

CLASS- IX
CHEMISTRY

NCERT BASED ACTIVITIES

Describe an activity to show that there are present spaces between particles of matter.

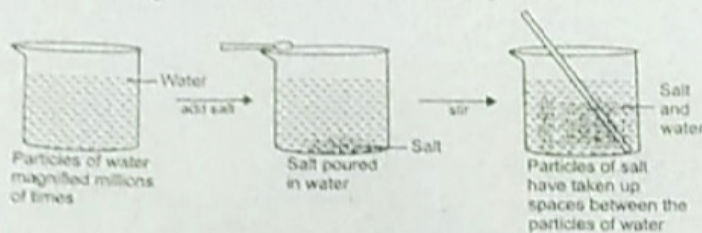
Activity Project 1 : To show that there is space between particles of matter.

[CBSE 2013]

Materials Required : 100 ml beaker, water, salt, glass rod.

Procedure

- Take a 100 ml beaker and fill it with water and mark the level of water.
- Dissolve the given salt with the help of glass rod.
- Observe the change in the water level and record your observations.



To show— Space between particles of matter

Observations

- : The salt gets dissolved in water. The particles of salt have entered the space between water molecules, therefore, the level of water does not change.

Conclusion

- : The salt consists of large number of small particles which occupy the space between molecules of water.

Describe an activity to show that matter is made up of very small particles.

Activity Project 2

: To show that matter is made up of very small particles.

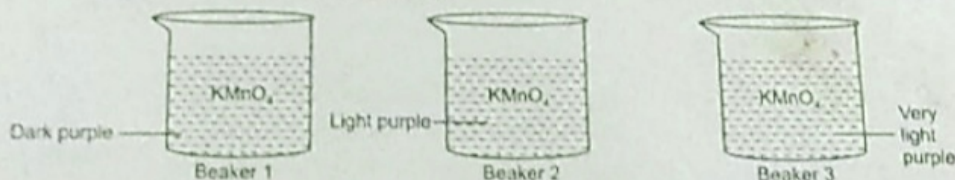
[CBSE 2014]

Materials Required

: Crystals of KMnO_4 (potassium permanganate), water, 3 separate beakers.

Procedure

- Take 2-3 crystals of KMnO_4 and dissolve them in 50 ml of water in beaker 1.
- Take 5 ml of solution from beaker 1 and put it into 50 ml of water in beaker 2 and observe the colour of solution.
- Take 5 ml of solution from beaker 2 and put it into 50 ml of water in beaker 3 and observe the colour of solution.



To show—Matter is made up of very small particles

Observations

- : The colour of solution remains purple in all the beakers.

Conclusion

- : It shows that even 2-3 crystals of KMnO_4 consist of millions of small particles which dissolve in water giving purple colour to the solution.

Describe an activity to show that particles of matter are continuously moving.

Activity Project 3

: To show the particles of matter are continuously moving.

Materials Required

: Incense stick or agarbatti, match box.

Procedure

- Put an unlit incense stick in a corner of your class.
- Go close to the incense stick to smell it.
- Now light up the incense stick. And try to get the smell from a distance.

Observations

- : The smell of unlit incense stick can be observed only by going close to it whereas the smell of lighted incense stick can be observed from a distance.

Conclusion

- : The particles of matter are continuously moving but the speed of particles is very slow. The speed of particles increases with the increase in temperature.