

Class - 5 : Nature World (EVS)

KEY

1. Reproduction in Plants

- A. 1. None of them 2. Monocot 3. Banana 4. Rose 5. Asom
- B. 1. Germination is the process of seeds developing into new plants.
2. Seed dispersal is the movement or transport of seeds away from the parent plant.
3. A new plant grows from a vegetative part, usually a stem, root or leaf. This is called vegetative reproduction or asexual reproduction.
4. A seed needs the right amount of water, air and warmth to germinate. The conditions needed for germination may not be suitable at all times. So seeds wait for some time before they germinate. This waiting period is called dormancy.
5. Reproduction is the process by which plants produce young ones like themselves.
- C. 1. Carrots, Apples 2. Garlic, Onion 3. Broom, Eurphorbia
4. Sugarcane, Bamboo 5. Ferns, Mosses 6. Potato, Turnip
- D. 1. Reproduction is the process by which living things make young ones like themselves. There are two types of reproduction in plants:
a) Reproduction through Seeds – The major steps in such type of reproduction are:
* Pollination
* Fertilization
* Seed formation
* Dispersal of seeds
* Germination
b) Reproduction through different parts of plants – New plant begins from one of the following parts:
* Leaf
* Root
* Stem
2. The conditions necessary for seed germination include:
* Optimum temperature
* Oxygen
* Adequate supply of water
* Sunlight
* Moisture content
* Soil
3. Animals disperse seeds in several ways. Some seeds are found inside fleshy fruits that are eaten by an animal. The fruit is digested by the animal, but the seeds pass through the digestive tract, and are dropped in other locations. Some animals bury seeds, like squirrels, to save for later, but may not return to get the seed. It can grow into a new plant. Birds also help to disperse seeds to other areas through their droppings.
4. Dispersal by wind - The seeds which are dispersed by wind are smaller that have structures like wings or hair or feathers. These seeds are very light. The seeds of orchid are almost as fine as dust.
Dispersal by water – Many aquatic plants and plants that live near water have seeds that can float are carried by water. Plants living along streams and rivers have seeds that float down stream, and therefore germinate at new sites.

5. Many plants are not produced by seeds. Instead, a new plant grows from a vegetative part, usually a stem, root or leaf. This is called vegetative reproduction or asexual reproduction.

2. Plant and Animal Products

- A. 1. makes the food 2. all of these 3. dead things 4. Pitcher
- B. 1. Green plants 2. Scavengers 3. Pitcher plant 4. Leaves
- C. 1. Green plants are the only living things that prepare their own food. Leaf is the part of a plant that serves primarily as the plant's food-making organ. The food-making process in the leaf is called photosynthesis. A leaf needs water, carbon dioxide, sunlight and chlorophyll to complete photosynthesis process. Water + Sunlight + air = Starch (Glucose)
2. Plants like yeast, mushrooms, mould and rust do not contain green chlorophyll. These plants take their food from their environment in the following ways:
* They get their food from the dead and decaying plants and animals. They are called saprophytes.
* Some plants depend on other living things. They are called parasites.
3. Carnivorous plants usually live in nitrogen poor soils. Carnivorous plants have specialized features that allow them to access nutrients by trapping and digesting insects. Pitcher plant and venus fly trap are carnivorous plants.
4. Animals are grouped by either the mode of ingestion, the mode of digestion or the type of food that they consume.
5. A food chain shows how each living things get their food. Some animals eat plants and some animals eat other animals. For example, a simple food chain links the trees and shrubs, the giraffes(that eat trees and shrubs) and the lions(that eat the giraffes). Each link in this chain is food for the next link.

