

Class: 6

Basic Science

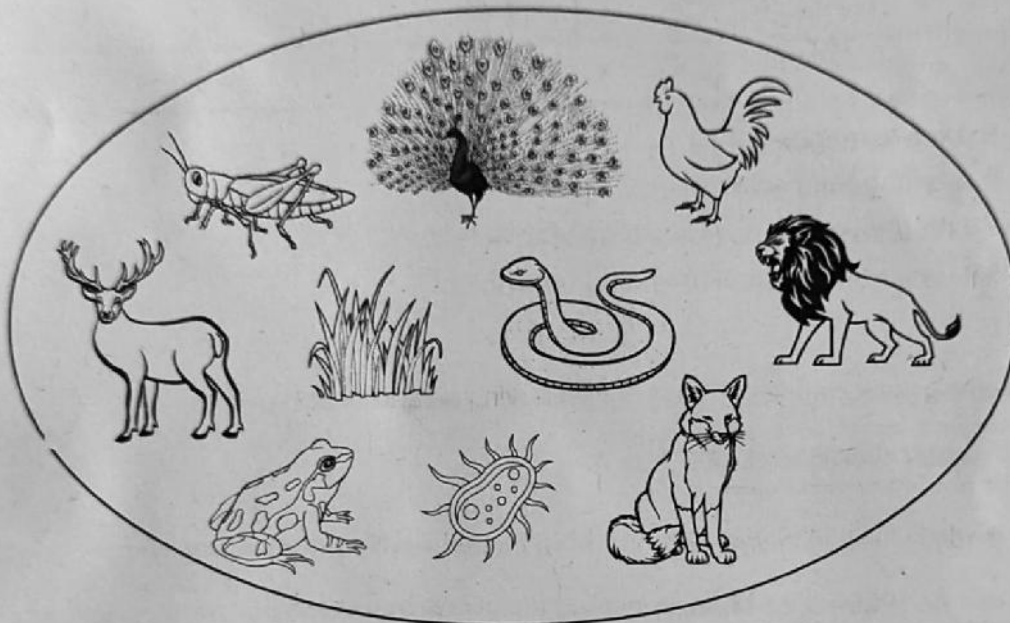
Time : 2 hrs

Instructions

- ◆ 15 minutes is given as cool - off time. This time is to be used for reading the question paper.
- ◆ Attempt any 8 from the 10 questions given below.

Activity 1

- A) Look at the picture of different animals that belong to an ecosystem. Write down any four food chain related with this picture.



- B) Observe the food chain given below.

grass → deer → tiger

A child opines that if tigers disappear from this ecosystem, deers will also become extinct. Do you agree to this statement? Justify your opinion.

- C) Observe the given statements about different levels of food chain.
- 1) The second level of food chain will always be carnivores.
 - 2) The third level of food chain will be herbivores.
 - 3) Producers will always be green plants.
 - 4) The last level of food chain will be decomposers.

Which among the statements is correct?

- i) Statements 2 & 4 are correct.
- ii) Statements 3 & 4 are correct.
- iii) Statement 2 is correct.
- iv) Statement 1 is correct.

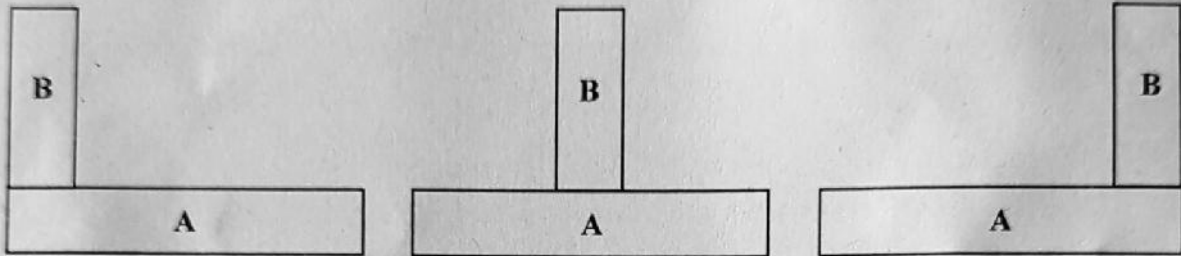
Activity 2

- A) In addition to glass, which substance from the following is used to make the box containing the magnetic needle in a compass? Choose the correct one.

Iron, Aluminium, Nickel

Explain the reason behind it.

- B) Which peculiarity of the magnet is utilised in a compass?
C) Three situations in which the objects A & B get equal attraction is given below. Analyse the picture and find out the right statement.



- i) A, B are two magnets.
ii) A, B are magnetic objects.
iii) A is a magnet and B is a magnetic object.
iv) B is a magnet and A is a magnetic object.

