HEALTH & PHYSICAL EDUCATION

SELF-STUDY BOOK

GRADE 07

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01 Let us build a healthy family environment

01. Write 03 things that we learn from our family?

- Health habits
- Eating habits
- Good behaviors

02. What are the factors that are influenced with the healthy family environment?



- Physical environment
- Mental environment
- Social environment
- Spiritual environment

03. What you mean by '' Health promotion''?

- Health promotion is the process of enabling people to improve their health by gaining control over factors affecting health.

04. Mention 05 features of the physical environment?

- Fresh air
- Clean water
- Healthy food
- Sanitary facilities
- Clean environment



05. Write some ways to get fresh air?

- Growing trees
- Design the compound and door to allow fresh air
- Avoid to burning polythene.

06. Mention a disease that can be avoided by drinking clean water?

- Diarrhoea

07. How do you remove some toxic chemicals and germs in the water?

- Drink boiled and cooled water

08. Write 04 ways do you get a good healthy food?

- Avoid excessive amount of sugar, salt and oil.
- Including vegetables, fruits and greens in our daily meal.
- pregnant mother and children should consume food rich in protein and minerals.
- Adolescences should consume food rich in iron and protein.

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09. Write 04 sanitary facilities?



- Drainage system
- Proper sanitary facilities
- Good garbage disposal system
- Cleaning the toilet daily.

10. How do you clean the environment?

- Keeping our home clean
- Using a toilet
- Dispose garbage in the proper manner
- Maintain and keeping the drainage system clean

11. What are the things that can be avoided by cleaning the environment?

- Breeding sides of dengue mosquitoes can be minimized by clean the house.
- Prevent the propagation of rats and destroy places where reptiles could live in.

12. Write 02 things that you can gain by sufficient space?



- Get fresh air
- Crate a pleasant environment

13. Write 02 effects of unnecessary noise?

- Disturbing others
- Giving troubles to do works

14. Write 02 ways to maintain a tranquil environment at home?

- Being mindful not to disturb the neighbors
- When Listening radios, watching televisions should maintain volume of sound at a suitable level.

15. Give 03 reasons for an accident?



- Ignorance
- Carelessness
- mistakes

16. Write 03 ways to minimize the accidents?

- Acting with awareness
- Taking proper care.
- Keeping the home environment clean.

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17. Write the factors of the mental environment?

- Love
- Protection
- Relaxation

18. Give 03 activities that are maintained by a strong family bond?

- Treat problems of others members as their own
- Inquiries about the needs of other members
- Treat one another with love.

19. Give 03 things that gain by living together with family?

- Love
- Protection
- Security

20. Mention 04 things that can be improved by spending the leisure time productively?

- Knowledge
- Creativity
- Enjoyment
- Physical fitness



21. Write 04 ways that we spend our leisure time?

- Reading
- Watching television
- Gardening
- Listening radio.

22. Give 04 groups in society?



- Family
- Hostel
- School
- Work place



23. Mention 04 features of good social environment?

- Discipline
- Unity and respect
- Productive communication
- Good interpersonal relationship

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24. With whom we can maintain good relationship that will make us happy?

- ❖ Family
- ❖ Neighbors
- ❖ Relatives
- ❖ friends

25. How do we make family ties stronger?

- ❖ At least half an hour each day to have friendly discussion with all the members of the family.

26. Give 04 features of the spiritual environment?

- ❖ Protecting nature
- ❖ Engaging in yoga exercises
- ❖ Engaging in suitable meditation
- ❖ Helping the needy.

27. Write 04 steps that taken to promote family health?



- ❖ Establishing policies regarding health
- ❖ Developing skills and knowledge on good health
- ❖ Creating a healthy environment
- ❖ Obtaining the support if the community



28. Write 04 policies regarding health.

- ❖ Minimizing the use of polythene
- ❖ Categorizing and disposal of waste according to its nature
- ❖ Limiting the intake of sugar and salt.
- ❖ Engaging in an out-door game with all the members of the family.

29. Describe the 3R concept to manage waste?

- ❖ Reduce
- ❖ Reuse
- ❖ Recycle

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30. Write 03 ways to develop skills and knowledge relevant the good health?

- Books
- Magazines
- papers

31. Give 04 contributions that can be taken by you for the community support?

- Helping neighbors
- Participating the community programs
- Sharing joy and grief with neighbors
- Shiramadana



32. What you mean by the term ''Community support''?

- Getting the support of various peoples in the society.

33. Give 04 best uses of the health service?

- If a member of your family has an infectious disease, inform the PHI.
- If a member of your family is pregnant, inform the PHM and get her assistance.
- Obtaining correct health services
- Getting advice on nutrition, reproductive health, life skills etc.

34. Write 03 persons to improving the health of the family?

- Public health midwife (PHM)
- Public health inspector (PHI)
- Medical officer of health (MOH)

35. Write 04 things that you can do as a student to maintain a healthy family environment?

- fulfilled by you towards the family
- follow correct food habits
- Avoid smoking, consuming liquor and narcotic drugs
- spend your leisure time constructively

36. Write 04 duties and responsibilities fulfilled by you towards the family?

- Maintain good relationship with parents, sibling, relations
- Share the day-to-day work of your household
- Actively participate in functions
- Discuss problems with parents openly.

36. How do you follow correct food habits?

- ❖ Avoid skipping breakfast
- ❖ Get into the habit of eating home-made food.

37. How do you spend your leisure time constructively?

- ❖ Engage in gardening
- ❖ Exercises or engaging in sports
- ❖ Engaging in literary activities.
- ❖ Engaging in aesthetic activities.

38. How to reduce smoking, consuming liquor and narcotic drugs?

- ❖ Make family members aware of the ill-effects of these.
- ❖ Guard yourself against attempts by others to get you involve in such acts and if it happens, inform your parents or teachers.
- ❖ Protect your siblings from getting involved in these types of activities.

39. How to convey health message to family?

- ❖ Share the latest knowledge with the family
- ❖ Dispel the wrong ideas and myths entertained by the family members.





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02 Let us experience love and protection

01. Define the term ''Human needs''?

- The things that we need, in our day-to-day life**.**
  Note: - love and protection is mental needs.



02. Give 03 basic needs of human?

- Food
- Water
- Air

03. What you mean by ''Love''?

- Love is a mental requirement that is essential not only during childhood but also in all ages.

04. What you mean by ''Protection''?

- Protection also mental requirements which is help to protect our live.

05. Give 02 peoples who give us love and protection?

- Family members
- External persons



06. Give some members of the ''Nuclear family''?

- Mother
- Father
- Brothers
- Sisters

07. Write down the members of the ''Extended Family''?

- Mother
- Father
- Brothers
- Sisters
- Grandmother/father
- Aunty/uncle

08. Define the term ''External persons''?

- Those who do not live in our home, but have some connection with the daily affairs of the family.

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09. List out of those who help you as External persons?



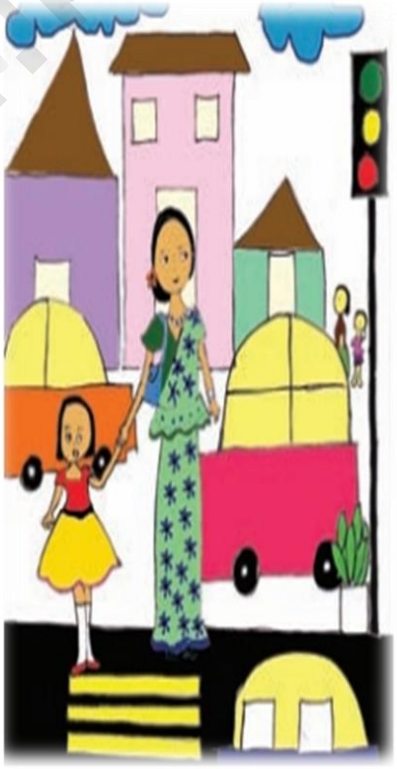
- Neighbors
- Peer groups
- Teachers
- Officers of private and government institutes.

10. Who is ''peer groups''?

- Peer groups are girls and boys of the same age who associate with us both at school and elsewhere.

11. Give 04 duties and responsibilities to be fulfilled by you for the society?

- Protecting public property.
- Respecting elders and parents
- Being obedient to parents and elders
- Working in a harmony with the neighbors



12. Write 04 harmful effects of not receiving love and protection?

- Disruption of education
- Dislike of school
- Unhappiness and disunity in the family.
- Losing good qualities
- Frustration



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03 Let us engage in folk games

01. Give 04 benefits that gain through participating in games and outdoor activities?

- Reduction of stress
- Freshness of mind
- Joyfulness
- Leadership

02. What is represented by the folk games?

- Folk games are strengthening your feelings for your nation and make you value and protect your cultural heritage.



03. Give 04 common features of folk games?

- Simplicity
- Creates unity
- Bring joy and happiness
- Participation is easy.

04. Write the types of folk games?

- Outdoor folk games
- Indoor folk games

05. Give 04 folk games according to the type of participation, equipment required and other factors?

- Games without equipment
- Games with equipment
- Pair games
- Group games



06. Give 04 outdoor folk games and indoor folk games?

Outdoor folk games with equipment

- Mewara keliya
- Lee keliya
- Mee gadima
- Pullaiyar gasima

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Lee keliya





Outdoor folk games without equipment

- ❖ Gudu panima
- ❖ Eluwan kema
- ❖ Iniweta peralima
- ❖ Gas kotu panima

Indoor folk games with equipment

- ❖ Olinda keliya
- ❖ Dolos keliya
- ❖ Pancha keliya
- ❖ Gal pelima

Indoor folk games without equipment

- ❖ Ath hangima (hiding hands)

07. Give 04 folk games that can be seen during the New Year season?

- ❖ Olinda keliya
- ❖ Kitti pullu
- ❖ Kili thattu
- ❖ Raban gasima



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04 Let us play volleyball



01. What is the National game of Sri Lanka?

- Volleyball

02. When was Volleyball introduced in Sri Lanka? By Whom?

- 1916- Robert Walter Camack

03. When was Volleyball introduced in the World? By Whom?

- 1895- William G Morgan

04. Write the skills of Volleyball?

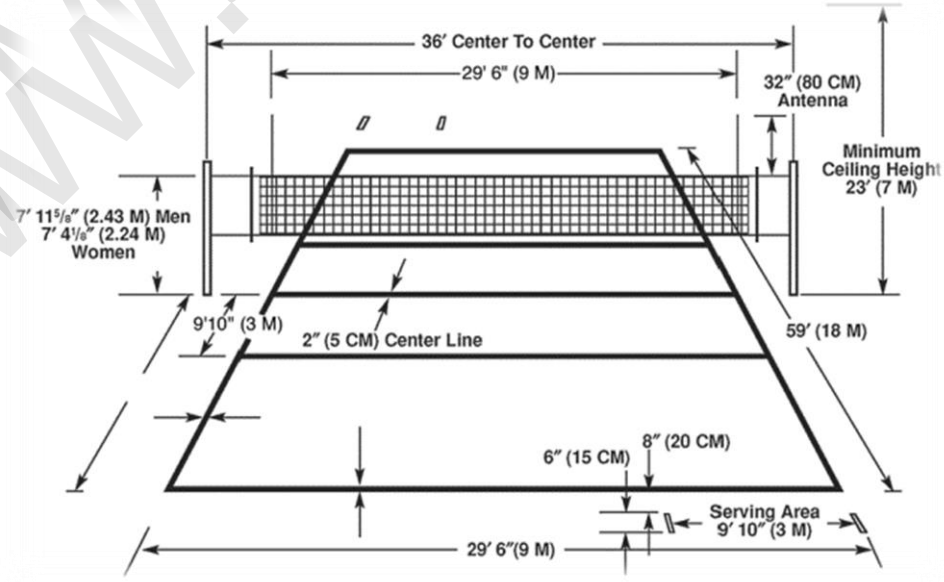
Serving	Receiving
setting	spiking
blocking	Court defending



05. What is the name of the place which volleyball was started?

- Minro net

06. Draw the volleyball with measurement.

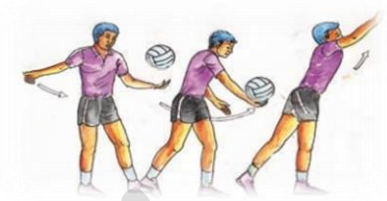


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05. What is ''Serving''?

