

Class - 4 : Nature World (EVS)

KEY

1. Plants : Food Producers

- A. 1. Chlorophyll 2. stomata 3. taproot 4. all of these
- B. 1. Chlorophyll 2. Photosynthesis
3. Carbon dioxide 4. Fibrous roots 5. Stomata
- C. 1. Plants produce all of the food that animals, and people eat.
2. Chlorophyll is a pigment found in the cells of leaves which is activated in the presence of light and is the substance that colours plants green. Chlorophyll contained in leaves and has the property of capturing light energy.
3. Do it yourself.
4. Tap roots and fibrous roots-
Tap roots are large and fleshy in appearance. They grow deep into the ground in search of food.
Fibrous roots lie close to the surface of the soil. They collect precipitation before it sinks deep into the ground.
5. Photosynthesis is the process by which plants make sugar from sunlight, water and carbon dioxide.

2. Animals World

- A. 1. Duck 2. Crow flocks 3. Cows and dogs 4. cattle egrets
- B. 1. Pride 2. Murder or flock 3. Parliament
4. Colony
- C. 1. Animals live in groups to catch their prey easily and protect themselves from predators.
2. Rabbit, deer and hare are shy by nature.
3. Cows, pigeons and dogs are friendly by nature.
4. A little fish, remora lives attached to a shark and eats small creatures that live on the shark's body.
5. Animal ears can be unbelievably large like the African elephants or very tiny like gerbil's ears. E.g: Long ears of hares help them to increase their range of hearing to avoid predators.

3. Our Surroundings

- A. 1. Sun 2. oxygen 3. touch-me-not 4. gills
- B. 1. Stomata 2. Sunflower 3. Gills 4. Skin
5. Photosynthesis
- C. 1. We can see beautiful flowers, trees, animals, our friends and other people around us. These are all living things.
We can also see the air, water, soil, buildings and vehicles, these things do not have life in them. They are non- living things.
2. Animals and humans move to find food, shelter or to avoid danger.
3. Living things need food to grow and stay alive.
4. Green plants make their own food with air, water and sunlight.
5. Plants have tiny pores on their leaves called stomata, which help in breathing.

4. The Human Body

- A. 1. cells 2. Brain 3. cardiac 4. Mouth and teeth
- B. 1. Ribcage- protects heart and lungs

- 2. Skull- protects the brain
- 3. Skeletal muscles- support the skeleton
- 4. Saliva- helps to soften the food
- C.
 - 1. The human body is made of millions of tiny things called cells.
 - 2. Our brain helps us that what we should do and what we should not.
 - 3. Skeletal system is made up of bones, cartilage, ligaments and tendons.
 - 4. Trachea, bronchi, bronchioles, alveoli are the organs of the respiratory system.
 - 5. The blood vessels consist of arteries, arterioles, capillaries, venules and veins.

5. Nutrients in Food

- A.
 - 1. Carbohydrates
 - 2. Iron
 - 3. grow and repair
 - 4. balanced diet
 - 5. pizza and burger
- B.
 - 1. Proteins
 - 2. Water
 - 3. Carbohydrates
 - 4. Fat
- C.
 - 1. Food helps us to grow and to fight diseases.
 - 2. We eat a large variety of food items. Five different components in our food are called nutrients.
 - 3. The fibrous material of the fruits, vegetables and other food which cannot be digested by the body is called roughage.
 - 4. A diet containing all the essential nutrients in required quantities is known as a balanced diet.
 - 5. We can preserve food for a long time by many techniques, such as, boiling, canning, salting, refrigerating, and freezing.

7. Sources of Water

- A.
 - 1. Rain
 - 2. crops
 - 3. Boiling
- B.
 - 1. Satluj
 - 2. Krishna
 - 3. Ganga
- C.
 - 1. We need water to survive and our daily activities.
 - 2. Rivers, lakes, streams, reservoirs, oceans and rain are the main sources of water.
 - 3. Many dams harness the energy of falling water to generate electric power. This type of electricity is called hydro-electricity. Dams also hold water for drinking and crop irrigation and flood control.
 - 4. Rainwater is collected in these tanks or ponds. This rainwater is also collected on roofs of building and allowed to flow into a deep hole dug in the ground. This method is called rainwater harvesting.
 - 5.
 - a. It can be used for irrigation.
 - b. It can be used for public water supply.
 - c. It is also used for hydropower plants.
 - d. For flood control.
 - e. For recreational purpose.

