Year 5 Knowledge Organiser: Changes of Materials

Skills

- *Classify mixtures of liquids and solids.*
- *Observe reversible and irreversible changes over time.*
- *Comparative tests for solubility or reversible changes.*

Knowledge

To know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution.
To use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating.
To demonstrate that dissolving, mixing and changes of state are reversible changes .
To 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.

Chemistry

Year 5 Knowledge Organiser: Changes of Materials

Essential vocabulary	
change of state	A **change of state** is the **change** of a substance from one physical form to another.
mixture	a substance made by mixing other substances together.
dissolve	the **definition** of **dissolve** is to cause a solute to pass into a solution.
solution	**A mixture of two or more substances.**
soluble	**Soluble substances are substances that dissolve in water.**
Insoluble	**Insoluble substances are substances that don't dissolve in water.**
reversible change	A **reversible change** is a **change** that **can** be undone or reversed.
irreversible change	A **reversible change** is a **change** that **cannot** be undone or reversed.

Bridging forwards:
Year 7 Chemistry

Question/Vocabulary	Essential Knowledge
1.What do solid, liquid and gas particles look like?	
2. How can you change a liquid into a solid? How can you reverse this change?	A solid melts to form a liquid. A liquid freezes to form a solid.
3. How can you change a liquid into a gas? How can you reverse this change?	A liquid evaporates to form a gas. A gas condenses to form a liquid.
4.What is a solution?	A solution is formed when solid particles are mixed with liquid particles.
5. Materials that dissolve are known as _____. Materials that don't dissolve are known as_____.	Materials that dissolve are known as soluble. Materials that don't dissolve are known as insoluble.
6. How can reversible changes, such as mixing and dissolving be reversed?	Mixing and dissolving can be reversed by sieving, filtering and evaporating.
7. Could you give an example of a reversible change?	An example of a reversible change is melting ice into water OR boiling water to form steam.
8. Could you give an example of an irreversible change?	An example of an irreversible change is burning wood to produce ash OR heating an egg to cook it.

Bridging backwards:
Year 4 States of Matter