3. Animal Senses

- A. 1. Eagle 2. Snakes 3. Dog 4. Bats
- B. 1. Monkey 2. Leopards 3. Eagle 4. Bear 5. Crocodile
- C. 1. As a human uses five sense organs—touch, taste, see, smell and hear. Animals also use their senses.
2. Lizard is a reptile and it is cold blooded, so cannot maintain its body temperature. Their body temperature changes with environment temperature. Change in temperature affects their behaviour. So they become inactive during winter, and undergo winter sleep.
3. Some people kill animals because they want to use the animals for food or clothing, while other people kill animals because they find it challenging and fun. Humans are apex predators, or predators at the top of the food chain that have few predators of their own.
4. A dog's sense of smell is a million times stronger than a person's sense of smell. A dog can use its super nose to track a scent that is nearly four days old.
5. Do it yourself.

4. The Adivasis

- A. 1. mountain and hills areas 2. tribes 3. jawar 4. all of them
- B. 1. India has the world's largest native population of 85 million tribal people, called Adivasis.
2. Adivasis live in hills and forest.
3. Roti made of jawar and vegetables in their daily delicious food. Rice- dal-sabji is occasional meal.
4. The main occupation of Adivasis is cultivation, hunting and fishing.
5. Adivasis are born artisans and craftsmen and produce exquisitely beautiful handicrafts. Cane and bamboo industry of Adivasis is of very high standard.

5. Food and Health

- A. 1. A 2. blood clotting
3. Roughage 4. bones and teeth
- B. 1. carbohydrate, protein, fat, vitamin, mineral and fibre
2. Carbohydrates 3. Minerals
4. Proteins 5. Fats
- C. 1. Vitamin A 2. Minerals 3. Proteins

- D.
1. The food we eat is the sole source of our energy and nutrition.
 2. The six essential nutrients include carbohydrates, proteins, fats, vitamins, minerals and water.
 3. Carbohydrates are the main source of energy for our body. Carbohydrates can be used by the body immediately or stored and converted for later use. Carbohydrates are basically sugar and starch. Wheat, potatoes, grains, candy, bread are all sources of carbohydrates.
Carbohydrates break down into glucose which is used as fuel for our muscles and brain.
 4. Vitamins are needed in a small amount to help the normal functioning of the body. They are important because they serve a wide variety of functions. There are many types of vitamins— Vitamin A, Vitamin D, Vitamin K, Vitamin C, Vitamin B.
 5. Water is the most important component of six basic nutrients. Water makes up 50 to 75% of the human body. We need at least 8 glasses of water a day to keep the body healthy.

6. Houses We Live In

- A. 1. sloping 2. wood 3. Nomads 4. flood-prone
- B. 1. True 2. False 3. False 4. True
- C.
1. People in different areas or regions live in different kinds of houses. The location and climate of a place, the construction materials available locally and the economic condition of the people determine the type of house they live in. Houses are made up of different materials. They are of various kinds and types. Some houses are big while others are small.
 2. Igloo and sloped roof houses are built in cold regions.
 3. Nomads live in temporary houses known as tents.
 4. Bungalows, multi-storied, and skyscrapers houses are found in cities.
 5. In flood-prone areas, water might get into the houses if the houses are built on ground level. So in order to avoid flooding of houses, houses are built on stilts as stilts are above the ground level, they prevent the houses from being flooded.

7. Different Clothes in Different Regions

- A. 1. all of them 2. Salwar 3. Gujarati 4. Lungi
- B. 1. Phirans 2. Kurta 3. Mekhela Chadar 4. Bengali style
- C.
1. Weather of the place, change in seasons and the changing fashions affect the type of clothes people wear.
 2. In cities men wear trousers and shirts and women wear jeans, top, kurties, salwar-kameez etc.
 3. The pheran is worn by Kashmiri women.
 4. The men of Assam dress themselves in dhoti(a loin cloth) and women in mekhla-chadar, made from endi.
 5. Do it yourself.