- Serving is the sending of the ball, to the opposite side from the serving area in order to start the game.

06. What are the 2ways of serving in volleyball?



- Under arm service
- Over arm service

07. What are the techniques of the ''under arm service''? Or 03 stages of under arm serving?

- Before touching the ball
- Touching the ball
- After touching the ball

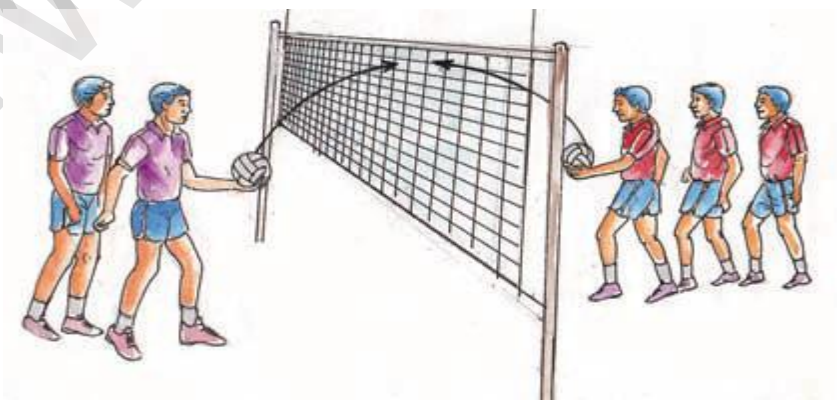
08. Write 02 activities related to under arm service.

- Follow the figures and instructions given below and engage in these activities

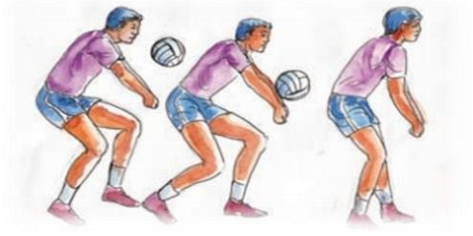
1. Do the action for under arm service without the ball many times.
2. Get into two groups and stand 5 to 6 metres apart from each other.
   Practise the under-arm service by serving the ball to the other team.
   Move to the back of your line when your chance is over



- The two teams stand about 4 to 5 metres away from the net on either side of it and using the under-arm service serve the ball to strike the net



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09. What is ''Receiving''?

- ❖ This means receiving the ball served by the opposing team.

10. What are the 02 ways of receiving in volleyball?

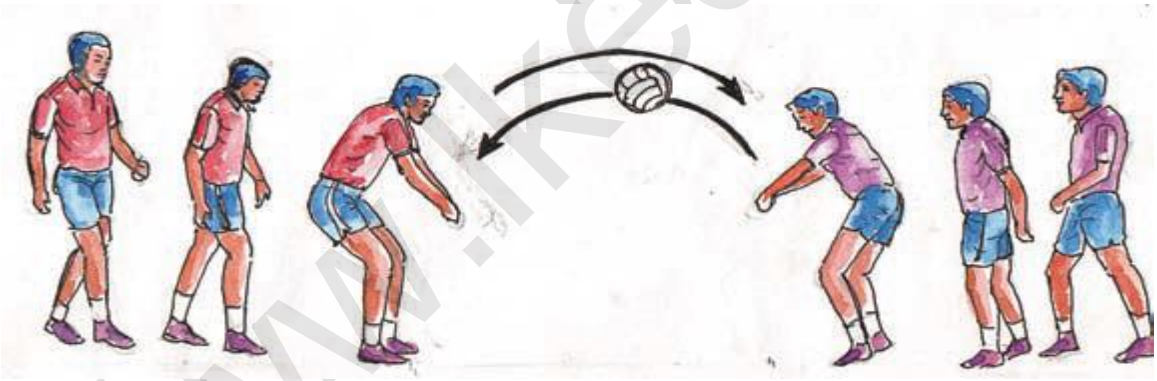
- ❖ Under arm receive
- ❖ Over arm receive

11. What are the techniques of the ''under arm receiving''? Or three stages of under arm receiving?

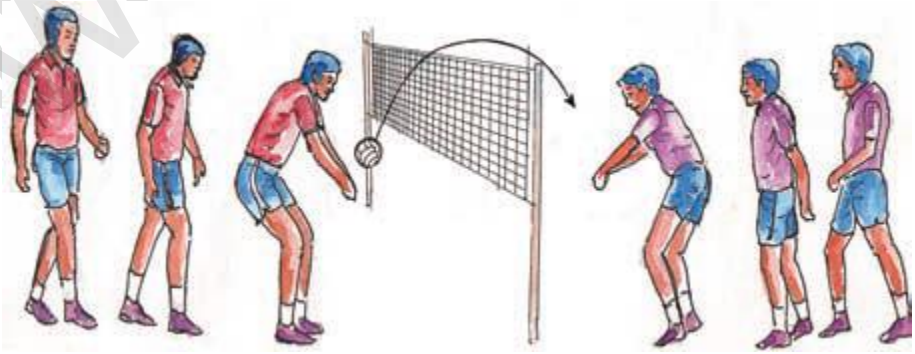
- ❖ Before touching the ball
- ❖ Touching the ball
- ❖ After touching the ball

12. Write 02 activities related to under arm receive.

- ➢ Get into two groups and stand 5 meters away from each other in two lines. Using the correct underarm receiving technique, hit the ball at the player at the front of the opposite team. After your chance is over run to the back of your line



- ➢ Engage in the above activity in a volleyball court where the net is tied, using the correct under arm receive, lined up on either side of the net.



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05 Let us play netball



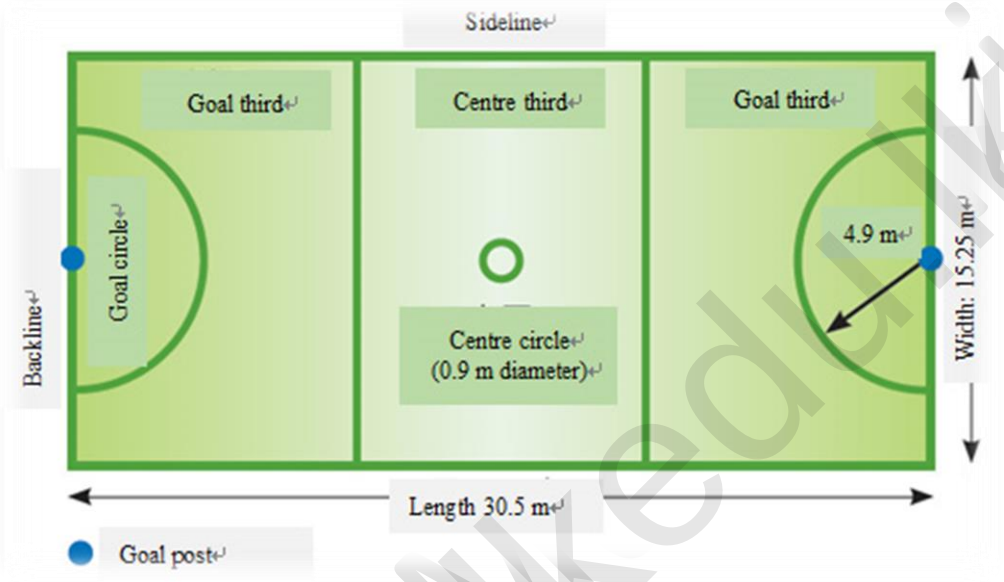
01. When was netball introduced in Sri Lanka? By Whom?

- 1921- Jenny Green

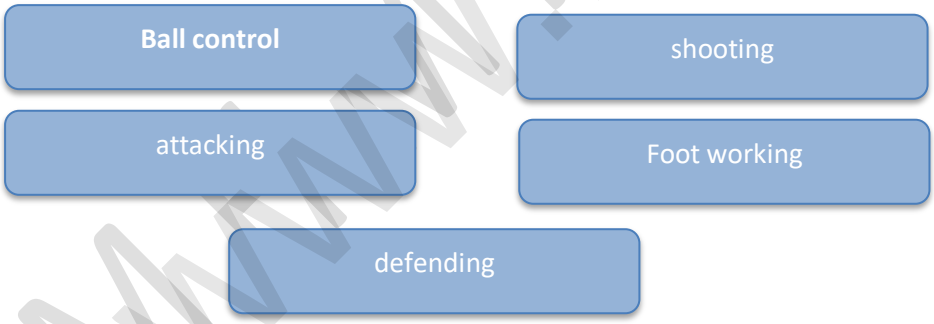
02. When was netball introduced in the World? By Whom?

- 1891- Jams Smith -U.S.A

03. Draw the netball court with measurement.



04. Write the skills of netball?



05. What is the meaning of ''Footwork''?

- Footwork is the correct movement of the feet with the ball in hand.

06. Give 03 activities to improve footwork?

- Run on the spot slowly and stop at the command.
- Run fast on the spot and stop at the command.
- Walk backwards and stop instantly at the command.
- Run fast, jump up, land and stop at the command.

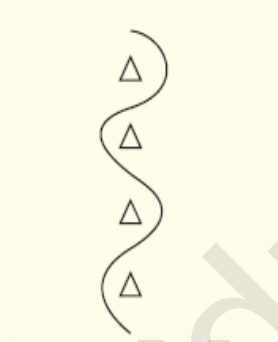
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Note: 07 players in one side of a netball match.

