportionately in relation to age. Information about growth chart	Use of Stadiometer, weighing machine, measuring tape	Practical demonstration of measuring the body parts and weight and recording the data in the practical file
Excellence in Performance	How can we be prepared for performance excellence at higher level?	Factors affecting the training of an athlete Nutritional requirement of athletes. Factor of heredity and environment	Playfield, stopwatches, measuring tape, textbooks/reference books	Use of various training means and methods and students to record the performance on various fitness tests
Sports Training	What is sports training?	Aim, Characteristics and Principles of sports training	Reference books	Lecture, practical use of principles of sports training in playfield with the help of various sports
Fatigue	What is Fatigue?	Concept of fatigue Causes & symptoms of fatigue. Remedial measures to overcome fatigue	Reference books	Practical demonstration of fatigue factors on playfield using various physical activity
Concept of Load, Adaptation and Overload	What is Load and Adaptation? How to judge the Load?	Concept of load and adaptation. Relationship of load and adaptation Components of load and its importance in training, fitness and health development	Reference books, knowledge about measuring pulse rate at rest and after cessation of physical activity	Use of physical activity and various sports along with other training methods on the playfield. Practical counting of the pulse after physical activity and recording it in the practical record book for further analysis

		Knowledge about assessing the fitness of self and others		
Activities for Relaxation	How can we relax?	Meditation and its advantages. Relaxation through Yoga and various Recreational activities	Playground, Hall or classroom	Selected yogic asanas, meditation and use of various recreational games
Knowledge and proficiency in sports and motor skill acquisition	Are you aware of the evolution of various sports? What motor skills are required to play a sport?	Historical evolution, rules and terminologies of various sports. Description of fundamental motor skills needed to play a sport and perform. Knowledge about elite Sport Personalities	Playfield of various sports, teaching in classroom, availability of various sports equipment.	Sports selection (any two) : Badminton, Basketball, Cricket, Football, Gymnastics, Hockey, Kabaddi, Kho-Kho, Swimming, Table-Tennis, Tennis, Volleyball Combative Sports:Judo, Wrestling Preparing record book
Physical, Psycho-social Development	Are we ready for Competition?	Meaning and Types of competitions. Avenues and levels of competitions	Playground, Classroom	Drawing of Fixtures for competitions namely, Single Knock-out and Single League Assignments
Ethical and Moral Values	What are Ethical and Moral values?	Introduction and understanding of Ethical and Moral values.	Playground, Classroom, School Complex, Home, Charts Models, Menecans, Story Telling	Opportunities to participate in sports and various group games in fair play
Inculcation of Values through Physical Education	How can we inculcate values? Who is a value oriented person?	Professional values Role of Physical Education programmes in inculcating such values		Marching, Demonstration of activities and playing various recreational games Story Telling of various sports personalities

Yoga	What is stretching? How can we improve flexibility?	Meaning and importance of stretching and flexibility	Charts, Posters, various visual aids	Learning and Performing of following Asanas: Ugrasana, Dhanurasana, Simhasana, Uttanmandukasana, Kukkutasana, Nauli and Kapalabhati
CLASS 10: ORIENTATION TO PHYSICAL EDUCATION & SPORTS EDUCATION				
Concept of Physical Education	How physical education is an integral part of education?	Relationship of physical education with other discipline of knowledge.	Lectures, Books and various resource materials	Projects depicting use of various disciplines like Application of Maths, Science, Sociology and Psychology in games and sports /Activities
Tournaments	What are the types of tournaments and drawing of fixtures?	Knowledge about drawing of fixtures Merits and De-merits of each type of fixtures, Scheduling of matches.	Fixtures of various tournaments	Knock-out-Single and double; League –single and double Combination Fixtures: League cum knock-out; knock-out cum league
Sports and Games	How various sports were evolved?	History of games and sports.	Reference books	Track& Field events (any two) Sports and games (any two) : Badminton, Basketball, Cricket, Football, Gymnastics, Hockey, Kabaddi, KhoKho, Swimming, Table-Tennis, Tennis, Volleyball, Combative Sports : Judo, Wrestling Preparing record book
Rules and Regulations of Sports	What are the rules and terminologies governing the sport?	Knowledge about rules needed to understand and play the sport. Awareness about sports terminologies	Use of Rules book of various sports	Playing of above stated games and sports

