Kingsley CP Knowledge Organiser

Science focus	Changing Materials	Year 5	Summer 1

What? (Key Knowledge)

Properties and Changes of Materials	
Materials	Substances are made out of different materials (e.g. wood,, plastic, metail) that have different properties that influence what we use the materials for.
Solids	One of the three states of matter. Solid particles are very close together meaning solids, such as wood and glass, hold their shape.
Liquids	This state of matter can flow and take the shape of the container because the particles are more loosely packed than in solds and can move around each other. Examples of liquids include water and milk.
Gases	One of the three states sof matter. Gas particles are further apart than solid or liquid particles and are free to move around. Examples of gases are oxygen and helium.
Dissolving	A solution is made when solid particles are mixed with liquid particles. Materials that will dissolve are known as soluble. Materials that won't dissolve are known as insoluble. A suspension is when the particles don't dissolve.
Reversible vs Irreversible changes	Reversible changes include mixing and dissolving solids, as these processes can be reverse and the originals substrances retrieved. Irreversible changes often result in a new peoduct being made from the old materials (reactants)

Possible experiences

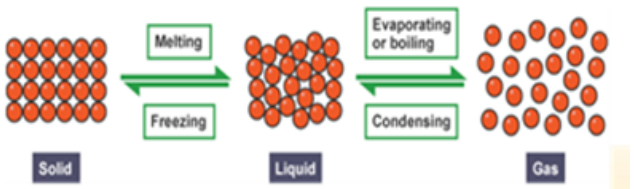
- Investigations of reversible and irreversible changes
- Creation of a local 'water cycle'

What? (Key Vocabulary)

States of Matter	All materials can be categories into one of three states - solid, liquid or a gas.
particles	A minute portion of matter
reversible	Capable of being changed back into a previous state
irreversible	Not able to be undone or altered
molecule	A molecule is formed when two atoms are joined together
solution	A liquid mixture where a solid has dissolved into a liquid
dissolve	When a solid becomes incorporated into a liquid to form a solution
evaporation	When a liquid turns into a gas
condensing	The opposite of evaporation—changing a gas back into a liquid

Diagrams and Symbols

Changing states of matter



The water cycle: natural example of changing states of matter