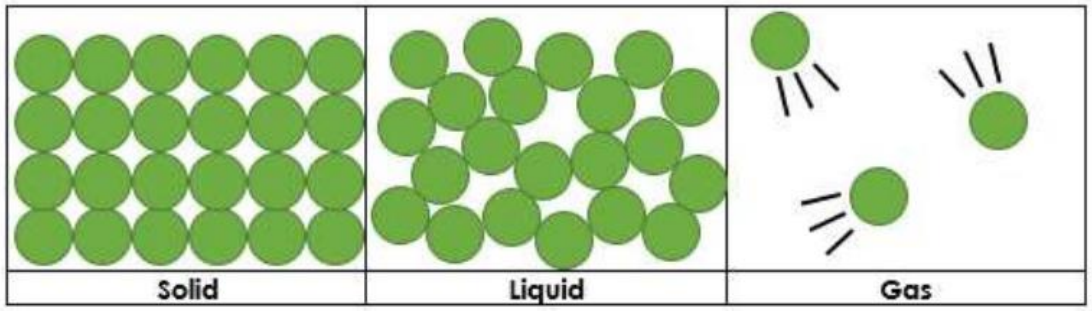
Year 6 Knowledge Organiser Science– Particles and Chemical Reactions

Key Vocabulary		
1	particles	A particle of something is a very small piece or amount of it.
2	solid	A solid substance or object stays the same shape whether it is in a container or not.
3	liquid	A liquid is a substance which is not solid but which flows and can be poured, for example water.
4	gas	Gas is a substance like air that is neither liquid nor solid and burns easily. It is used as a fuel for cooking and heating.
5	pure substance	A substance that contains only one type of particle.
6	impure substance	A substance that contains more than one type of particle.
7	insoluble	If a substance is insoluble, it does not dissolve in a liquid.
8	solution	A liquid that a solid substance has been dissolved in to.
9	solute	The liquid that contains the dissolved substance.
10	solvent	A liquid that a substance can dissolve in.
11	soluble	A substance that will dissolve when put into a liquid.
12	states of matter	Almost all substances can be classified into three states of matter – solids, liquids and gases.

Key Learning	
solid	Particles in a solid are arranged in a regular pattern and are all touching. Particles vibrate on the spot but cannot move from place to place.
gas	Particles in a gas are moving very quickly in all directions, they have a random arrangement and are not touching.
liquid	The particles in a liquid are in a random arrangement and are close together. The particles are able to move around each other.



Important Scientific Methods	
Sieving	A process to separate large solid particles from a mixture. For example, separating pasta from water.
Filtration	A process to separate small insoluble particles from a mixture. For example, separating sand from water.
Evaporation	A process to remove a liquid from a solution. For example, separating salt from water.
Combustion	Combustion is the scientific term for burning. In a combustion reaction, a fuel reacts with oxygen to produce carbon dioxide and water and releases energy. The general word equation for a combustion reaction is: Fuel + Oxygen → Carbon Dioxide + Water