

Wellesley Park Primary School – Science

Topic: Properties and changes of materials

Year: 5

Strand: Physics

What should I already Know?

- In **Year 1** you were also able to compare and group together a variety of everyday materials on the basis of their simple physical properties e.g. bendy and opaque
- In **Year 2** you found out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching
- In **Year 4** you grouped materials according to whether they were solids, liquids and gases
- In **Year 4** you also learnt that some material can change state if they are heated or cooled

What will I know by the end of the unit?

I know that some materials will dissolve in liquid to form a solution, and can describe how to recover a substance from a solution

I can use my knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating

I can demonstrate that dissolving, mixing and changes of state are reversible changes

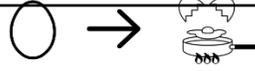
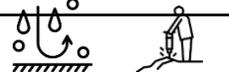
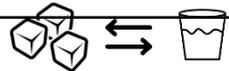
I can explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda.

Big Questions

Why do some things dissolve quicker than others?

Are non-biodegradable plastic bags a good example of non-reversible changes?

Vocabulary

word	meaning	Image
condensation	the process where a gas turns to a liquid	
dissolves	when a solid becomes or is incorporated into a liquid	
evaporation	the process where water is changed into gas	
filter	to separate a mixture of solids and liquids	
gas	a state of matter where the particles are free to move around	
insoluble	something that does not dissolve, you can still see it in the liquid	
irreversible	a change in states of matter that can not be reversed	
liquid	a state of matter where the particles are fill the shape of the container they are in	
melting	The process where a solid changes to a liquid due to heat	
properties	the features of a material e.g. hard, bendy, smooth, waterproof	
reversible	a change in states of matter that can be reversed between the states	
solid	a state of matter where the particles are tightly packed	
soluble	something that is able to be dissolved, you can no longer see it in the liquid	
solution	A mixture where you can not see individual solids or liquids	