Playfield Dimensions	Do you know the area required to play various sports?	Measurements/ Dimensions of various sports	Use of Rules book of various sports. Playground. Knowledge from various websites	Visit to various sports stadiums or schools in the vicinity having various sports facilities
Sports Skills	What skills/ Techniques needed to play various sports?	Information about fundamental skills required to play a sport	Playground outdoor and indoor sports area	
Awards and Rewards in Sports	Are you aware of awards given to outstanding sports persons	Knowledge about Awards in sports. Various sports personalities on whom these awards conferred	Reference books and various websites	Collection of photographs of various sports personalities and awards and recording in practical file
Yoga	Do we feel stressed?	Concept of stress and factors inducing stress.	Photographs, Posters of yogic practices, Audio-visual aids	Demonstration and performing of various Asanas: Shirshasana, Shalabasana, Bakasana, Mayurasana (for boys), Hamsh asana (for girls), Uttana Kurmasana (for boys), Anuloma –viloma

Appendix 2

Activities in NCERT Syllabi

Category	Focus of the activities	Activities/Games	
		Classes VI-VIII	Classes IX-X
Adventure	Solving problems and having the courage to overcome fear/anxieties in challenging situations and environments	Trekking, Camping	Rock Climbing, River rafting Para gliding, Scuba Diving
Athletics	Going further, higher, faster	Swimming	Swimming, Track & Field Events (Any Two)
Games	Beating the opposition and winning the game	Basketball, Football Volleyball, Table Tennis, Badminton, Cricket , Hockey, Kabaddi, Kho Kho,	Basketball, Football, Volleyball, Table Tennis, Lawn Tennis Badminton, Cricket, Hockey, Kabaddi, Kho Kho,
Health and Fitness	Exercising regularly and safely for personal well being	Aerobics/Folk-dance,	Aerobics/Folk-dance, Fitness (short distance runs, distance runs, sit ups, pull ups, push ups, vertical and standing broad jumps)
Individual sports	Participating for oneself in activities	Gymnastics, Judo, Wrestling	Gymnastics, Judo, Wrestling

Yogic Activities in NCERT Syllabi

Classes VI-VIII	Classes IX-X
Surya namaskar, Tadasan, Vrikshasan, Bhujangasan, Shalabhasana, Gomukhasana, Gomukhasana (Baddha hasta), Viparitkarani, Sarvangasana, Matsyasana, Ardha-Matsyendrasana, Halasasana, Paschimotanasana, Bhadrasana, Tadasana, Shavasana Yoga- Mudra, Pranayam Ujjayi (without Kumbhaka)	Ugrasana, Dhanurasana, Simhasana, Uttanmandukasana, Kukkutasana, Shirshasana, Shalabasana, Bakasana, Mayurasana (for boys), Hamsh asana (for girls), Uttana Kurmasana (for boys), Nauli and Kapalabhati Anuloma –viloma

Health and Physical Education subjects that students should be taught as part CCE

Sports/ Indigenous sports (Kho-Kho etc.)
Swimming
Gymnastics
Yoga
First Aid
Gardening/Shramdaan

Sports/indigenous/ Gymnastics

- Displays an innate talent in an identified games/Swimming/ sport
- Demonstrates Endurance (is able perform a skill for a long period of time)
- Displays Strength (ability to produce force)
- Is able to use his/her power to advantage (ability to produce strength in the shortest possible time).
- Is able to move quickly (Speed)
- Is agile and is able to change direction quickly during the game/matches A*, A,
- Shows Flexibility, Yoga, Gymnastics etc.
- Demonstrates Nerve and is able to overcome fear Eg; Diving
- Displays durability: (The ability to withstand physical exercise over a long period of time.
  Eg; coaching for Soccer etc.)
- Shows good hand-eye coordination: the ability to react quickly to sensory perception.
  (Eg; catching or fielding in cricket, passing or receiving in football, hockey.)
- Demonstrates an analytic aptitude: the ability to evaluate and react appropriately to strategic situations especially as a captain or key member in a team.
- Demonstrates sportsmanship
- Displays a healthy team spirit
- Discipline on and off the field
- Punctuality and regularity for practice etc.