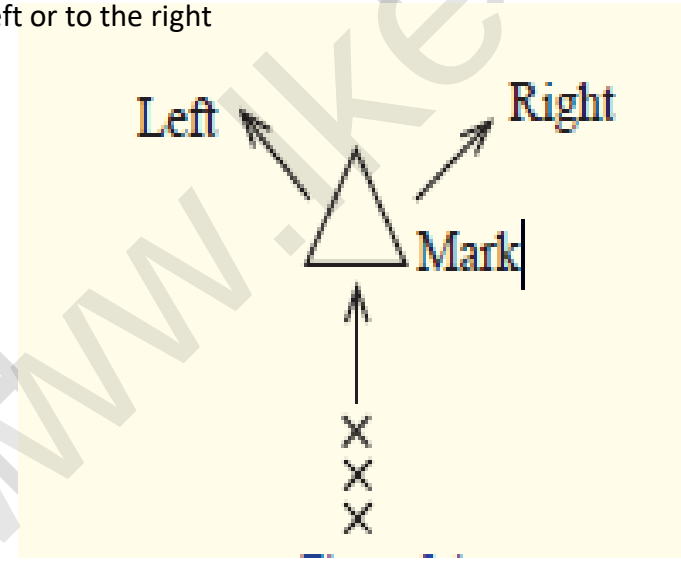
07. Write some drills to practice movement in different directions.

Perform the following drills to practise movement in different directions

1. To the command of your teacher run backward, forward and sideways, that is to the right and to the left non-stop.
2. Bend the knees slightly, stand on the balls of your feet and run forward, backwards and sideways (to the left and the right).
3. Place obstacles and run around them in a zig zag manner.



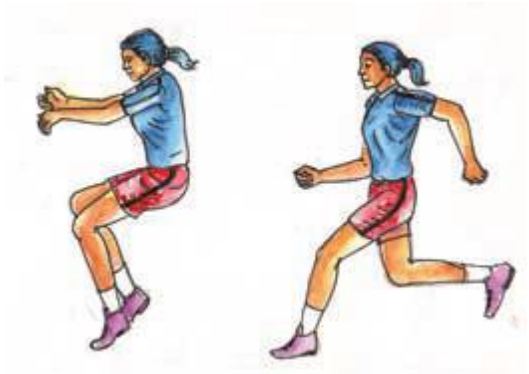
4. Run to a mark placed on the ground, touch the mark with the foot and then run to the left or to the right



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08. Write some drills to practice landing.

- Do a run-up, take off with one foot and land with both feet over a line.



- Do a run-up, take off with one foot and land with the other foot over the line.



09. Write some drills performed with the ball.

1. Land on both feet, keep one foot forward and throw the ball.
2. Jump up with both feet and throw the ball.
3. Stay at one place holding the ball, rotate yourself on the ball of your landing foot. Move or step with the other foot in the direction you need. (This is called pivoting)



4. Land on one foot, pivot and throw the ball.

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06 Let us play football



01. Who improved the football in world?

- ❖ Chinese

02. Who help to popularized in the world?

- ❖ British

03. When was introduced in Sri Lanka?

- ❖ The game was started in 1911 in Sri Lanka.

04. Write the skills of football?

- Dribbling
- Heading the ball
- Kicking
- Throw-in
- Controlling the ball
- Defending
- Goal Keeping

Note: Football is the most popular game in the world.



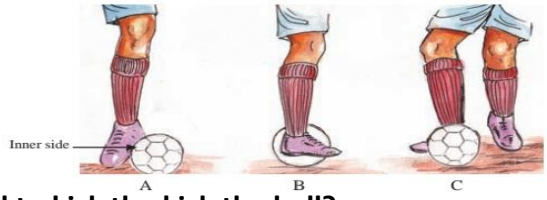


05. Name the 02 methods of kicking in football?

- ❖ Kicking with the inner side of foot- curved inside part of the foot
- ❖ Kicking with the instep of the foot- surface (outside of the foot)

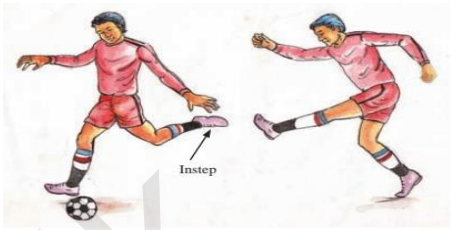
06. Give 03 instances where the inner side of the foot is used to kick the ball?

- A kick at the goal
- A corner kicks
- A penalty kicks



07. Give 03 instances where are the instep of the foot is used to kick the kick the ball?

- Penalty kicks
- To pass the ball to player at a distance
- To kick a stationary ball hard



08. Name 04 parts that used to control the ball?

- Head
- Chest
- Abdomen
- legs

09. Name 03 methods to control the ball in football?

- Controlling the ball with inner side of the foot
- Controlling the ball with the instep
- Controlling the ball with the sole of the foot







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10. Write some activities for practice.

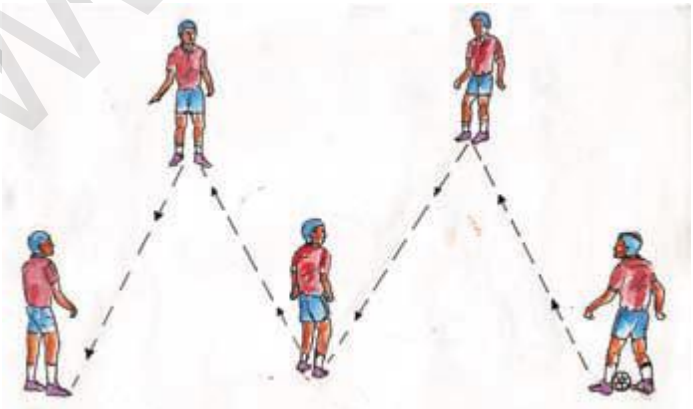
1. The player in front, kicks the ball with the inside of the foot and drives the ball to the other player.
The player who receives the ball stops the ball with the inside of his foot.
Everyone must practice this kicking and controlling technique



2. The player in front, kicks the ball using his instep driving the ball to the other player.
The player receiving the ball, controls the ball using his instep.
Everyone must practice this kicking and controlling technique.



3. Position yourselves in a zig zag pattern.
The player at the front, must kick the ball with his instep to the player next to him.
The player to whom the ball is passed must kick it to the next player using the inside of his foot after stopping the ball with the sole of his foot.
Everyone must get an opportunity to practise this.



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07 Let us learn correct posture

01. What is known as correct posture?

- Keeping each part of the body in correct alignment thus avoiding undue strain on supporting muscles and joints.

02. Write 04 sitting posture according to the situation?

- During studying
- When relaxing
- During religious activities
- During functions

03. Write 04 various sitting posture?

- Sitting on a chair
- Crooking sitting
- Kneeling
- Sitting on heels

1. Sitting on a chair



Figure 7.1

2 Sitting astride



Figure 7.2

3. Crook sitting



Figure 7.3

4 Kneeling



Figure 7.4

5. Sitting on heels



Figure 7.5

6. Sitting cross legged

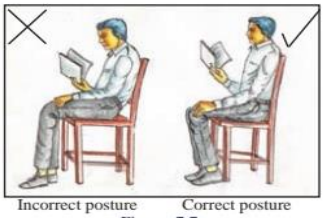


Figure 7.6

04. Mention 04 correct posture that should be maintained while sitting on a chair?

- The heal, shoulder and hip be in a vertical line.
- The back should be straight along the back of the chair
- The shoulder should be kept at ease.
- Both hands should be resting on tights.

When reading a book, seated on a chair



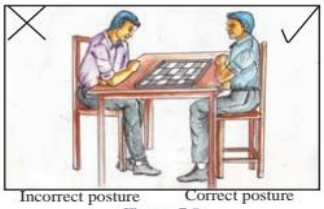
Incorrect posture Correct posture

Figure 7.7

05. Write 04 advantages of correct posture?

- Minimize discomfort and fatigue.
- Mental and physical satisfaction
- Comfort for internal organs
- Maintenance of balance

When playing games such as carom and chess



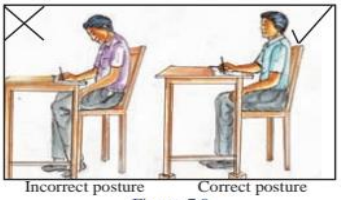
Incorrect posture Correct posture

Figure 7.8

06. Write 04 disadvantages of sitting incorrectly?

- Feel clumsy
- Feeling of pain
- Spine ailments
- Waste of energy

When using a table and writing seated on a chair



Incorrect posture Correct posture

Figure 7.9

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07. Write 04 various method of walking that can practice improve walking posture?

- Walking on toes and ball of feet
- Walking on heels
- Walking with shorts step
- Walking with long step

1. Walking on toes and ball of feet



Figure 7.10

2. Walking on heels



Figure 7.11

08. Write 04 advantages gained from a correct walking?

- Reduces tiredness
- Less expenditure of energy
- Increase efficiency
- Minimizes discomfort

3. Walking with short steps

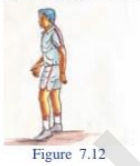


Figure 7.12

4. Walking with long steps



Figure 7.13

09. Write 04 different postures of lying down?

- Lying with face upwards
- Lying with face downwards
- Lying sideways
- Lying in crook position

5. Walking sideways



Figure 7.14

6. Walking backwards



10. Write 04 advantages of lying correctly?

- Minimizes discomfort to the body
- Avoids waste of energy
- Reduces damage to bones and other organs of the body.

8. Walking straight keeping the feet on either side of a line.

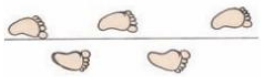


Figure 7.17

9. Walking on a straight line

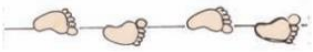


Figure 7.18

11. Write 04 causes of wrong posture?

- Unsuitable equipment
- Extreme tiredness
- Mental imbalance
- Carelessness
- Unsuitable environment

cing with equal strides



2. Lying face down

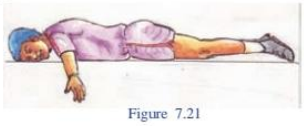


Figure 7.21

1. Lying face up



3. Lying sideways



Figure 7.22

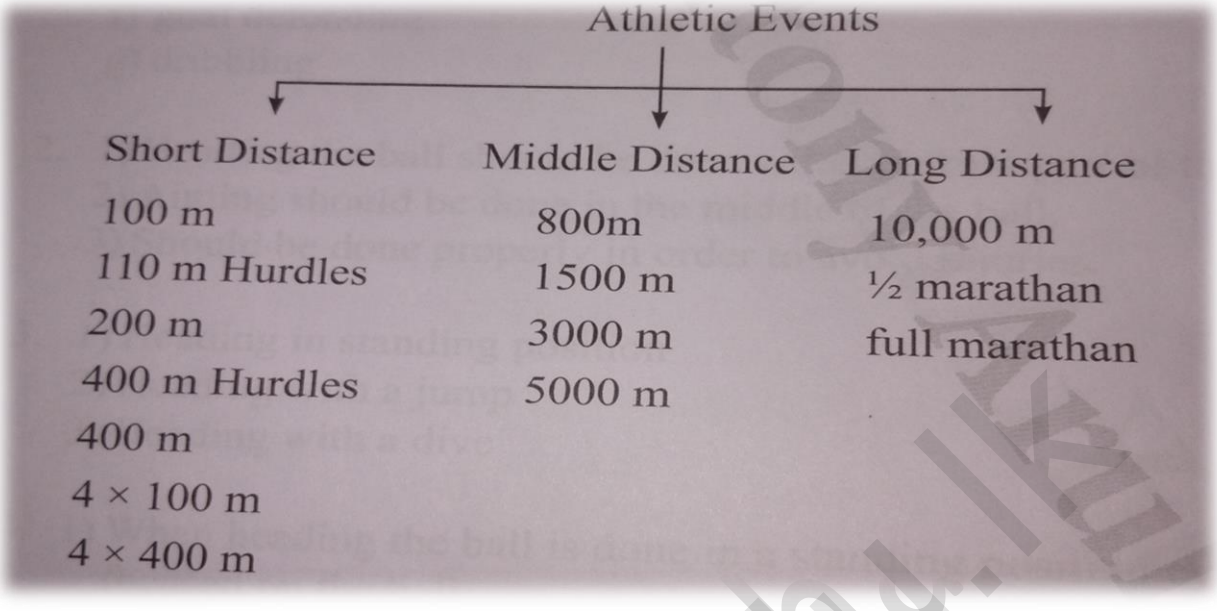
4. Crook lying



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08 Let us train for athletics

01. Classify the running events according to distance and give some example.



02. What is the main different between walking and running?

- During running both feet will be above the ground at a certain moment of time.
- That is both feet will be in the air at the same time.