8. Our Clothing

- A.
 - 1. cotton clothes
 - 2. silkworm
 - 3. sheep's wool
 - 4. handloom
- B.
 - 1. We get it from sheep- wool
 - 2. It comes from silkworms- cocoon
 - 3. It is made from synthetic fibre- nylon cloth
 - 4. It spins on looms- cotton thread
- C.
 - 1. We wear clothes to protect our body against heat, cold, rain and insect bites.
 - 2. In winter season, we wear thick, dark- coloured clothes made of wool, fur or leather.
 - 3. Cotton, silk, wool and synthetic fibre are used to make cloth.

4. Do it yourself.
5. The wooden looms that are handled by hand are called handlooms. The looms that have motors to run are called power looms.

9. Our Shelters

- A. 1. Asom 2. igloos 3. cloth & plastic
4. interior designer
- B. 1. True 2. True 3. False 4. True
- C. 1. We need to live in a house because it protects us from rain, storm, heat, cold and enemies.
2. Houses in cities are mostly pucca houses, which are strong and permanent houses. A pucca house has a strong base so that it can bear minor earthquakes. The base holds the weight of the entire construction.
3. Houses in Asom are built on stilts to protect people living in them from snakes, damp soil and floods which occur at a possibility of one per year. In areas which receive heavy rainfall it tends to flood. So houses are built on stilts far away from the flood waters.
4. Bungalows, storey apartments and multi- storeyed houses are found in cities.
5. Duplex, Skyscraper give another one.

10. A Clean House

- A. 1. D 2. wall 3. both of them 4. meal
- B. 1. False 2. False 3. True 4. True
- C. 1. An ideal house should have separate bedrooms, neat and clean bathrooms, a drawing room, a neat and clean kitchen with covered drains, windows and ventilators and a courtyard.
2. Windows allow air and sunlight to enter the house.
3. Doors and windows have wire-netting. It keeps flies and mosquitoes away and dust doesn't get inside easily.
4. Do it yourself.
5. Sunlight is necessary for us because sunlight provides vitamin D, which keeps our bones healthy and strong.

11. The Environment

- A. 1. Carbon dioxide 2. non-living things
3. plant more trees 4. Germs
5. Tree 6. Soil pollution
- B. 1. Plants and animals 2. air, water and soil
3. Three-fourths 4. soil pollution
5. non-biodegradable
- C. 1. True 2. True 3. False 4. True 5. True
- D. 1. Air pollution occurs when gases, dust particles, fumes or odour are introduced into the atmosphere in a way that makes it harmful to humans, animals and plants.
2. Any change or modification in the physical, chemical and biological properties of water that will have a detrimental consequence on living things, is water pollution.
3. We can help in saving our environment by following the three R's. These are Reuse, Reduce and Recycle.
4. We will have to save our forests and trees. Trees are our helpers and friends. Trees are useful to us in many ways.
We should not cut trees.
We should not waste paper.

12. Means of Communication

- A. 1. 1.5 lakh 2. Modem 3. Print media
4. 148 million
- B. 1. On the radio we can listen music, news, debates, plays and commentaries of various games like cricket and hockey. It is very useful for people who are illiterate. India has many radio stations, like All India Radio(AIR), Radio Mirchi, Radio City and Red FM.
On the television(TV), we can listen and watch news, movie, songs and entertainment programmes. Television is the most popular means of mass media today.
2. Mobile is used for talking to the people at distances. We can carry it along with us anywhere.
A pager is a one-way communication service. The message sent is displayed on the screen.
- C. 1. True 2. True 3. False 4. True
- D. 1. The means of communication help us to send our message and ideas from one place to another.
2. The Indian postal services are excellent compared to other countries. We can buy postcards, inland letters, envelopes and postage stamps from a post- office.
3. A very convenient method to send fast messages, data, photo, etc., is internet.
4. Internet.
5. Television, radio, newspapers, magazines and internet.

13. Means of Transport

- A. 1. Metalled roads 2. Asia 3. 100 km
4. Helicopter
- B. 1. Thane to Mumbai
2. Rajdhani Express, Shatabdi Express.
3. Oman, Air jet.
4. elevated tracks
- C. 1. Roadways, railways, airways and waterways.
2. Do it yourself.
3. Road are two types – metalled or unmetalled
4. * High flexibility in terms of transport jobs and changed plans.
* Fewer idles and waiting periods.
* Relatively low transport times for short and medium distances.
5. First railways was made in India in 1853.

14. Importance of School In our Life

- A. 1. nation 2. knowledge 3. four storeys 4. Saturday
- B. 1. The school is a place where we get total education.
2. A school library is the store house of knowledge. Habit of reading can be cultivated in a library.
3. Science laboratory is the place where various kinds of practical works are carried out by the students.
4. a. Modern Higher Secondary School is far away from dust, noise and smoke of the city.
b. It has a grand building.
c. It has a playground, a canteen and a hall.
5. School is important because it is tool to help prepare us for life. It prepares us to be the future caretakers of our nation. It teaches us the basic skills of education as well as about people, place and nature.