Swimming

- All characteristics as listed in sports above
- Has undergone training/coaching
- Has represented house/school/state/nation in swimming
- Enjoys swimming
- Is familiar with free style/back/butterfly/breast strokes /displaying a high/ competitive level of skill
- Is a skilled diver/able to dive
- Follows all safety norms while swimming

Gymnastics

- All characteristics as listed in sports above
- Is undergoing / has undergone coaching in gymnastics
- Has represented house/school/state/nation in Gymnastics
- Is familiar with/displays high levels of skills in the sub disciplines of gymnastics (floor exercises, parallel bars, roman rings) etc.

Yoga

- All skills as listed for sports above
- Shows keenness and interest
- Is able to relax completely during exercises Grading scales A*, A, B
- Sits comfortably in the correct steady, straight posture
- Is able to regulate breathing/breathe correctly
- In meditative Yoga (is able to let go of stream of thoughts, cultivate and apply helpful thoughts)
- Is able to remain undisturbed for a while
- Allows all Yoga skills to work together

Appendix 3

Blank assessment sheet Continuous and Comprehensive Assessment

1B: Physical and Health Education/Games

A+, A, B+, B, C

Name	An appreciation and understanding of good physical health and physical fitness	An involvement in sports/ physical education programs	Team work	A knowledge of different sports and rules of games	Motivation and leadership	Skills of co-ordination, agility and balance	An awareness of rules of safety	An evidence of being self disciplined

Appendix 4

1. BALANCE TEST

Flamingo Balance Test

The Flamingo Balance Test is total body balance test, and forms part of the Euro fit Testing Battery. This single leg balance test assesses the strength of the leg, pelvic, and trunk muscle as well as dynamic balance.

- **Purpose:** To assess the ability to balance successfully on a single leg.
- **Equipment Required :** stopwatch, metal beam 50cm long, 5cm high and 3cm wide (the beam is stabilized by two supports at each end, and should have a non-slip surface)
- **Procedure:** Stand on the beam with shoes removed. Keep balance by holding the instructor's hand. While balancing on the preferred leg, the free leg is flexed at the knee and the foot of this leg held close to the buttocks. Start the watch as the instructor lets go. Stop the stopwatch each time the person loses balance (either by falling off the beam or letting goes of the foot being held). Start over, again timing until they lose balance. Count the number of falls in 60 seconds of balancing. If there are more than 15 falls in the first 30 seconds, the test is terminated and a score of zero is given.
- **Scoring:** The total number of falls or loss of balance in 60 seconds is recorded
- **Video:** http://www.youtube.com/watch?v=o0YFQ7FcbBk

2. HAND EYE COORDINATION

Alternate Hand Wall Toss Test

- **Purpose:** to measure hand-eye coordination
- **Equipment Required:** tennis ball or baseball, smooth and solid wall, marking tape, stopwatch(optional)
- **Procedure:** A mark is placed a certain distance from the wall (e.g. 2 meters, 3 feet). The person stands behind the line and facing the wall. The ball is thrown from one hand in an underarm action against the wall, and attempted to be caught with the opposite hand. The ball is then thrown back against the wall and caught with the initial hand. The test can continue for a nominated number of attempts or for a set time period (e.g. 30 seconds). By adding the constraint of a set time period, you also add the factor of working under pressure.
- **Scoring:** This table lists general ratings for the Wall Toss Test, based on the score of the number of successful catches in a 30 second period.

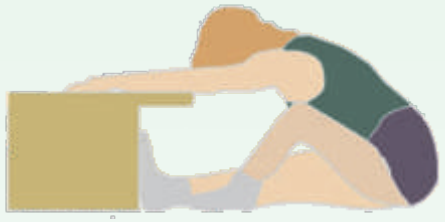
- **Video:** http://www.youtube.com/watch?v=Y6251vZ7RmA

3. FLEXIBILITY

Back saver Sit and Reach Test

This variation of the traditional sit and reach test is designed to measure the flexibility of the left and right legs separately. This is the procedure used for the Fitness Gram Program. Read about the other versions.