Walking


Running

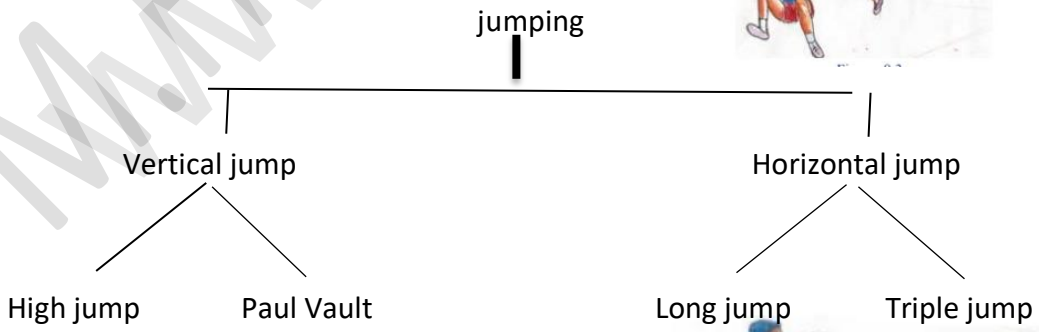
03. Write 04 exercises to improve running?

- Walking exercises
- Skipping exercises
- Jogging exercises
- Running drills

04. Write down the main parts of jumping with example.







05. Write the main stages of jumping?

- Take-off
- Flight
- Landing



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06. Mention 04 exercises to improve jumping techniques?

1.Hopping with one leg (left and right)



2. Jumping with both legs



3. Taking off with one leg and landing on both legs



4. Jumping over objects



07. Write 03 throwing events?

- Discus
- Shot put
- Javelin



Throwing discus



Throwing Shot put



Throwing Javelin

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09 Let us develop healthy eating habits



01. Write 03 uses of healthy diet.

- To growing
- To get energy
- To stay healthy

02. Write the main parts of nutrients with example.

- Macronutrients- carbohydrate, protein and lipids (oils and fat)
- Micronutrients- vitamins and minerals

03. How we can measure the amount of energy?

- Through calories.

04. Explain the importance of macro nutrients and micro nutrients through the chart.

Macronutrients

Nutrient	Food sources	Functions
1. Carbohydrate	rice, jack, bread, string hoppers, pittu and roti, yams (potatoes, sweet potatoes) sweets and sweet foods (sugar, sugar cane, sweets)	Provides energy Maintains blood sugar levels (glucose)
2. Protein Animal Protein Plant protein	meat, fish, eggs, dried fish, sprats. pulses, lentils, soya products	Contributes to the growth and repair of tissues and bones
3. Lipids oil and fat	coconut, peanuts, cream of milk, dairy food (butter, cheese) meat, oils (coconut and palm oil)	Provides energy Helps in the absorption of vitamins that dissolve in fat






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Micronutrients

Vitamins

Vitamins	Food sources	Functions
Vitamin A	yellow and dark green vegetables, liver, yolk of eggs, milk and milk foods	Night vision improvement Growth of bones Protection of reproductive health and the skin Improves immunity
Vitamin B (B1, B2, B6, B12)	rice with bran, milk, yolk of eggs, liver, grain, soya beans	Smooth function of heart, nerves and digestive system
Vitamin C	nelli, oranges, mandarin (fruits of citrus family)	Growth and repair of tissue Helps to heal wounds Contributes to the proper functioning of the immune system
Vitamin D	cheese, butter, yolk of egg, cream of milk, fish oil. (Vitamin D is produced naturally from sunlight in the morning)	Helps in the growth of bones, teeth and tissue
Vitamin E	liver, yolk of eggs, butter, green vegetables, cereals	Maintains a healthy skin
Vitamin K	spinach, soya beans, broccoli, cabbage, carrot, cauliflower, beans, grapes, pears, plums	Helps in the clotting of blood

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Minerals

Nutrients	Food sources	Functions
Calcium	milk and milk products, green leaves, pulses, dried sprats and small fish	Growth of teeth and bones
Phosphorus	milk, cheese, eggs, grains, fish, sea-shells, soya, pulses	Strength of bones and teeth
Iron Haem iron	meat, liver, fish, dried sprats, dried fish, eggs	Production of haemoglobin in the blood
Non haem iron	pulses, lentils, green leaves (sarana, thampala), drumsticks	Improves memory power
Iodine	fish, salt with iodine, sea food, eggs, cheese, green vegetables	Prevents the formation of goitres Reduces miscarriages Prevents mental retardation
Zinc	sea food, spinach, pumpkin seeds, cadju, pork, chicken, beans, mushroom, liver, cereals	Improves enzyme activity Helps growth of muscles, bones and skin





05. What you mean by fibre food?

- Fibre is the indigestible part of plant food. (green leaves, fruits, vegetables, soya, gram)



07. Write 04 benefits we get by including fibre rich in our diet?

- Helps to pass faeces
- Helps to control body weight
- Reduces the danger of intestinal cancers
- Reduces eating excess food

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08. What is known as pure water?

- ❖ Colourless, odourless, liquid which does not have any externally visible pollutants.
- ❖ According the WHO water with a pH value in the rang of 6.6-7 is suitable for drinking.

09. Why is water being necessary for us?

- ❖ To control the body temperature
- ❖ To remove the waste matter from the body.
- ❖ To avoid dehydration
- ❖ To properly maintain the digestive, excretory, and absorption process.

10. Write 04 diseases that can cause using unclean water?





- ❖ Cholera
- ❖ Dysentery
- ❖ Yellow fever
- ❖ Typhoid

11. What is known as water balance?

An ordinary person requires 1.5 - 2 Litres (7 - 8 glasses) of water every day. But according to the body weight the water requirement could differ.

$$\text{water requirement per day (litres)} = \frac{\text{Weight of body (kg)}}{30}$$

12. Write 04 ways how body loses water?

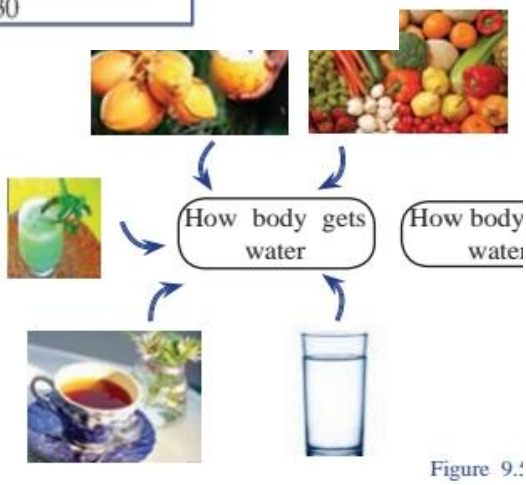


Figure 9.

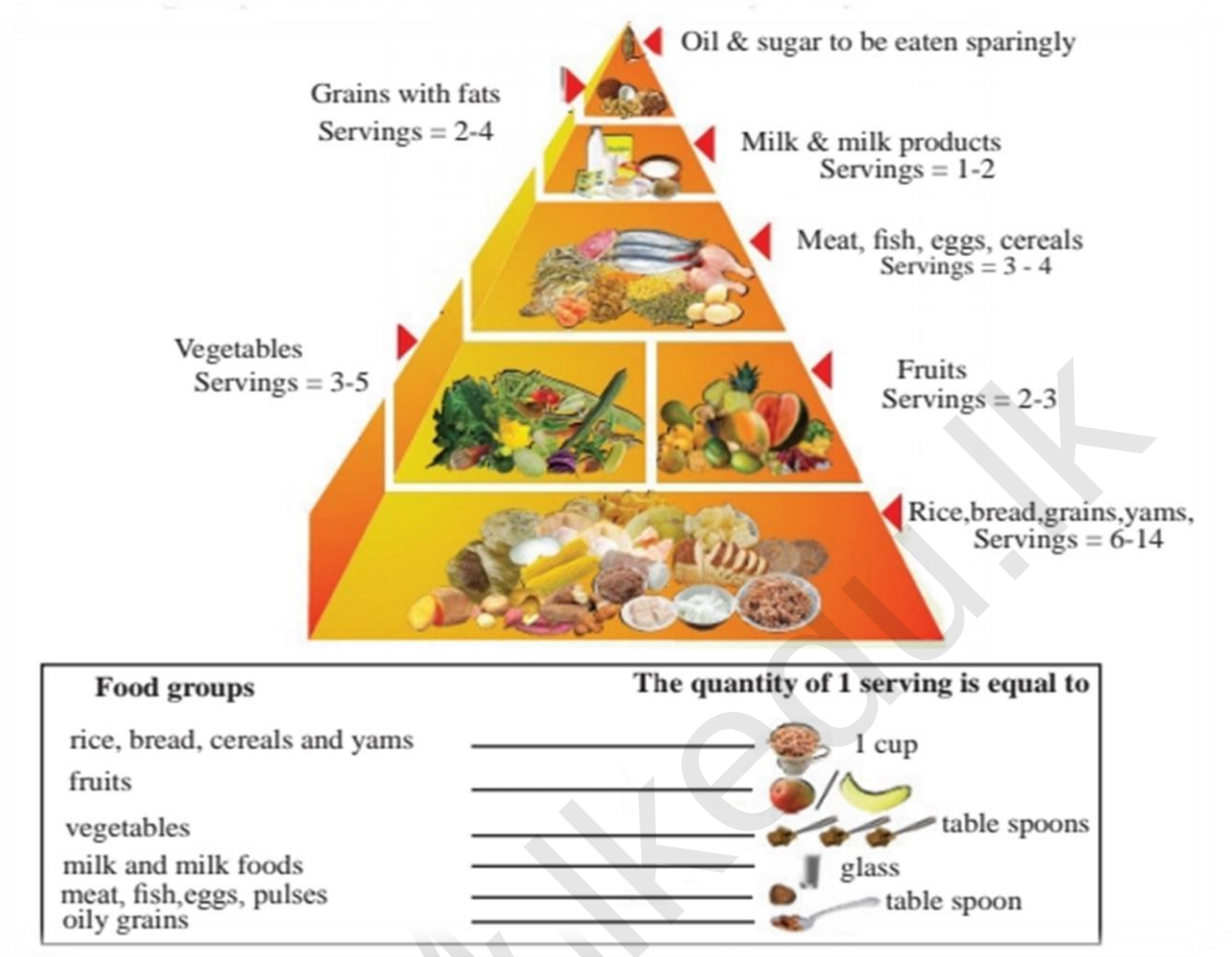
- ❖ Sweat
- ❖ Urine
- ❖ Secretions
- ❖ breath

13. Write 03 ways by which we can drink more water?

- ❖ Keep a measurable bottle of water on your computer.
- ❖ Always keep a bottle of water with you when engaging in sports.
- ❖ Carry a bottle of pure water when you leave your home.

