

St. Andrews Scots Sr. Sec. School

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Session: 2024-2025 – Answer Key

Class: VI

Subject: Science

Chapter: Kinds of Material

CHECK POINT 1

1. The grouping of things on the basis of some criteria is called classification.
2. Nail, Hammer, Pressure Cooker
3. The basis to identify an object is its material and shape.

CHECK POINT 2

1. Lusture is the shining property of an object. For example, all metals.
2. The roughness and smoothness of a material of an object is called its texture. For example, sandpaper has rough surface, while glazed paper has smooth surface.
3. The property of a hard or a soft material is called hardness.

CHECK POINT 3

1. Transparent materials: They allow light to pass through them. Examples: Glass, water, etc.
2. Translucent materials: They allow light to pass partially through them. Examples: Butter paper, etc.
3. Opaque materials: They do not allow light to pass through them. Examples: Wood, rubber, etc.

Define the following :-

1. Classification :- The process of grouping things on the basis of some criteria is known as classification.
2. Soluble material :- Material which dissolve in water are called soluble material. Eg:- oxygen, sugar , salt etc.
3. Insoluble material :- Material which do not dissolve in water are called insoluble material.
Eg:- nitrogen, chalk powder, sand etc
4. Translucent material :- Materials which allow only partial (some) light to pass through them. Eg:- butter paper

PRACTICE TIME

A. Tick the correct answer

1. (a)
2. (d)
3. (c)
4. (c)
5. (c)

B. Match the column

1. (e)
2. (d)
3. (a)
4. (c)
5. (b)

C. Very Short Answer type questions

1. Objects which have shiny surfaces are called lustrous objects, e.g., gold, silver, copper, etc.
2. Wood and rubber are nonlustrous objects.
3. Materials which can be compressed are said to be soft, e.g., eraser, sponge, etc.
4. Materials which cannot be compressed are said to be hard, e.g., metal spoon, glass, etc.
5. The property of dissolving a substance in water is called solubility.

D. Short Answer type questions

1. In order to choose a material to make an object, the following objectives should be kept in mind:
 - The purpose for which the object is to be used.
 - The properties of the material.
2. The cooking utensils should have the property of heat conduction but wood does not have such property. Also, if wooden pot would be heated, it would catch fire. Hence, utensils are

not made of wood.

3. We cannot use rubber to make electric wires because rubber is a bad conductor of electricity.

4. Commonly, the following properties are used to group the objects:

- Appearance (lustrous or nonlustrous)
- Texture (rough or smooth)
- Solubility (soluble or insoluble in water)
- Ability to float or sink in water
- Transparency (transparent, translucent or opaque)

5. Transparency is the property of a material of an object which tells whether we can see through the object or not. On the basis of this property, objects are categorised as transparent, translucent and opaque objects.

E. Long Answer type questions

1. The process of grouping things on the basis of some criteria is known as classification.

Classification of objects is necessary because:

- it makes it convenient to locate objects, and
- it makes it easier to study the properties of objects. If we know the properties of one member of a group, it can give an idea about the properties of other members belonging to the same group.

2. To group objects on the basis of their solubility in water, perform the following activity.

Materials Required: Sugar, chalk powder, baking powder, talcum powder, vinegar, mustard oil, corn flour, milk, wax, turmeric powder, coconut oil, lemon juice and honey

Procedure: Add small amounts of each one of these to a glass tumbler of half- filled water.

Stir well. Identify the soluble or insoluble materials in water.

Observation: Group the materials and write them in the given table.

Conclusion: Some materials are soluble in water while some are insoluble.



3. To understand transparency of objects, perform the following activity.

Materials Required: A table, a book, a butter paper and a piece of glass

Procedure: Hold the book upright on the table and place your hand behind the book. Ask your friend if he is able to see your hand behind the book. Repeat the same with the butter paper and the glass piece.

Observation: Record your friend's observations in the table given below:

Object	Observation	Transparent/opaque
Book	Not able to see the hand	Opaque
Butter paper	Able to see partially	Translucent
Glass piece	Able to see clearly	Transparent

4.(a) Lustrous objects have shiny surfaces. They are generally made up of metals like, gold, silver, copper, aluminium, etc.

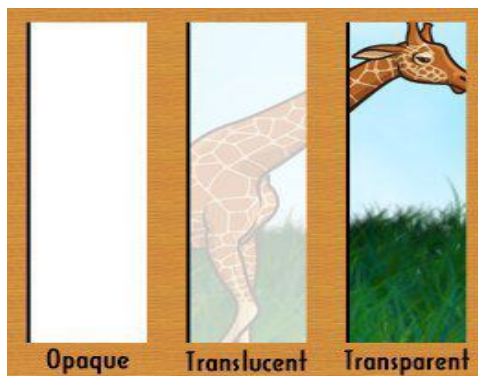
Nonlustrous objects do not have shiny surfaces. They are commonly made up of nonmetals like wood, rubber, etc.

(b) The objects which can be attracted by a magnet are called magnetic objects. They are made up of iron, nickel, cobalt, etc.

The objects which cannot be attracted by a magnet are called nonmagnetic objects. These objects are made of other kind of metals and nonmetals.



- (c) Objects through which we are able to see very clearly are called transparent objects.
 Objects through which we are able to see, but not clearly are called translucent objects.
 Objects through which we are not able to see at all are called opaque objects.



F. HOTS Questions

- To play hide and seek, we hide behind an opaque object like a pole or a car, and not behind a transparent object like a glass window because it will make us visible through itself.
- (a) On the basis of texture because some of them are rough and some are smooth.
 (b) On the basis of solubility because sugar, salt and biscuit are soluble in water while others are not.

