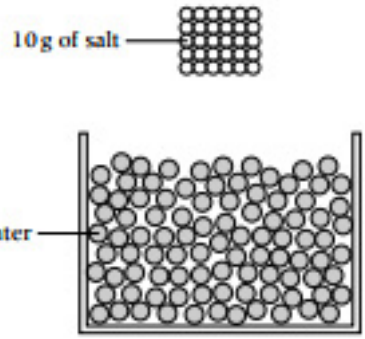
SCIENCE TEACHER.IE

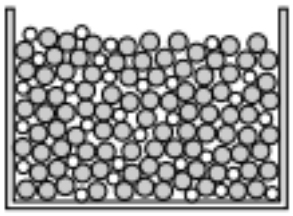
Particles and dissolving

Fill in the gaps in these sentences using words from the box. Each word may be used once, more than once, or not at all.



The particles in _____ are held together in a _____ arrangement.

The _____ in water can move around.



When the salt _____ , the salt _____ are not held together any more.

They _____ with the _____ particles to form a _____ .

The mass of the solution will be _____ g. If we had dissolved 20 g of salt in the water, the _____ of the solution would have been _____ g.

100	**110**	**120**	**130**	**dissolves**	**fixed**	**mix**
Particles	**salt**	**solute**	**solution**	**water**	**mass**	

Other types of mixtures

When some solute dissolves in a solvent, a solution is created. This is one kind of mixture. There are other types of mixtures that can be created.

In a substance like milk, the two parts (fat and water) do not mix completely together, and we get a suspension, so called because the particles are held suspended in the liquid.

Suspensions can be recognised because they are cloudy or misty. Some suspensions will separate out like muddy water

In other cases, the particles will be so small that they will stay suspended for a very long time. These are known as **colloids**. The particles in a colloid may be too small to be seen under normal conditions but show up when a beam of light shines on them. You can see this effect when headlights are used in fog. The tiny drops of water are suspended in the air and reflect some of the light. You will probably be familiar with many colloids, even if you don't realise it! There are many different types of colloid

This table shows the names given to different types of colloid.

	Substance 1	
Substance 2	solid	liquid
liquid	sol (solid in liquid) or gel (liquid in solid)	emulsion
gas	aerosol (solid in gas) or solid foam (gas in solid)	aerosol (liquid in gas) or foam (gas in liquid)

Task

Prepare a chart or poster showing examples of the different types of colloids that you find around the house, putting each one into the correct category. You may be able to draw pictures of the different types or collect product labels.

Some examples that you could use are: milk, mayonnaise, smoke, jelly, hair spray, whipped cream, expanded polystyrene, shaving cream, toothpaste, dust, furniture polish and skin creams