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14. Draw the food pyramid.



15. List out the food groups with nutrients content.

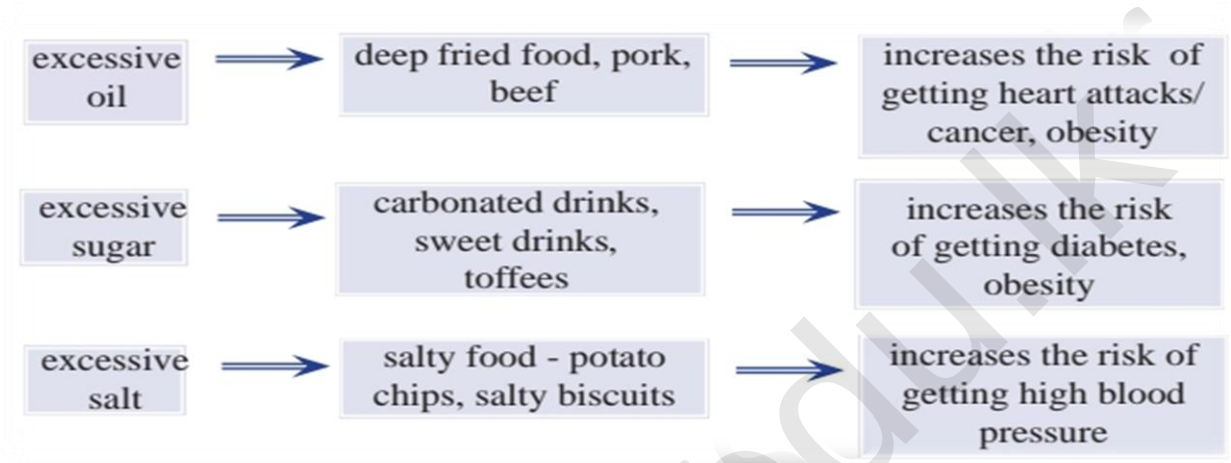
Food groups	Nutrient content
grains and yams	carbohydrate, protein, fat, vitamins and minerals
vegetables	vitamins, minerals, carbohydrate, protein
fruits	vitamins, minerals, carbohydrate
meat, fish, eggs, dried fish, cereals, greens	protein, fat, vitamin, minerals
milk, milk products (butter, cheese)	fat, vitamin, minerals, carbohydrate, protein
sugar	carbohydrate
oil	fat

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16. State 04 things you have to keep in mind when planning a meal.

- ❖ The food must have a certain level of nutrition
- ❖ Colour, odour, taste
- ❖ Variety in food items
- ❖ Using different methods of cooking

17. What are the diseases caused by excessive amount of oil, sugar and salt?



18. Write 03 ways that should be followed in order to maintain the cleanliness of food?

- ❖ You must not wear jewellery, watches, pins etc. when preparing food.
- ❖ Use hand wash before handling foods.
- ❖ People who prepare food must always wear suitable head ware, gloves, shoes, mask and protective dresses.

19. Write 04 things to remember when buying food?



- ❖ Check the production and expiry date.
- ❖ Be mindful about the freshness of food.
- ❖ Consider the requirements of the family.
- ❖ Make sure that the SLS is (Sri Lanka Standards) there.

20. Give 02 uses of traditional condiments in food preparation?

- ❖ Help digestion
- ❖ Improve appetite.

21. Explain the medicinal property of few spices we use.

- ❖ Ginger- for indigestion
- ❖ Dill seeds- reduce cholesterol in blood
- ❖ Turmeric- act as a disinfectant and improve mental functions

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- ❖ Cinnamon- increase the function of insulin, act as an anti-oxidant, reduce body fat.
- ❖ Garlic- help kill cancer cells, help the immune system.

22. Write 04 preserving method and food that can be so preserved.

Methods of preserving food	Food that can be so preserved
Drying 1. with sunlight 2. heating (fire)	fish, vegetables, meat
Salting	dry fish, jadi, lime pickle, mango
Smoking	meat, fish
Packing - with arecanut leaves	jaggery
Chemical methods - soaking in vinegar, honey and sugar	pickle, meat, fruits

23. What are the traditional foods in our country with high nutritional value?

- ❖ Mixed green malluma
- ❖ Seven vegetable curry (hath maluwa)
- ❖ ''Diya bath''- rice with water
- ❖ ''Talapa''- thick porridge.



24. How you can contribute to find nutritional food?

- ❖ Taking nutritional food at the correct time.
- ❖ Eat home-made food whenever possible.
- ❖ Proper selection of packeted and tinned food items.
- ❖ Selection of short eats full of nutrients. (healthy snacks)

25. Write 03 instances when packeted food must not be used?

- ❖ When it is damaged or crushed
- ❖ When it has passed its expiry date
- ❖ When there is discolouration

26. Write 03 instances when tinned food should not be used?

- ❖ When the can or lid is bulging
- ❖ When the can is dented
- ❖ When the tin is damaged or leaking

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27. How we can effectively use the home garden and the school compound?



- ❖ Management of space
- ❖ Use rain water as far as possible for your cultivation
- ❖ Use carbonic fertilizer for your cultivation
- ❖ Use natural methods to minimize attacks from insects.



Use of pots



Use of discarded sacks



Use of discarded wooden boxes



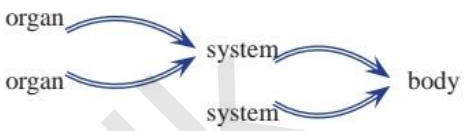
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01. What you mean by an organ system?

- ❖ Many different organs in the body working together to perform a psychological function or process.

02. Write some systems and functions of that.

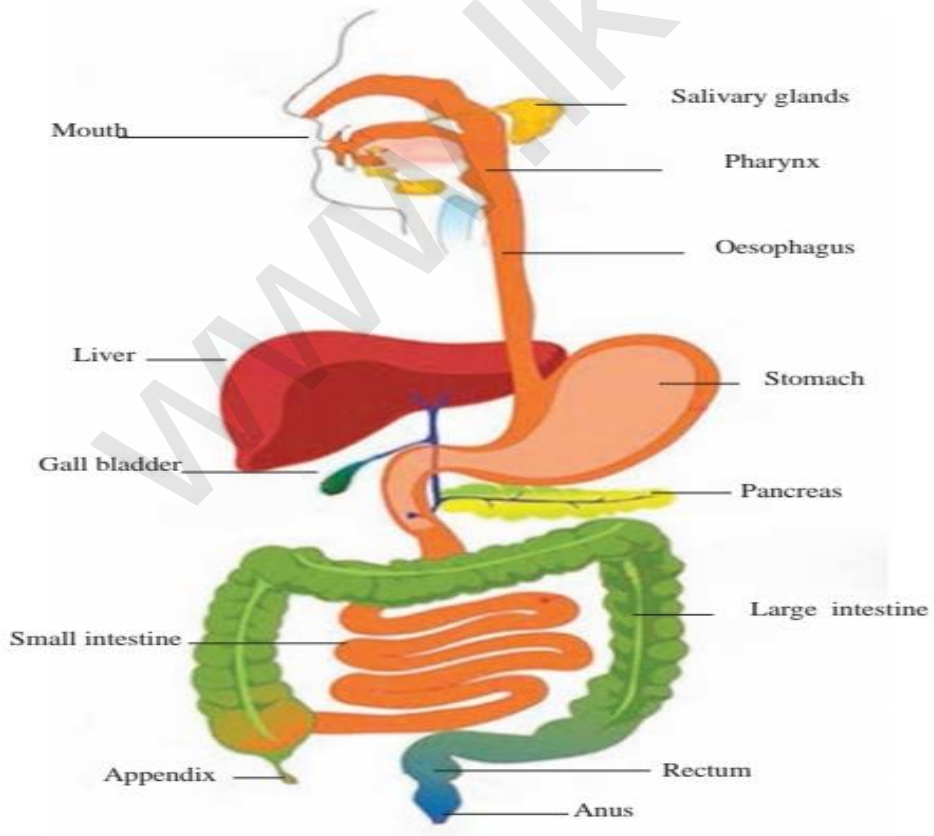
- ❖ Digestive system- digestion of food and absorption of nutrients
- ❖ Circulatory system- circulation of blood
- ❖ Immune system- protection from diseases
- ❖ Respiratory system- breathing



03. Describe the function of digestive system?

- ❖ The function of the digestive system is to break down the solid food into smaller particles and absorb the nutrients such as glucose into the blood stream and thereafter discard the waste matter produced in semi solid from. The food so absorbed is necessary for the growth of the body, to protect us from diseases and to supply energy required for various activities.

04. Draw the digestive system.



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05. Name the several main parts of the digestive system.

Mouth

- The teeth in the mouth are capable of breaking and grinding even hard solid food. In grade 6 we learnt that children have 20 deciduous teeth and adults have 32 permanent teeth.
- The food broken down by the teeth into smaller pieces are mixed with saliva produced by the salivary glands. Thereafter the tongue while making you feel the taste of food, helps in swallowing it, pushing the food down the pharynx.
- The nose cavity and the mouth cavity open into the pharynx. The oesophagus and the larynx start from there. When swallowing the food, the epiglottis covers the larynx and prevent food passing into the trachea. The swallowed food moves down the oesophagus. When you talk while eating this process does not happen properly and the food accidentally enters the trachea causing you to choke. This is colloquially referred to in Sinhala as ''Ismolle yama'' or ''pita ugure yama''.

Stomach

- The food travels through the oesophagus and enters the stomach. The stomach is a sack made up of muscles that can expand gradually. Muscle action in the stomach causes the food to breakdown further.
- The digestive juices secreted by the salivary glands, the wall of the stomach, the liver and the pancreas help to digest the food. The bile produced by the liver is stored in the gall bladder.

