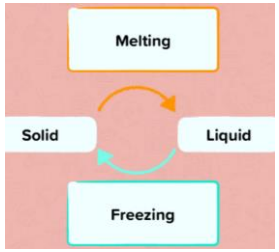
Year 5 – Spring 2 – Science – Pupil Knowledge Organiser

What do I already know?	What am I learning now?
• A mixture is a combination of different substances that are not joined together. • Soluble materials have really small grains. These will form a solution with water. • If a material is insoluble, it will not dissolve in water. • Insoluble materials have hard and rough grains. These will form a mixture with water. • We can make dissolving happen faster by stirring a solution or by using hot water.	1. Can we plan an investigation using our prior learning? (WS) 2. Can we separate salt, sand and water from a mixture? (WS) 3. What makes a scientific conclusion? (WS) 4. Can changes be reversed? 5. Are all changes reversible?

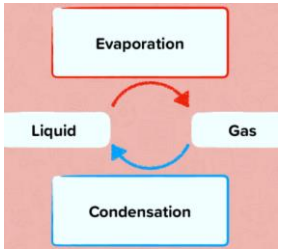
Key Knowledge: Materials (Continued)
Working Scientifically Focus

Changing states of matter are the most common reversible changes.



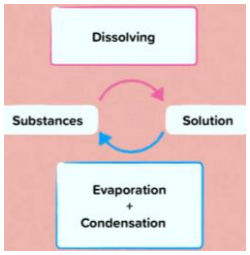
Melting is a reversible change. You can undo its effects by **freezing** the substance.

Freezing is a reversible change. You can undo its effects by **melting** the substance.



Evaporating is a reversible change. You can undo its effects by **condensing** the substance.

Condensation is a reversible change. You can undo its effects by **evaporating** the substance.



Dissolving is a reversible change. You can undo its effects by **evaporating** and **condensing** the liquid.

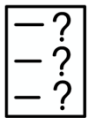
The product of a chemical reaction will have different properties to the reactants.

Cooking is an irreversible change. You cannot get the original ingredients back.

Burning is also an irreversible change. The material cannot be returned to its original state.

Key Skills:
Working Scientifically

Ask Questions



Enquiry

Observe

Record/ Present

Conclusions

Evaluation

Communicate

Key Vocabulary

soluble	Dissolves in liquid.
dissolve	To break up into very tiny pieces and mix with a liquid.
solution	A liquid that has a solid dissolved into it.
independent variable	The thing you change in an investigation.
dependent variable	The thing you measure in an investigation.
control variable	The things you keep the same to make it a fair test.
conclusion	What you learn from the results of an investigation.
reversible	A change that can be undone, like melting or freezing.
irreversible	A change that cannot be undone, like burning or cooking.
chemical reaction	When two or more substances (reactants) react and make something new (product).