15. Safety First

- A. 1. careless 2. zebra crossing 3. red sign

- B. 1. False 2. True 3. False 4. True
- C. 1. We can avoid accidents, if we are careful and follow the safety rules.
 2. Cross the road when all the traffic is cleared or stopped.
 3. Children should cross only when the crossing supervisor has signalled it as safe.
 A pedestrian should cross only on the zebra crossing when cars have stopped for this.
 4. Red means stop, yellow means wait and green means go.

16. Important National Festivals

- A. 1. 15th August
 2. India became free from the British rule
 3. A grand parade is held at Rajpath
 4. 2nd October
- B. 1. 26th January 1950 is one of the most important days in Indian history as it was on this day the constitution of India came into force and India became a truly sovereign state. In this day India became a totally republican unit.
 2. India celebrates Independence Day on August 15 each year. India became an independent nation on August 15, 1947, so it is celebrated annually to remember this date.
 3. On the Independence day, the Prime Minister hoists the national flag on the Red fort and gives speech.
 4. We celebrate Gandhi Jayanti on 2nd October, to pay tribute and honour to Mahatma Gandhi who fought for the freedom of India.

17. Locating Maps

- A. 1. Scale 2. Blue 3. small scale map
 4. north 5. Directions
- B. (a) (v) (b) (i) (c) (iv) (d) (ii) (e) (iii)
- C. 1. A map has certain components which help us in understanding it.
 2. A small scale map like the map of India shows a larger area.
 3. Directions help us to know the location of a place.
 4. i. brown ii. blue iii. green iv. Crayola
 5. We need maps to know the proper location of a place.
 6. Distances on a map are shown in cms. The scale is 1 cm = 1 km.
 7. A scale of a map helps us to calculate the distance between two points on the ground.

18. Our Earth

- A. 1. Sun 2. round 3. rotation 4. imaginary 5. 365 days
- B. 1. True 2. True 3. False 4. False 5. True
- C. 1. There are eight planets in the solar system: Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, and Neptune.
 2. The shape of earth is sphere.
 3. The two main movements of the Earth are the rotation of the Earth around its axis, and the revolution of the Earth, or orbital motion, around the Sun.
 4. The Earth experiences days and nights as a result of the earth's spinning on its axis. As the earth spins, the part that is facing the sun experiences day, while it is night for the part facing away from the sun.
 5. There are mainly five seasons, namely summer, winter, monsoon, autumn and spring.

19. Conservation of Natural Resources

- A. 1. All of them 2. Coal 3. hydrocarbon
 4. electricity 5. recycle
- B. 1. True 2. True 3. True 4. True 5. False
- C. 1. Natural resources are materials provided by the Earth that humans can use to make more complex (human-made) products.
 2. Two types of natural resources are available on earth.

3. Renewable energy relies upon resources that are quickly replenished by natural processes, while non-renewable energy uses resources that are finite in supply. Common forms of renewable energy include solar, wind and geothermal energy. Fossil fuels and nuclear power are forms of non-renewable energy.
4. Solar Power, Wind Power, Water Power, Biomass energy, are the examples of renewable resources.
5. * Write on both sides of paper.
 - * Drink from glass or reusable hard, plastic cups instead of throwaway paper or throwaway plastic ones.
 - * Use cloth towels and napkins instead of paper towels and napkins.
 - * Turn old clothes into new clothes by trading with a friend.
6. Do it yourself.
7. Fossil fuel is a general term for buried combustible geologic deposits of organic materials, formed from decayed plants and animals that have been converted to crude oil, coal, natural gas, or heavy oils by exposure to heat and pressure in the earth's crust over hundreds of millions of years.

20. Villages and Their Local Governments

- A.
 1. agriculture
 2. three tier system
 3. sarpanch
 4. municipal councillors
- B.
 1. Municipal Corporation
 2. Mayor
 3. Mayor
 4. Municipal Corporation of Delhi
- C.
 1. Village Panchayat, the Panchayat union council, the district panchayat, village panchayat.
 2. A city, town, or other district possessing corporate existence and usually its own local government.
 3. * They solve the disputes of village people as individual or groups.
 - * Gram panchayat implements the official programme given by the authorities.
 - * Conduct regular meetings and keep records for various departments.
 4. * To run a primary or lower basic school through the medium of a productive craft, thus combining cultural and technical education.
 - * To maintain a library and a reading room.
 - * To run a night school for adults.
 5. Mayor is the head of the Municipal Corporations in India.