

01

A student uses a measuring jar to measure the amount of water needed to perform an experiment.

- (a) Why is iron not a suitable material for making the measuring jar ?
- (b) Why is clear glass a suitable material for making the measuring jar ? Give two reasons.

- (a) Iron does not allow us to see through it. So, we cannot see the water level inside the measuring jar. Iron is opaque, so it does not allow us to see the water level inside the measuring jar. The measuring jug has to be transparent for the student to see the water level in it. Iron is opaque, not transparent.
- (b) Clear glass is transparent. We can see through it clearly. Clear glass is waterproof.
 - A material is transparent if it allows light to pass through/enables us to see through it.
 - A material is waterproof if it does not allow water to pass through or if it does not absorb water.

02

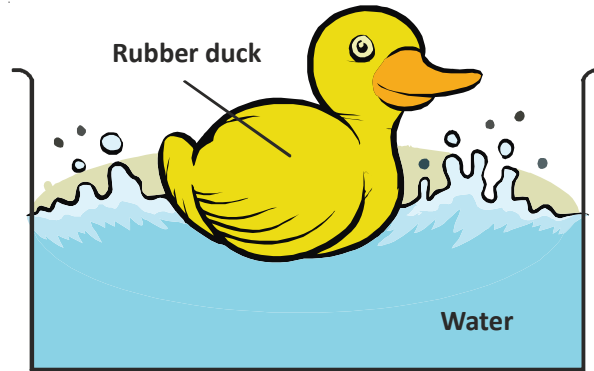
Read the classification table given below.

Group S	Group T
Cotton Wood	Leather Silk

- (a) Write an appropriate heading for each group.
Group S :
Group T :
- (b) Based on your answer in (a), which group do wool and tin belong to ?
(i) Wool belongs to
(ii) Tin belongs to
- (c) Explain why cotton is a suitable material for making shirts but wood is not.

- (a) Group S: Materials obtained from Plants
Group T: Materials obtained from animals.
- (b) (i) Group T
(ii) Neither of the two groups
Tin is obtained from the ground, not from plants or animals.
- (c) Cotton is soft and flexible, and thus cotton shirts are comfortable to wear. Wood is not flexible.
Cotton is light in weight and can absorb human body's sweat. It is able to absorb dyes too.

03 A boy placed a rubber duck into a tank of water as shown below.



- What did he observe when he placed the rubber duck into the tank of water ?
- To which group does the rubber duck belong to ? Explain your answer.

Group X	Group Y
Iron nail Needle	Wooden cork Oil

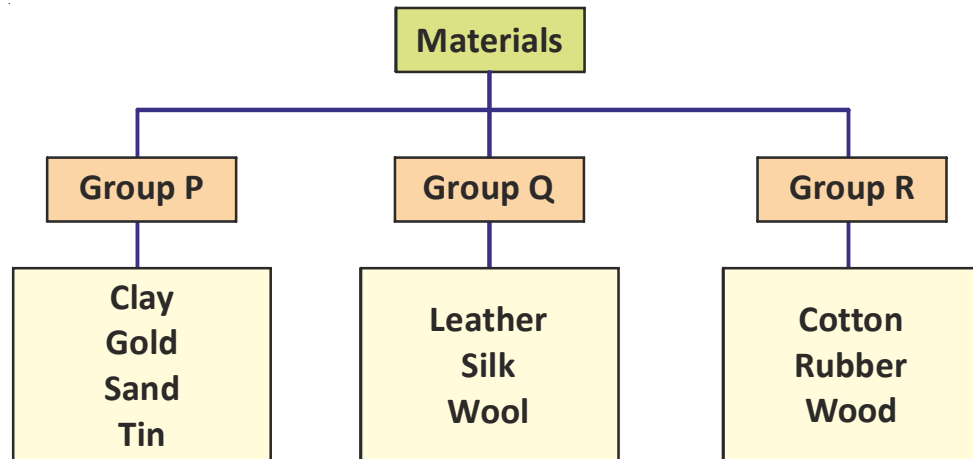
- The rubber duck floats on water.
- Rubber duck belongs to Group Y. The items in group Y float on water but the items in group X sink in water.

Iron nails and needles are made up of metals which sink in water.

Wooden corks and oil float on water.

04

Read the classification chart given below.

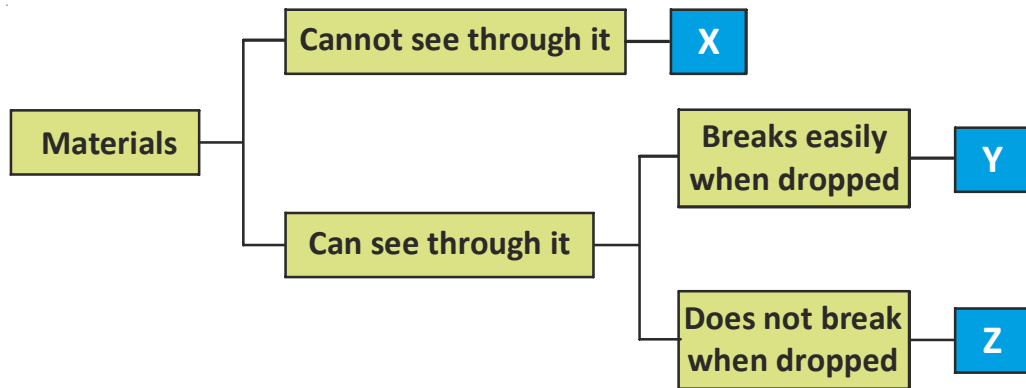


- (a) Write appropriate headings for groups P, Q, and R.
 Group P:
 Group Q:
 Group R:
- (b) Can plastic be placed in the given classification chart ?
 Explain your answer.

- (a) Group P: They are obtained from the ground.
 Group Q: They are obtained from the animals.
 Group R: They are obtained from the plants.
- (b) No. Plastic is a man-made material but all the materials given in the chart are natural materials.
 Plastic is made from crude oil by man. All the materials given in the chart exist in nature.

05

Read the given flow chart.



- (a) How are material Y and material Z similar ?
- (b) Which material is most suitable for making milk bottles ?

- (a) Both the materials Y and Z can be seen through as they are transparent and allow light to pass through them.
- (b) Z is clear plastic.

Usually clear plastic is used to make milk bottles as we can see through them to find out the amount of milk in the bottle. If dropped accidentally, it will not break into pieces and injure the child.