

## Materials around us

### A. Choose the correct answer:

1. Which of the following is an example of a natural material?

- a) Plastic
- b) Glass
- c) Cotton
- d) Nylon

2. What type of motion does the Earth exhibit around the Sun?

- a) Wood
- b) Copper
- c) Rubber
- d) Glass

3. Which of the following is an example of periodic motion?

- a) Hardness
- b) Ductility
- c) Brittleness
- d) Opacity

### B. Fill in the Blanks:

1. Materials that can be broken easily and do not bend are called \_\_\_\_\_.
2. Substances that allow electricity to pass through them are called \_\_\_\_\_.
3. \_\_\_\_\_ is a strong and flexible natural fiber used in making cloth.

### C. Case Study:

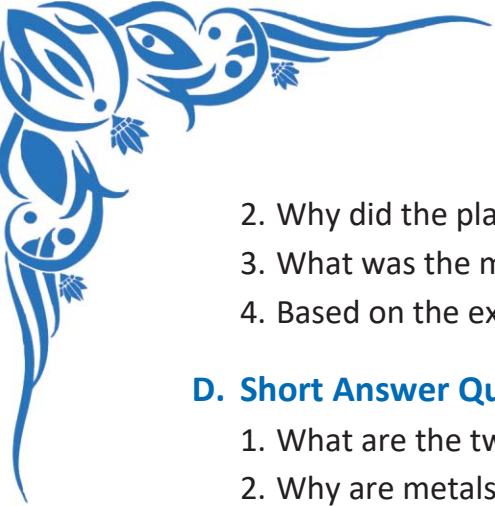
A science teacher, Mr. Sharma, conducted an experiment to test the properties of different materials. He gave his students three objects: a metal rod, a plastic ruler, and a glass beaker. The students tested these materials for their ability to conduct electricity, their strength, and their flexibility.

#### Findings:

- The metal rod conducted electricity and was strong but not flexible.
- The plastic ruler did not conduct electricity, was flexible, and moderately strong.
- The glass beaker was strong but brittle and did not conduct electricity.

#### Questions & Answers:

1. What property of metal was observed in the experiment?



2. Why did the plastic ruler not conduct electricity?
3. What was the main drawback of using the glass beaker?
4. Based on the experiment, why is metal preferred for making electrical wires?

**D. Short Answer Questions:**

1. What are the two main types of materials based on their origin?
2. Why are metals used to make utensils and cooking pots?
3. How is plastic different from glass in terms of properties?

**E. Long Answer Questions:**

1. Explain the different properties of materials such as strength, flexibility, and conductivity with examples.
2. Discuss the advantages and disadvantages of using synthetic materials over natural materials.
3. How do the properties of materials determine their usage in everyday life? Give examples.