- **Equipment Required:** sit and reach box
- **Procedure:** Shoes should be removed first. Sit on the floor with one leg out straight and the other leg with the knee bent and its foot flat on the floor (see image). The outstretched foot is placed flush against the measurement box. With hands placed on top of each other and palms facing down, the subject reaches slowly forward along the measuring line as far as possible. After three practice reaches, the fourth reach is held for at least one second while the distance is recorded. The subject may repeat the test three times and the best score taken. See also video demonstration of the Back saver Sit and Reach Test.



- **Scoring:** The score is recorded to the nearest centimeter or half inch as the distance reached by the tip of the fingers.
- **Video:** http://www.youtube.com/watch?v=gYB6HN8Q5bg

4. SPEED

20 meters, 30 meters and 50 meters sprint test

Sprint or Speed Tests

- **Purpose:** The purpose of this test is to determine acceleration, maximum running speed and speed endurance, depending on the distance run
- **Equipment Required:** measuring tape or marked track, stopwatch or timing gates, cone markers.
- **Procedure:** The test involves running a single maximum sprint over a set distance, with time recorded. After a standardized warm up, the test is conducted over a certain distance, such as 20, 30 and 50 meters, depending on the age groups determined and what you are trying to measure. The starting position should be standardized, starting from a stationary position with a foot behind the starting line, with no rocking movements. If you have the equipment (e.g. timing gates), you can measure the time to run each split distances (e.g. 5, 10, 20m) during the same

run, and then acceleration and peak velocity can also be determined. It is usual to give the athletes an adequate warm-up and practice first, and some encouragement to continue running hard past the finish line.

- **Results:** You can use a measure of the time for the first 10 meters or yards from a stationary start as a score for acceleration.
- **Video:** http://www.youtube.com/watch?v=U3J-2J1A1EI

5. STRENGTH TESTING

Abdominal Strength and Endurance Test

Partial Curl up Test

The partial curl-up abdominal fitness test requires the subjects to perform as many sit ups as possible following a set rate. The following information describes the procedures as used in the Connecticut Physical Fitness Test. There is also a similar Curl Up test as part of the President's Challenge Fitness Awards. See the general guidelines for Abdominal Endurance Tests.

- **Purpose:** The curl-up test measures abdominal strength and endurance, which is important in back support and core stability.
- **Equipment Required:** a flat, clean, cushioned surface, recording sheets, pen, and a metronome (or audio tape, drums)
- **Procedure:** The starting position is lying on the back with the knees flexed and feet 12 inches from the buttocks. The feet cannot be held or rest against an object. The arms are extended and are rested on the thighs. The head is in a neutral position. The subject curls up with a slow controlled movement, until the student's shoulders come off the mat two inches, then back down again. One complete curl-up is completed every three seconds (1.5 seconds up and 1.5 seconds down, with no hesitation), and are continued until exhaustion (e.g. the subject cannot maintain the rhythm). There is no pause in the up or down position, the curl-ups should be continuous with the abdominal muscles engaged throughout.
- **Scoring:** Record the total number of curl ups. The completion of one complete curl up counts as one. Only correctly performed curl ups should be counted - the sit up is not counted if the shoulders are not raised up two inches; the head touches the mat; the heels come off the mat and or the student is off cadence.
- **Video:** http://www.youtube.com/watch?v=ivKEmqfofTU

Upper Body Strength and Endurance Test

Flexed-Arm Hang Test

The flexed-arm hang test measures upper body strength and endurance. This following describes the procedures as used in the President's Challenge Fitness Awards and Fitness Gram. See also the flexed arm hang test used for the Marines and the flexed arm hang used for the International Physical Fitness Test

.

- **Purpose:** to measure upper body strength and endurance by timing how long they can hang with the chin above the bar.
- **Equipment Required:** Stopwatch, Horizontal overhead bar at an adequate height, stool (optional).
- **Procedure :** Grasp the overhead bar. The grip for the President's Challenge allows using either an overhand grip (palms facing away from body) or underhand grip (palms facing toward body), while for Fitness Gram the overhand grip is required. Position the body with the arms flexed and the chin clearing the bar. The chest should be held close to bar with legs hanging straight. The subjects should be assisted to this position. The subject holds this position for as long as possible. Only one trial is required.
- **Scoring:** The total time in seconds is recorded - timing is stopped when student's chin touches or falls below the bar. The type of grip used should also be recorded with the results
- **Video:** http://www.youtube.com/watch?v=ajmPDlemZhs

6. Aerobic Endurance

Mile Endurance Run/Walk Test

This test describes the procedures as used in the President's Challenge Fitness Awards and Fitness Gram Program. Many other variations of running and walking tests are described elsewhere on this website.

