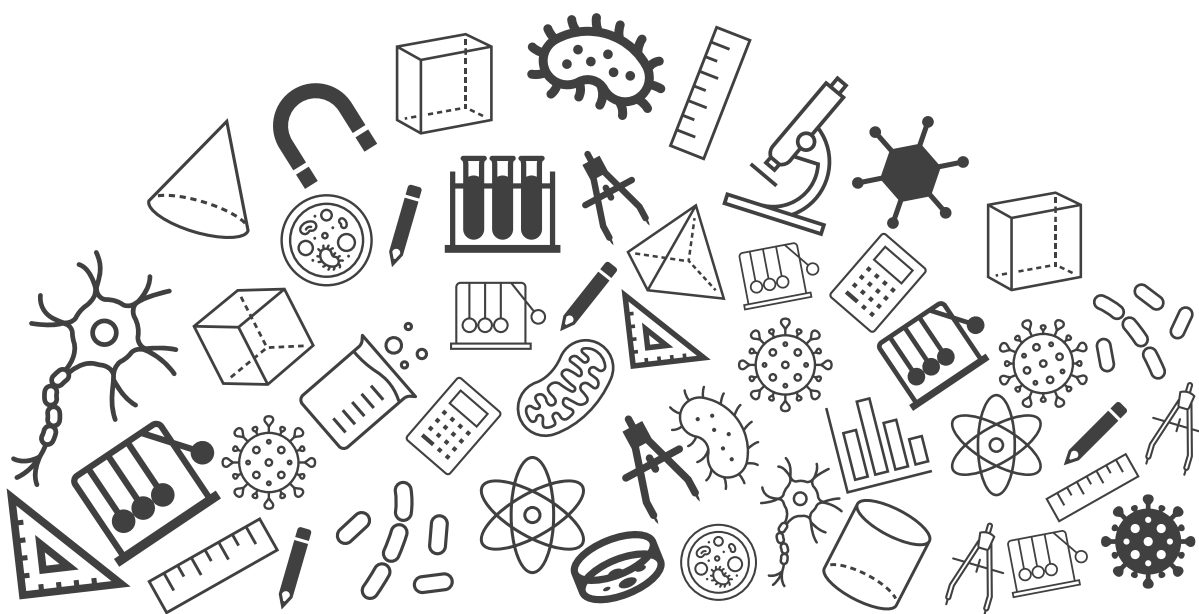




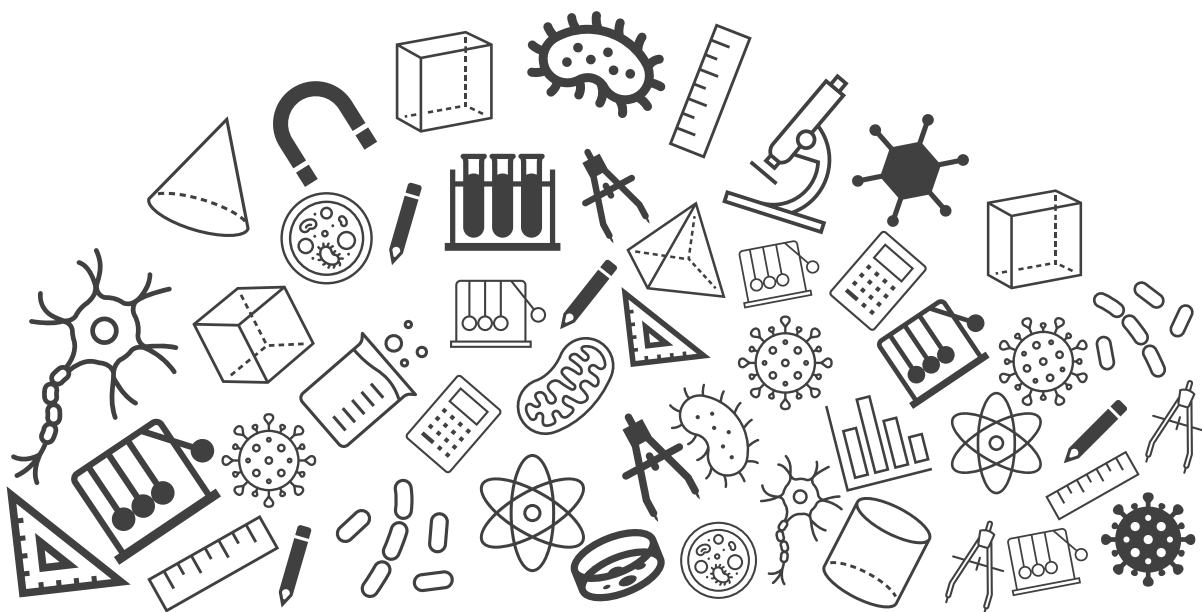
Grade 06 : Science

Exam Important Questions





Sorting of Materials into Groups



Sorting of Materials Into Groups

Topic : Exam Important Questions

1. Why do we need to group materials?

[2 marks]