Small intestine

- The small intestine is a narrow but long tube. The main part of digestion takes place in the small intestine. The digested food is absorbed almost entirely here.

Do you know?

- The small intestine of an adult is about 7 metres long. You may be amazed to note that there is such a long tube in your body. As the small intestine is so long the food remains there for a long time and most of the absorption takes place here.

Large intestine

- After the absorption of nutrients in the small intestine, the water contained in the food and minerals are absorbed in the large intestine. The semi solid waste left over is known as faeces.
- At the place where the small intestine meets the large intestine there is a small tube-shaped sac which is known as the appendix.

Rectum

- The faeces are temporarily stored in the rectum. The rectum can control the process of defecation

06. What you should do to keep the digestive system healthy?

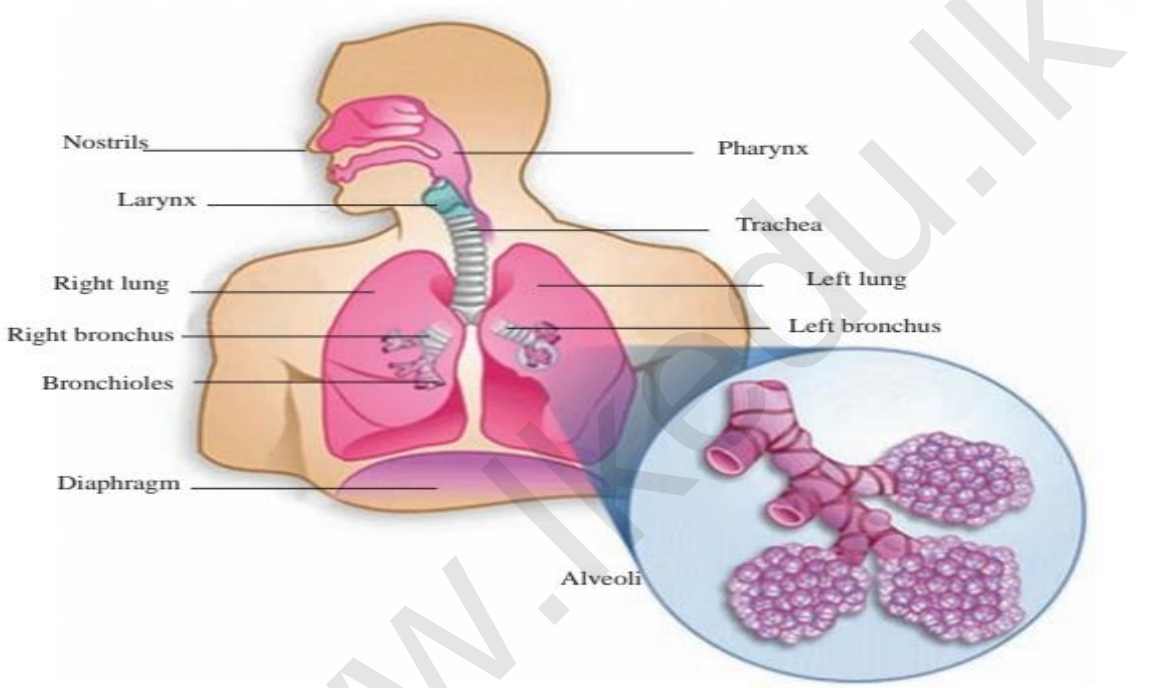
- Take meals at the correct time
- Take meals with the proper nutritional value
- Take clean food and drink sterilized water
- Drink enough water
- Avoid smoking, drinking alcohol and chewing betel

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07. What is the function of the respiratory system?

- ❖ The function of the respiratory system is to transport oxygen from the atmosphere into blood and release carbon- dioxide from blood into the atmosphere.
- ❖ Oxygen is necessary to produce energy. Although we can live for a day or water and food, we cannot live without oxygen for more than a few minutes. The oxygen absorbed by the lungs is taken to various organs and cells of the system through the blood. The carbon dioxide formed in the process of producing energy, is taken back to the lungs by blood.

08. Draw the respiratory system.



09. Name the several main parts of the respiratory system.

Nose

- ➢ In the nose, there are small hair like projections called cilia and a sticky substance called mucus. Cilia trap dust particles and germs contained in the air breathed in. Dust particles and germs also stick to mucus, further purifying the air breathed in. There are many blood capillaries in the nostrils which warm the air taken into the nose before it enters the lungs. The nasal tract opens into the pharynx.

Pharynx and larynx

- ➢ Pharynx is a space common to both respiratory and digestive systems. The larynx starts from the pharynx. The larynx helps to produce our voice.

Lungs

- ➢ The main organ in the respiratory system is the lung. The lungs are protected by the rib cage. The lungs are made up of millions of sacks filled with air known as alveoli which are covered by a delicate membrane.

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Trachea

- Think of a tree with two branches. If the trunk is the trachea the two branches are the bronchi. The trunk divides further, finally into twigs with leaves at their ends. The bronchus divides further into branches called bronchioles that open into small sacs called alveoli referred to above.
- From the air in the alveoli, oxygen diffuses into the blood through the capillaries. The carbon dioxide in the blood capillaries is released into the alveoli.
- In the above activity you would have noticed that the rate of your breathing increased after running around the school ground. The normal rate of breathing is about 20 times per minute. One's breathing rate increases when one is doing exercises or when one gets frightened.
- That is because the respiratory system supplies extra oxygen required to produce extra energy to cope with such situations.

10. What you mean by respiration?

- Respiration is this process of exchanging gases in the lungs and transporting these gases between the lungs and other organs of the body, through the blood stream.

11. What you mean by inhalation?

- The process of taking air into the lungs.

12. What you mean by exhalation?

- The process of exhaling air from the lungs.

13. What should be done to maintain a healthy respiratory system?

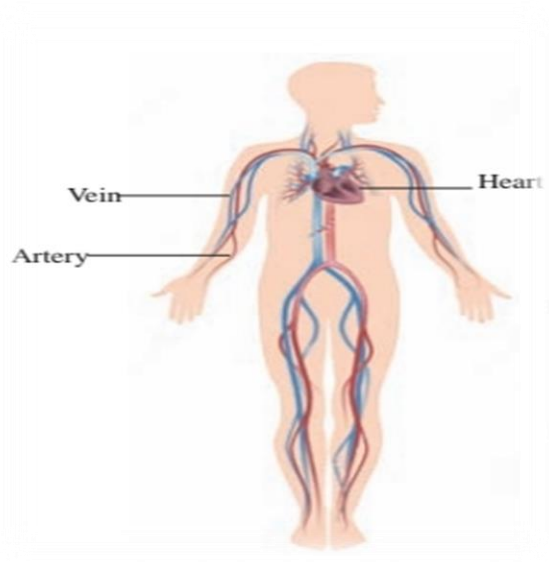
- Engage in exercises
- Stay away from polluted environments
- Avoids using objects to clean your nose
- Refrain from smoking and staying near others when they smoke

14. What is the function of the circulatory system?

- The blood streams transport oxygens and nutrients required to all the organs and cells in the body. It also transports the carbon-dioxide produced in the cells during respiration to the lungs, and all other waste matter to the liver and the kidney. It is the circulatory system that circulate bloods in the entire body.

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15. What is the main organ of the circulatory system?



Heart

- The main organ of the circulatory system is the heart. It is situated in the rib cage, between the two lungs and slightly to the left. The heart acts like a pump and supplies the necessary power to make the blood flow through the blood vessels. The heart is an organ made up of muscles.
- As the muscles of the heart don't get exhausted, the circulation of the blood continues throughout the life. There are four chambers in the heart namely the right and left atrium and the right and left ventricles.

Blood vessels

- The blood vessels that take the blood away from the heart are called arteries. The blood vessels that bring the blood back from the organs to the heart are called veins. The arteries and veins are connected to each other through the capillaries. The capillaries are like fine fibre and when blood travels through them, substances necessary for the cells are absorbed into the cells and waste matter is released out of the cells into the blood. Other than transportation of substances the blood circulation helps to maintain body temperature.



Figure 10.5

Feel your pulse by placing your left finger tips a little above the place where your right thumb meets the wrist as shown in figure 13.5

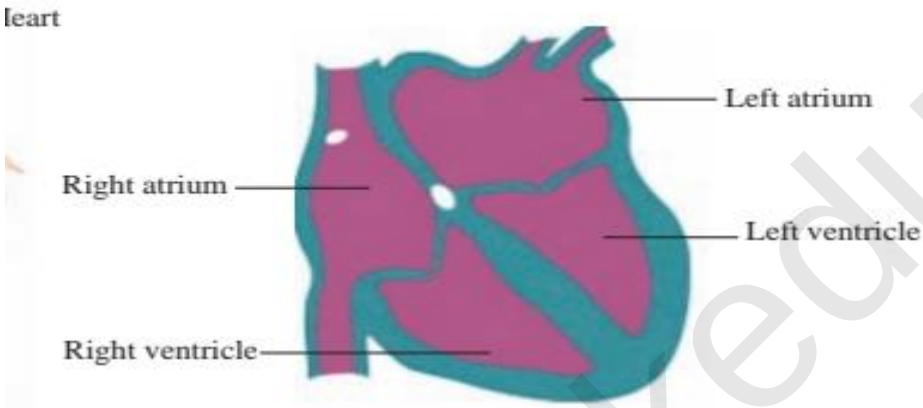
- When we do exercises or get excited our heart beat increases and then the pulse rate also increases. The heartbeat of an adult is generally 72 beats a minute.

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Blood

- When you get a wound, you may see blood flowing out of it. There are different types of cells in your blood. The red blood cell is one such type. The blood is red because of the red pigment with iron in it.
- Red blood cells help to transport both oxygen and carbon dioxide. The white blood cells fight against germs that enter the body.
- When you have bleeding the platelets in the blood help to form blood clots and stop bleeding.
- The blood cells not only transport different gases and nutrients, but also transports medicines, hormones and a variety of enzymes.

16. Draw the heart.



17. What is the meaning of ''arteries''?

- The blood vessels that take the blood away from the heart.

