Q.1- Why do solids have a fixed shape and definite volume?
Ans- Solids have fixed shape and definite volume because their particles are held tightly and cannot move freely.

Q.2- Briefly describe in activity to show that pure water is a transparent liquid?
Ans- Take a glass of water and coin.

put the coin in glass which is full of water, when we observe that ,we can see the coin. so, we can say water is transparent liquid.

Q.3- Describe an activity to show solid can slowly diffuse into liquid?

Ans-Take a glass of water and sugar.

put 1 tea spoon of sugar in glass of water and stir it.

we will observe that sugars particles are mixed with water. Hence, we can say that solid can slowly diffuse into liquid.

Q.4- What is a 'saturated solution'? How one can prepare a saturated solution of common salt in water?

Ans-Saturated Solution - solution, in which more of a given substance, cannot be dissolved at a given temperature.

Take a glass of water and salt

keep adding 1 tea spoon of salt in water untill it stops dissolving.

When salt stops dissolving then we can say that the solution is saturated solution.

Q.5- Suggest one activity to show the effect of temperature on the solubility of a solid in water.

Ans-Take equal volume of water into separate glass tumbler.

Heat the water in one of the tumbler and equal amount of sugar into tumbler and stir. The sugar dissolved keep on adding measured amount of sugar into tumbler till it stops dissolving. Find out in which tumbler more amount of sugar has dissolved. You will find the amount of sugar dissolved in hot water is more.