Solution:

We need to group materials because:

- It provides an ease in handling objects. [1 mark]
- It makes the study and comparison of the properties of objects easy. [1 mark]

2. Differentiate among transparent, translucent, and opaque materials giving one example of each. [3 marks]

- Materials through which one can see things on the other side clearly are called transparent materials. Ex:- Glass. [1 mark]
- Materials through which one cannot see things on the other side are called opaque materials. Ex:- Wood, plastic. [1 mark]
- Materials through which one can see things but not clearly are called translucent materials. Ex:- Oily paper. [1 mark]

3. Metals have lustre (shine). Give reason why some metal articles become dull and lose their shine after sometime. [1 mark]

Metals when exposed to air react with the moisture and gases present in it and form a dull layer of some other substance on it, thereby becoming dull and losing their shine. [1 mark]

4. Why do we need to group materials? Give three reasons. [3 marks]

Grouping or sorting of materials is important because:

- (i) Grouping the objects helps us to arrange them in a systematic manner. [1 mark]
- (ii) When grouped, it is easy to know/study the properties of an object clearly. [1 mark]
- (iii) Grouping also helps in comparing two objects. [1 mark]

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5. On a bright sunny day, Shikha was playing hide and seek with her brother. She hid herself behind a glass door. Do you think her brother will be able to locate her? If yes, why? If no, why not? [1 mark]

Yes, glass allows light to completely pass through it. Thus, objects can be easily seen across the glass material. [1 mark]

So, her brother will easily locate her.

6. How can we sort materials based on their shape? Explain with the help of example.
[2 marks]

Solution:

Materials can have different shapes. The different materials can be sorted on the basis of their shapes such as spherical, triangular, rectangular and cylindrical. [1 mark]

For example, basketball, apple, orange, globe and earthen pitcher are sorted based on their shape because they all have round shape. [1 mark]

7. How does the grouping of objects help the shopkeeper?
[1 mark]

Solution:

The grouping of objects in proper way makes it easier to work. When we go to purchase some things, the shopkeeper locates it easily, because there are separate shelves to put various items and similar things are kept at one place. [1 mark]

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8. Match the objects given in Column I with the materials given in Column II.

	Column I		Column II
(a)	Surgical instruments	(i)	Plastic
(b)	Newspaper	(ii)	Animal product
(c)	Electrical switches	(iii)	Steel
(d)	Wool	(iv)	Plant product

[4 marks]

Solution:

(a) Surgical instruments are made up of steel. [1 mark]

(b) Newspaper is made up of paper and paper is obtained from plants. [1 mark]

(c) Electrical switches are made up of plastic. [1 mark]

(d) Wool is obtained from wool yielding animals, so wool is an animal product. [1 mark]

• The correct matching is as given: (a)-(iii), (b)-(iv), (c)-(i), (d)-(ii)

9. What happens when you mix salt with water? What is this property called? What would happen if we use chalk powder instead of salt? Why? How can you classify materials based on this property? [5 marks]

When salt is mixed with water, it dissolves in the water and disappears. [1 mark]

This property of dissolution of salt in water is called solubility. [1 mark]

If chalk powder was used instead of salt, it will not dissolve in water but will settle down as sediment after a while. [1 mark]

This is because chalk powder is insoluble in water. [1 mark]

Based on solubility, materials can be classified as either soluble or insoluble. [1 mark]

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10. During summer holidays, a group of children collected a lump of salt, green grass, broken glass piece, a small thermocol box, pen, iron nail, glass marbles, hair, naphthalene ball, a piece of sugar candy (mishri) and tried to group them on the basis of properties given in table. Help them in filling the table.

Name of the Material	Floats/Sinks in water	Soluble/insoluble in Water
.....
.....

Name of the material	Floats/Sinks in water	Soluble/ Insoluble in water
Lump of salt	Sinks (0.5 Marks)	Soluble (0.5 Marks)
Green grass	Floats (0.5 Marks)	Insoluble (0.5 Marks)
Broken glass piece	Sinks (0.5 Marks)	Insoluble (0.5 Marks)
A small thermocol box	Floats (0.5 Marks)	Insoluble (0.5 Marks)
Pen	Sinks (0.5 Marks)	Insoluble (0.5 Marks)
Iron nail	Sinks (0.5 Marks)	Insoluble (0.5 Marks)
Glass marbles	Sinks (0.5 Marks)	Insoluble (0.5 Marks)
Hair	Floats (0.5 Marks)	Insoluble (0.5 Marks)
Naphthalene ball	Sinks (0.5 Marks)	Insoluble (0.5 Marks)
A piece of sugar candy (Mishri)	Sinks (0.5 Marks)	Soluble (0.5 Marks)