8. Water and its Sources

- A. 1. Both barav and vaav 2.Pond 3. Water wheel 4. Clay
- B. 1. Dighis 2. Hand pump 3. Pot 4. Tube well
- C. 1. b 2. c 3. d 4. a
- D.
1. A dighi was a square or circular reservoir of about 0.38m by 0.38m with steps to enter. Each dighi had its own sliding gates. People generally hired a kahar or a mashki to draw water from the dighis.
 2. Water from the wells is drawn out with a rope and bucket, using a pulley. A water wheel is also used to pull water from wells.
 3. Water Tank irrigation is the most feasible and widely practiced method of irrigation all over the South India. Most of the tanks are small in size and built by individuals or groups of farmers by raising bonds across seasonal streams.
Canal Irrigation- A canal is an artificial waterway constructed to allow the passage of boats or ships inland to convey water for irrigation. This is the most convenient method of irrigation. It is easy to dig canals in these areas since the land is level and soil is soft.
 4. A baoli is a reservoir in which water can be stored. It is also a source of ground water. Baolis, or step-wells are known by various names in different cultures. Gandhak-ki-baoli, rajon-ki-baoli, etc.

9. Safety Rules

- A. 1. right 2. height 3. closed
- B. 1. zebra crossing 2. electricity 3. Hot
- C. 1. Safety is the state of being safe, the condition of being protected from any harm. Safety rules are activities and precautions taken to improve safety. We should follow the safety rules on road, boarding a bus, riding a bicycle, at home, in the bathroom, in the kitchen, fire safety rules and electricity.
2. Walk on the pavement and cross the road at the zebra crossing. Before crossing the road, look first at the right, then left and then at the right again.
3. * Knives and sharp objects must be used carefully.
* Electric appliance cords should be kept away from the sink and stove.
* Loose, flowing, clothing should never be worn during cooking.
* Cleaning supplies should be stored separately from food items and kept beyond children's reach.
4. Do yourself.

10. First Aid (Helping Hand)

- A. 1. antiseptic cream 2. two third 3. all of them 4. mild soap
- B. 1. T 2. F 3. T 4. F
- C. 1. * We should not let a crowd gather around a sick person.
* Make the injured person sit or lie down.
* Call an adult for help or call a doctor immediately.
2. First Aid is the immediate treatment given to the victim of an accident or sudden illness, before medical treatment. It is important to have a first aid kit available.
3. Stop Bleeding
* Apply direct pressure on the cut or wound with a clean cloth, tissue, or piece of gauze until bleeding stops.
* If the wound is on the arm or leg, raise limb above the heart, if possible, to help slow bleeding.
* Wash your hands again after giving first aid and before cleaning and dressing the wound.
4. * If someone is stung by an insect, such of bee, remove the stinger immediately by scraping it, away from the skin with your finger half or an iron key.
* Wash the area with soap and water, cover it to keep it clean.
* Apply ice to reduce pain and swelling.

11. Diseases and Their Prevention

- A. 1. Bacteria 2. Dr. Edward Jenner
- B. 1. Sneezes, cough Cleanliness, wear a surgical mask
2. Shivering, dry cough use a tissue to cover your mouth, wear a surgical mask
3. Body ache, nausea covering the mouth and nose while coughing and sneezing, maintain high level of hygiene
4. Headache, red rashes Vitamin A, vaccine
- C. 1. A disease is an illness that affects the health of a person. Disease is an improper functional condition of the body.
2. Certain diseases which can be passed from one person to another. These diseases are infectious and are called communicable diseases. They are caused by small living organisms that is spread from one person to another through a variety of ways that include: contact with blood and bodily fluids; breathing in an airborne virus; or by being bitten by an insect.
3. Our bodies are pretty amazing. Day after day, they work hard — digesting food, pumping blood and oxygen, sending signals from our brains and much more. But there is a group of tiny invaders that can make our bodies sick — they're called germs. Bacteria, viruses, fungi, protozoa.
4. Hygiene is an essential component of healthy living and preventing diseases.