- **Purpose:** this test measures aerobic endurance, as a measure of health and an important component of many sporting activities.
- **Equipment Required:** stopwatch, smooth and level marked 1 mile track, paper and pencil.
- **Description:** The purpose of this test is to complete one mile in the fastest possible time. After the purpose of the test and instructions are given, the participants begin running on the count "Ready? Go!". If they desire, walking may be interspersed with running, however, they should be encouraged to cover the distance in as short a time as possible.
- **Variations / Modifications:** for younger children a shorter test can be performed, using the same procedures : 1/4

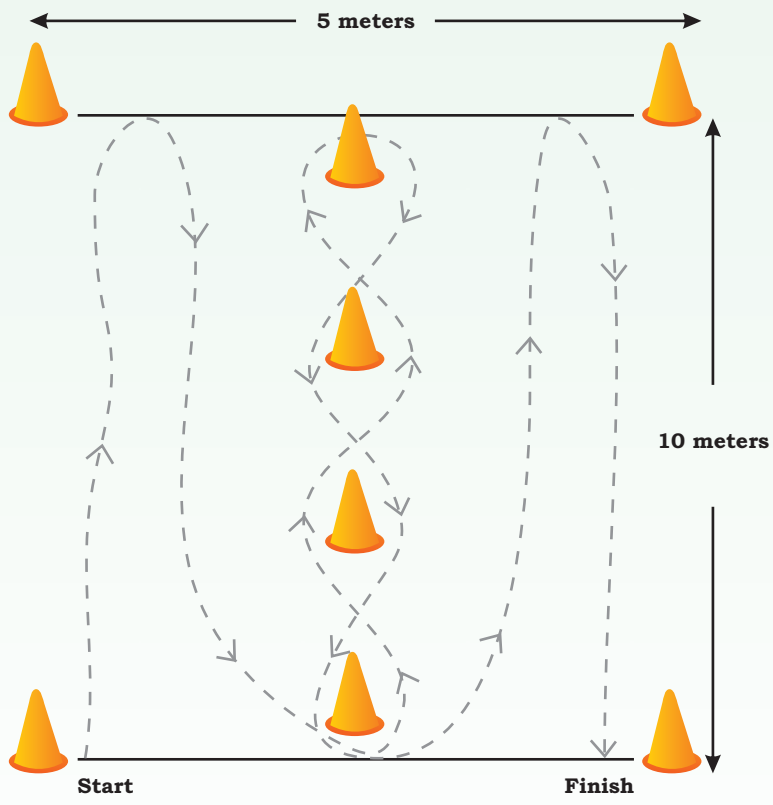
mile for 6-7 years old, and 1/2 mile for 8-9 years old.

- **Scoring:** Note the time, in minutes and seconds, it took to complete the mile. These results can be compared to published norms for similar age groups
- **Video:** http://www.youtube.com/watch?v=vMkbXg7xrzE

Illinois Agility Test

Agility is an important component of many team sports, though it is not always tested, and is often difficult to interpret results. The Illinois Agility Test (Getchell, 1979) is a commonly used test of agility in sports, and as such there are many norms available.

- **Purpose:** to test running agility
- **Equipment Required:** flat non-slip surface, marking cones, stopwatch, measuring, timing gates (optional)
- **Procedure :** The length of the course is 10 meters and the width (distance between the start and finish points) is 5 meters. Four cones are used to mark the start, finish and the two turning points. Another four cones are placed down the center an equal distance apart. Each cone in the center is spaced 3.3 meters apart. Subjects should lie on their front (head to the start line) and hands by their shoulders. On the 'Go' command the stopwatch is started, and the athlete gets up as quickly as possible and runs around the course in the direction indicated, without knocking the cones over, to the finish line, at which the timing is stopped. (see illinois test video examples)
- **Vedio:** http://www.youtube.com/watch?v=T3k5NJkACqk



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