18. What you can do to keep the circulatory system healthy?

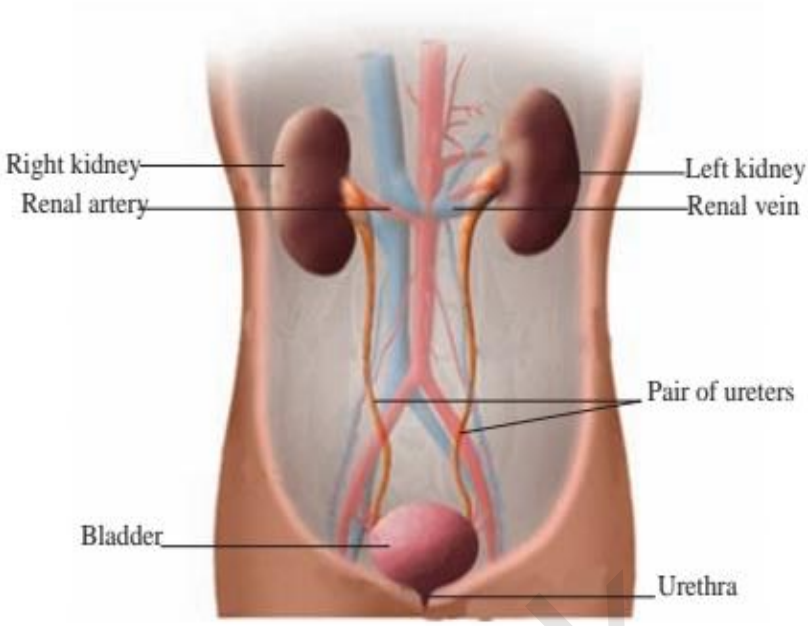
- Exercise daily
- Have a balanced diet daily
- Drink enough water
- Avoid smoking and be mindful about its ill effects

19. What is the function of excretory system?

- The excretory system is responsible for the removal of wastes produced in the body.

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20. Draw the excretory system.



21. What is the main organ of excretory system?

Kidney

- The main organ in the excretory system is the kidney. The two kidneys shaped like bean seeds, are placed towards the back of the abdomen on either side of the vertebral column. There are about a million nephrons in each kidney that help to filter the urine. Urine is formed in the nephrons when blood travels through the kidney.

Urinary bladder

- The urine produced by the kidneys is taken to the urinary bladder through the ureter and it is stored there. The expandable, muscular walls of the urinary bladder can store the urine. The urine is passed out when the need arises. Not only the kidneys but also the liver, lungs and the skin help in the excretory process.

22. How to maintain a healthy excretory system?

- Drink a sufficient amount of clean water
- Pass urine when the needs arise
- Keep reproductive organs clean
- Minimize the intake of salt
- Avoid smoking and the use of alcohol

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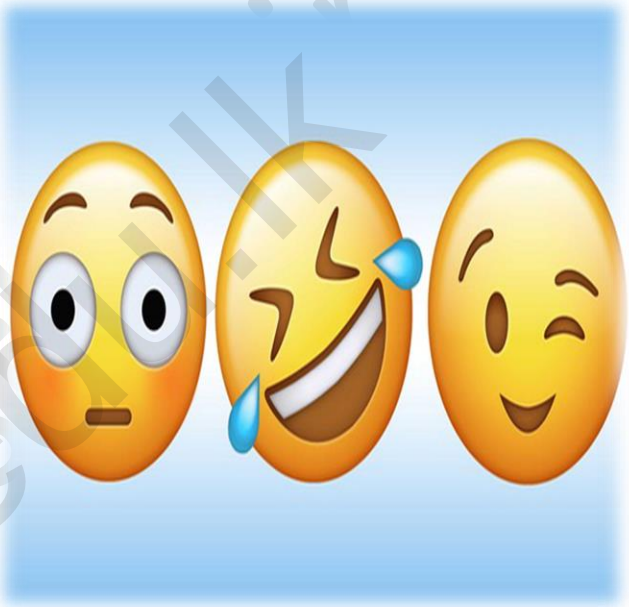
11 Let us balance our emotions

01. What is known as emotions?

- Such condition of mind or feelings that suddenly arise and affect our minds making us react in various ways.

02. What is known as emotional balance?

- Ability to maintain your conduct well by reacting intelligently when you experience an emotion.



03. Write 04 pleasant emotions?

- Happiness
- Excitement
- Enjoyment
- Gratitude

04. Write 04 unpleasant emotions?

- Anger
- Fear
- Jealousy
- Sadness

05. Write 04 factors that affect emotional balance?

- Situation
- Understanding
- Personality
- Behaviour of others

06. Write 04 skills that help in maintaining emotional balance?

- Empathy
- Good inter-personal relationship
- Effective communication
- Minimize mental stress



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07. Write 04 things we could do when we have unpleasant emotions?



- Avoid such situations
- Take deep breath quietly
- Drink a glass of water slowly
- Engage in a method of meditation that you know.

08. Mention 04 important of emotional balance?

- Avoiding unpleasant feelings that arise with stressful emotions.
- Developing self-esteem
- Developing good inter-personal relationships and becoming a person with a pleasant personality.
- Developing your capacity to cope with challenges by enhancing your efficiency.

09. Write 04 various requirements that should be fulfilled within the family?

- Basic needs and requirements
- Self-esteem
- Good inter-personal relationship
- Team work



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12 Let us respect the rules, regulations and ethics in sports

01. What is the meaning of rules and regulation?

- Rules and regulations are an agreed set of conventions in accordance with which a sport has to be conducted.

02. What is known as ethic in sport?

- Moral principles and values that govern a person's conduct are referred to as ethics.

03. Write 04 importance of rules, regulation and ethic in sport?



- For the existence of sports
- To minimize accidents
- For fair play
- To maintain the dignity of sports

04. Write 04 benefits that you and your family will get by adhering to rules, regulations and ethics in Sport?

- To be a law-abiding citizen
- To develop your personality
- Develop self esteem
- Your family will be proud of you

05. Write 04 benefits that a school enjoy by adhering to rules, regulations and ethics in sports?

- Inter-school co-operation will improve
- Personal qualities of students will develop
- Students will be recognized and respected in the society
- The school will have amiable students with good team spirit

06. Write 04 benefits derived by the society by adhering to rules, regulations and ethics in sports?



- Team spirit will be developed
- Active, honest and law-abiding citizens can be produced
- Victory and defeat can be taken in the correct spirit
- Unity, friendship and co-operation will foster in the society.

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07. Write 03 your duty and responsibilities in relation to rules, regulations and ethics in sports?

- ❖ Honour the decision of the umpire/referee
- ❖ Develop qualities of good sportsmanship
- ❖ Encourage others to abide by rules and regulations.

08. Write 03 things you could do to honour the decision of the umpire/ referee?

- ❖ Appreciate the services rendered by umpires and referees
- ❖ Treat them with respect from the beginning to the end of the game.
- ❖ Humbly and courteously acknowledge when a fault is pointed out.
- ❖ Avoid arguing with insulting or being sarcastic of an umpire or referee.

09. Write 04 qualities of good sportsmanship that should be developed?

- ❖ Acting with team spirit
- ❖ Acting with a sense of fairness
- ❖ Accepting victory and defeat equally well
- ❖ Act as a leader when required.







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13 Let us develop our physical fitness

01. What is the meaning of physical fitness?

- Combination of factors we can improve, for the maximum and correct performance of physical activities.

02. Write the physical fitness factors?



- Speed
- Strength
- Flexibility
- Coordination
- Endurance

03. What is known as speed?

- Doing an activity in the shortest possible time.



04. What is known as strength?

- Strength is an one's ability to do something.

05. What is known as flexibility?

- Ability to move parts of your body such as your hands and legs bending and stretching them freely at joints.

06. What is known as co-ordination?

- Ability to coordinate the functions between different parts of the body efficiently.

07. What is known as endurance?

- Ability to engage in an activity with ease for a long period of time.

08. Write 03 activities to improve speed?

- Shuttle relay
- Fishing net game
- Jumping and changing circles



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09. Write 03 activities to improve strength?



- Escape a trap
- Jumping standing broad
- Cock fight

10. Write some activities to improve flexibility?



- Gymnastic rolling forward
- Rolling backward

11. Write an activity to improve co-ordination?

- Breaking the tall

12. Write the measurement of speed?



Figure 13.8

Measure the time taken to run 50 metres. After that calculate the speed using the following method.

$$\text{Speed} = \frac{\text{Distance}}{\text{Time}}$$

$$\text{speed} = \frac{50 \text{ metres}}{\text{Time taken (seconds)}}$$

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13. Write 02 tests to measure strength?

1. Skill of Jumping up



a Figure 13.9 b

As in the figure 13.9a lean against the wall and raise your hand. Mark the point at which you touched the wall. Now using all your strength jump up and touch the wall (figure 13.9b). Mark that point too. Measure both heights and see.
The greater the height jumped, the stronger your legs are.

2. Throwing skill



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14. Write a test to measure flexibility?

Test on bending forward



Figure 13.11

As in the figure 13.11 place the measuring tape on a small strong table. Stand on the table, bend the trunk as shown and try to touch the lowest point possible.
If you can touch the centimetre +1 mark, your flexibility is good.

15. Write some activities to measure co-ordination?



Figure 13.12

Activity coordination test

1. Stand up.
2. Bend knees and touch the ground.
3. Stand up again.
4. Clap.
5. Bend down again and touch the ground.

Count how many times you can do this within 20 seconds. The greater the number of times you do within the time, the better your co-ordination is.

16. Write a test to measure endurance?



600 meter sprint

From the starting point run 600 meters and measure the time taken to complete the distance. The lesser the time taken, the better your endurance is.

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14 Let us get ready for adolescence

01. What is adolescence?

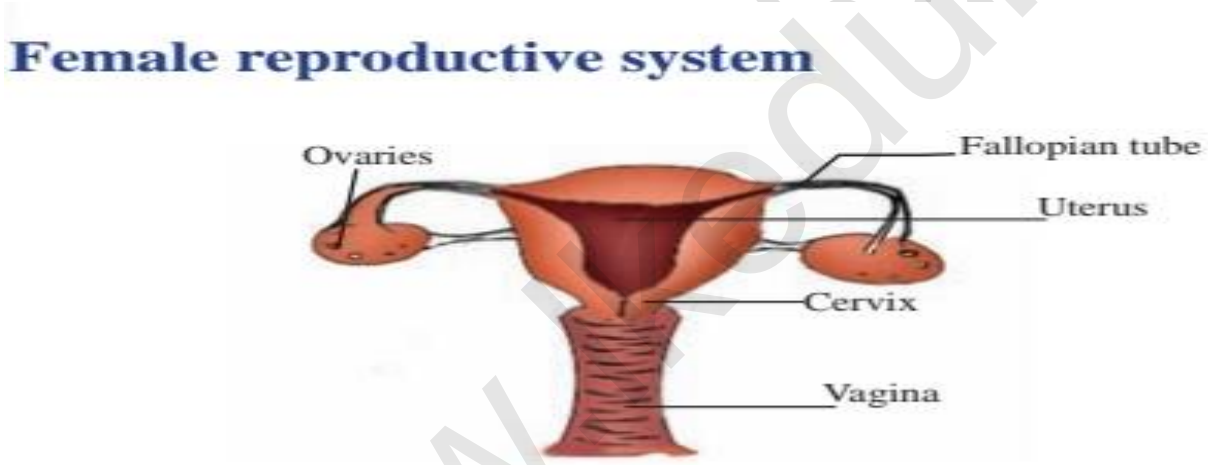
- ❖ Between the ages of 10-19 years during your transition from childhood to adulthood.

02. What is known as reproductive health?

- ➢ You are a united creation of your mother and father. They brought you to this world. In the future you will become a father or a mother. Producing children helps in the preservation of mankind. All living beings produce the young in order to preserve their kind. The human reproductive system is designed to produce children.