12. Medical Science and Health

- A. 1. Medical and doctors' thermometer
2. French surgeon Ambroise Pare 3. Surgery

- B. 1. e 2. c 3. d 4. b 5. a
- C. 1. Thermometers use thermometric liquids to measure temperature in body cavities- orally, or at other auxiliary points, such as the under arm.
2. A stethoscope is a diagnostic instrument. It is used by medical professionals to listen to a patient's chest cavity, heart and various pulse points.
3. To cure the disease or repair the organs, surgeons have to cut open the body and operate on the organs. This is called a surgery. Surgery has enabled humans to live longer. Heart surgery, kidney transplant and plastic surgery are common today.
4. Chloroform is used as an inhaled anaesthetic during surgery. Inhaling chloroform vapours depresses the central nervous system of a patient and makes a patient unconscious.
5. Do it yourself.

13. Means of Communication

- A. 1. 1443 2. Telegraph 3. American Ray Tomlinson 4. All of them
- B. 1. (e) 2. (d) 3. (c) 4. (b) 5. (a)
- C. 1. In the past, people were able to send and receive messages only by pigeons or horse-riders.
2. The printing press made possible to communicate with many people at the same time. More books began to be printed in less time.
3. Teleprinter sends messages over telegraph or other data communication lines to a similar receiving printer, which automatically prints the message. Through teleprinter we can send messages three times faster than an ordinary telegraph.
4. Those who cannot read or write can listen or watch programmes on television. Now we can listen news and discussions and enjoy the different programmes of entertainment without leaving home. We can also learn about the habits and culture of the people of different parts of the world. Therefore, television is the most popular means of mass communication.
5. Books, newspapers, magazines, radio, television, cinema, internet, and advertisement are different means of mass communication.

14. Transportation

- A. 1. Feet 2. Central Government 3. 120 kmph 4. Sea ports
- B. 1. F 2. F 3. F 4. F 5. F
- C. 1. Transport is needed for travelling and carrying goods from one place to another.
2. There are three means of transport-
- (i) Land transport (ii) Water transport (iii) Air transport
3. Europe and North America have more extensive railway network than other countries in world, like Asia, Africa and Australia. France, Germany, Japan and China have also some of the fastest trains in the world. These are Bullet train of Japan, the Maglev of China and the TGV of France.
4. India has 12 major and 184 other (minor and intermediate) sea ports.
5. Rivers are a natural highway which does not require any cost of construction and maintenance. So, It is cheapest mode to transport.

15. Prides of India

- A. 1. National Flag 2. 2002 3. Sanskrit 4. Mango
- B. 1. Peacock 2. Banyan Tree 3. Mango 4. Lotus
- C. 1. Our national symbols such as national flag, national song, national anthem and national emblem represent our unity and identity. This unity in diversity is unique to India.
2. Hindus, Muslims, Christians, Sikhs, Jains, Buddhists, Zoroastrians are different religions followed in India.
3. The saffron colour represents the strength and courage of the people in India. The white colour is symbolic of the peace that the Indian people want. The green colour shows the growth of the land. In the centre of the white stripe there is a navy blue wheel which represents the chakra. The chakra (wheel) intends to show that there is life in movement and death in stagnation.

- C.
1. Natural disasters are extreme, sudden events caused by environmental factors that injure people and damage property. Earthquakes, windstorms, floods and diseases are examples of natural disasters.
 2. When there is a tsunami, we should turn off the stove and take cover. Avoid taking cover near windows, large mirrors hanging objects, heavy furniture, heavy appliances or fireplaces. If you are outside, move away from buildings, power lines and trees.
 3. A cyclone is a storm accompanied by high speed whistling and howling winds. It brings torrential rains. A cyclonic storm develops over tropical oceans like the Indian Ocean and Bay of Bengal and the Arabian Sea. Its strong winds blow at great speed.
 4. When the level of water rises above the river banks or dams, the water starts overflowing, which causes floods. Floods can make people drown and die.
They can destroy a lot of people's homes
They bring too much water which causes damage to farmland.
 5. The role of the Central Government is supportive at the times of disaster. It provides immediate relief, also a variety of medical aid.
* NGO's also played a significant role in disaster mitigation, relief and rehabilitation.
* The Indian Red Cross Society is a voluntary organization and provides relief in times of disasters/emergencies and promotes health and care of the vulnerable people and communities.