Activity 3

- A) Look at the things that were listed out while observing an artificial pond.

water, soil, insects, fish, frog

Is this pond which includes these items an ecosystem? Justify your answer.

- B) Classify the following as the examples of ecosystem and non ecosystem.

nest, home, river, pond, burrow, forest

- C) Which biotic factor is most likely to help in maintaining the abiotic factors in an ecosystem?

Activity 4

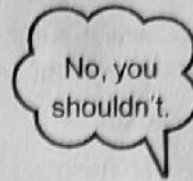
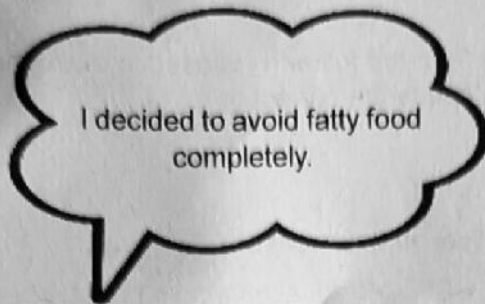
Observe the given statements about different types of fruits.

- ◆ Jack fruit and custard apple are multiple fruits.
- ◆ Lady's finger and grapes are simple fruits.
- ◆ Tomato and custard apple are aggregate fruits.
- ◆ Jack fruit and black berry are multiple fruits.

- A) Find out the right one from the above statements.
B) Write down peculiarities of simple fruits, aggregate fruits and multiple fruits.
C) Find out the odd one out.

1. Apple 2. Cashew apple 3. Safarjal 4. Jamba

Activity 5



- A) Why did the teacher disagree to the student's opinion?
- B) What are the problems of increasing the fat level in food?
- C) Some habits to control the fat level in body are given below. Analyse these statements and identify the correct one.

- 1. Exercise daily.
- 2. Avoid fried food items.
- 3. Take protein rich diet.
- 4. Take only carbohydrate rich food regularly.

Activity 6

Observe the given instances of motion.

Instance 1
The movement of pendulum in a clock

Instance 2
Movement of tuning fork

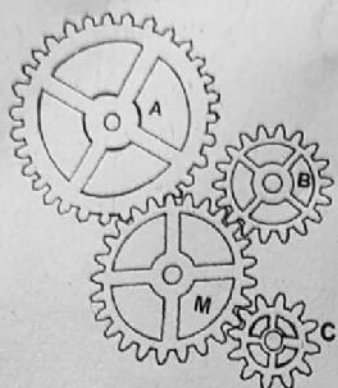
- A) Write down the name of motions in these two instances. Explain the peculiarity of any one motion.
- B) Write two examples for each of these motions.
- C) Which among the statements is wrong about rotation?
 - 1. Rotation is the movement of an object on its own axis.
 - 2. Rotation is always through a circular path.
 - 3. The rotating object will never change its position as a result of rotation.
 - 4. The axis of rotation will always be inside the object which is rotating.

Activity 7

- A) Most of the students were detected night blindness in a medical camp conducted in a school. Doctor said that this problem can be cured through food. List out the food items suggested by the doctor.
- B) Which vitamin is lost when the food is cooked keeping the vessel open?
- C) Ramu used plenty of milk and sea foods in his diet. But the doctor found that he has calcium deficiency. Find out the reason behind this problem from the following.
 - 1. Insufficient intake of water.
 - 2. Insufficient intake of Vitamin C rich food.
 - 3. Insufficient exposure to sunlight.
 - 4. Insufficient intake of protein rich food.

Activity 8

Observe the diagram of gears of a clock.



- A) Find and write to which of the gears A, B, C the minute hand, the second hand and the hour hand will be attached.
- B) Explain the reason behind your findings.
- C) Which gear rotates opposite to the gear 'M'?
- i. Only the gear A
 - ii. Only the gear B
 - iii. Gears B and C
 - iv. Gears A, B & C

Activity 9

- A) Babu reached his house on bicycle passing an uphill, a downhill and a winding road. Complete the table by writing the occasions and purpose where he might have used force on the bicycle.

| Occasion when he used force | Purpose of applying force |
|----------------------------------|---------------------------|
| 1. Beginning to ride the bicycle | Moving the static cycle. |
| 2. | |
| 3. | |
| 4. | |
| 5. | |

- B) While considering the movement of the cycle tyre, which among the following motion is not applicable?

| | |
|------------------|---------------------|
| i. Rotation | ii. Circular motion |
| iii. Oscillation | iv. Linear motion |

Activity 10

Observe the change in the energy given below.

Electric energy \rightarrow Mechanical energy + heat + sound

- A) Find and write down two situations where such energy changes occur.
- B) Identify and list the form of energy used and the form of energy wasted in both situations?
- C) Which among the following has minimum energy loss?
- i) Filament bulb
 - ii) LED bulb
 - iii) CFL bulb
 - iv) Halogen bulb