- ➢ Reproductive health is defined as physical, mental and social well-being in matters related to reproduction at all stages of life.

03. Draw the female reproductive system and What is menstruation?



- ➢ The embryo formed by the fusion of the father's sperm and the mother's ovum (egg) develops into a foetus inside the uterus (womb). Thereafter until birth takes place after nine months, it is nourished and protected in the uterus. As the uterus is a muscular organ, when the embryo grows the uterus also expands.

- ➢ Sperm ejected by the penis inside the vagina during sexual intercourse, travels through the vagina into the uterus. Thereafter, the sperm fuses with the ovum in the oviduct. If a child is not conceived in this process some parts of the inner lining of the uterus collapses and passes out through the vagina together with blood. This process that happens every 28 days is known as menstruation.

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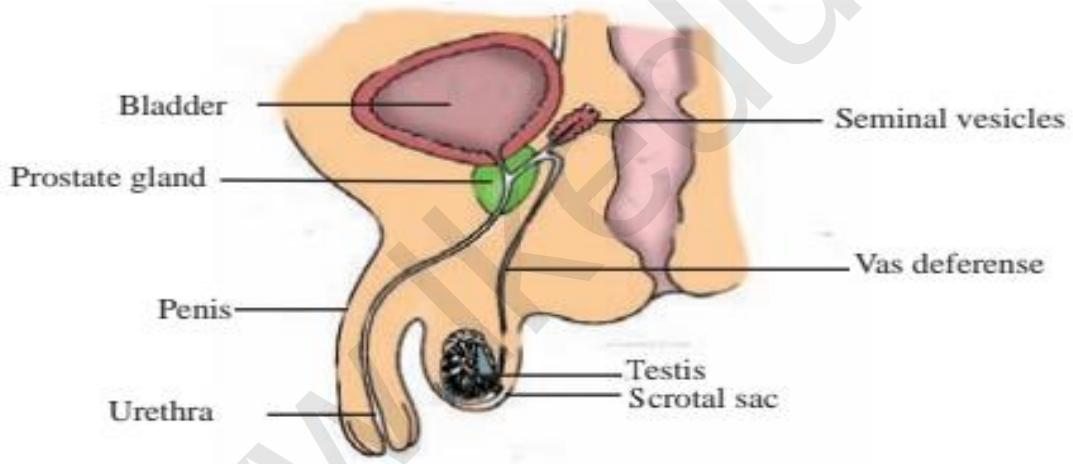
04. Explain the different functions of each organ of the female reproductive system.

1. Ovary -Production of female reproductive cells (ova- eggs)
2. Fallopian tubes - Transportation of the ovum produced in the ovary to the uterus
3. Uterus - Nourishing and protecting the embryo until birth
4. Vagina - Provides a passage for the sperm to pass from the penis to the cervix, facilitation of menstruation and child birth

05. Draw the male reproductive system.

- The male reproductive system consists of a few organs externally visible. The male sperms required to produce an embryo are produced inside the testes. In order to maintain the low temperature for the formation of sperms, the scrotal sac is formed outside the body.

- A liquid secreted by the seminal vesicle mixes with sperm. The penis ejects semen into the vagina during sexual intercourse



06. Explain the different functions of each organ of the male reproductive system.

1. Testes - Produces sperms
2. Scrotal sac - Holding the testes outside the body keeping the temperature low
3. Penis - Ejects semen into the female reproductive system.
4. Prostate glands - Nourishes the sperms and produces the secretion necessary for the sperms to swim

07. Mention 02 hormones secreted by female?

- Oestrogen
- Progesterone

08. Mention a hormone secreted by male?

- Testosterone

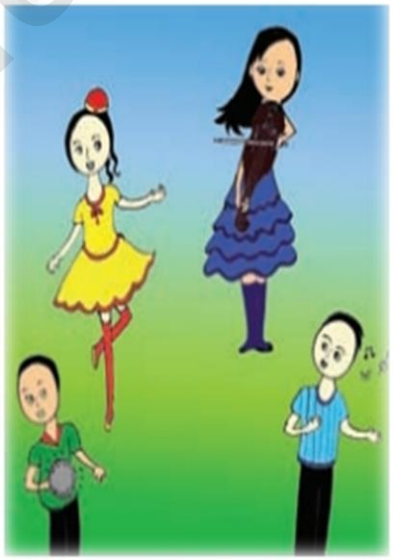
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09. Write 04 secondary sexual physical features that appear in female children at adolescence?



- Increase in weight and height
- Growth of breasts
- Nice skin complexion
- Hips getting broader
- Growth of thighs
- Growth of pubic and axillary hair
- Occurrence of pimples
- Production of vaginal fluid
- Beginning of menstrual cycle

10. Write 04 secondary sexual physical features that appear in male children at adolescence?



- Increase in weight and height
- Prostate glands, testes and penis getting larger
- Increase in shoulder breadth
- Growth of thighs and biceps
- Developing chest, pubic and axillary hair
- Occurrence of pimples
- Enlargement of larynx
- Change of voice
- Growth of moustache
- Ejaculation

11. Write 04 psychological features that appear at adolescence?



- Beginning to think logically
- Showing bravery
- Tendency to think scientifically.
- Desire to experiment on new things

12. Write 04 social features that appear at adolescence?

- Interest in leadership
- Desire to attain adulthood
- Interest in group activities
- Desire to associate with the opposite sex.

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13. How should you physically get ready to face the adolescence?

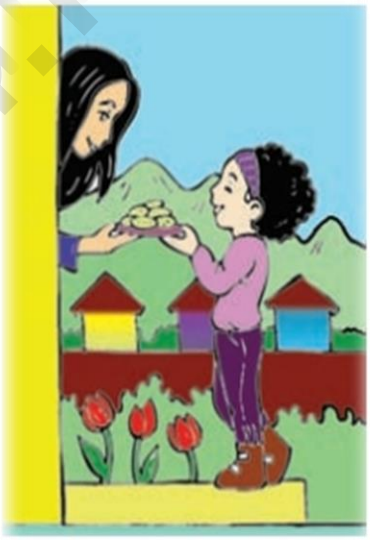
- ❖ Have nutritious food
- ❖ Engage In exercises and sports
- ❖ Maintenance of personal hygiene
- ❖ Refrain from wrongful sexual conduct and avoid unwanted pregnancies.

14. How should you mentally get ready to face adolescence?

- ❖ Try out good and new things
- ❖ Identify and develop one's skill
- ❖ Personality development through sports
- ❖ Engage in creative activities

15. How should you socially get ready to face adolescence?

- ❖ Share both sorrow and joy
- ❖ Shoulder responsibilities on your own
- ❖ Engage in sports, aesthetic activities and good hobbies
- ❖ Be a member of different clubs and societies in your school



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16. Explain the myth about the reproductive system.

Menstruation - A girl's first menstruation is known as attaining menarche. All girls do not attain menarche at the same age. Different factors such as nutritional level, genetic factors and environmental factors can have a bearing on this. Menstruation can be irregular in the first two or three years but usually it takes place every twenty-eight days in a cycle.

- It is a myth that bathing during the menstrual period will make the blood travel upwards and make the individual ill. Hygiene is compulsory during this period.'

- Although the menstruation period is considered unclean (kili) it is ones own blood that passes out of the body. The difference with the blood that seeps from a wound and menstruation is that it has mucus and some tissues of the uterus lining passing with it.

- There is a myth that girls should not consume fish and meat ('pilee food') during the menstrual period. The requirement of protein is high as this is a period of growth. During this period food containing protein such as fish, meat, eggs and milk is important.

- There can be minor aches and pains in the stomach and in the back. If there is no discomfort you do not have to keep away from sports activities. It is good to follow your daily routine.

Ejaculation of semen - The production of semen in the testes starts during puberty. The passing out of semen during one's sleep at night is known as nocturnal ejaculation which is a natural occurrence. It is am myth that the passing out of semen makes the body weak.

17. Write 04 factors that influence the reproductive health?

- Healthy habits
- Peer pressure
- Harmful sexual acts
- Hormones

18. Write 04 sexual transmitted diseases?

- AIDS
- Syphilis
- Genital herpes
- Genital warts

19. What is the meaning of hormone?

- Hormones are chemicals produced by various glands in the body necessary for it functions.

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15 Let us prevent non-communicable diseases

01. Write 02 germs that transmitted the communicable diseases?

- Bacteria or virus



02. What is the meaning of communicable disease?

Communicable diseases

These diseases can spread from one person to another. They are caused by disease causing microbes. They can spread directly or through a vector.

eg: dengue, malaria, filaria, tuberculosis, leptospirosis, typhoid, diarrhea, sexually transmitted diseases.

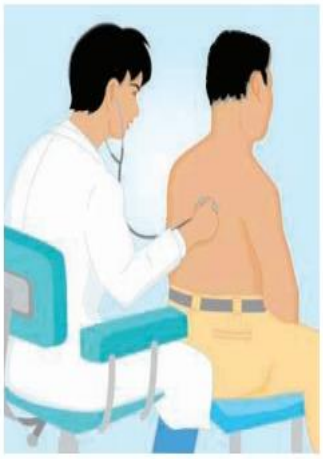
03. Write the types of non-communicable disease?

Non-communicable diseases

These are caused by physical factors and do not spread from one person to another.

eg: diabetes, cancer, hypertension and mental illness.





04. What is the meaning of Acute? And give 04 examples.

- Acute illness is that are caused by accidents and are not permanent. We can get completely cured but according to the severity we may have residual complication later on.
- Ex. Poisoning, snake bite, animal bite, electrocution.

05. What is the meaning of Chronic? And give 04 examples.

- Chronic diseases are long lasting illnesses involving changes that take place in the physical functioning of the body. We need long term treatment for these.

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06. Write the 02 types of factors that cause non-communicable disease?

- ❖ Changeable
- ❖ unchangeable

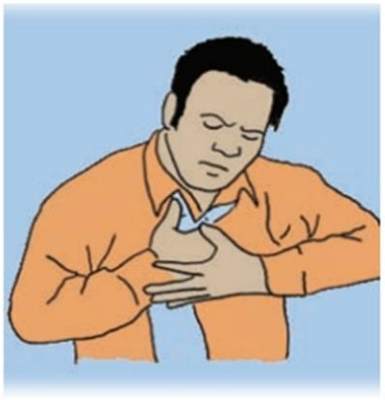
07. List out the factors that influence non-communicable disease?

Changeable factors	Unchangeable factors
• Unhealthy food patterns • Unhealthy food types (instant food, fatty food, excess salt) • Lack of exercise • Smoking • Use of alcohol and drugs • Mental stress	• Age • Sex • Genetic reasons (Hereditary)

08. Write 04 precautions that can be taken to avoid non-communicable diseases?

- ❖ Take a healthy diet
- ❖ Engage in exercise daily
- ❖ Get sufficient rest and sleep
- ❖ Manage stress





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I think it's an easy way to study your lessons.

Thank you...