Science: Year 5 Knowledge Organiser
Properties and Changing materials

Subject Specific Vocabulary

solubility	Is a chemical property referring to the ability for a given substance, the solute, to dissolve in a solvent.
conductivity	Conductivity defines a material's ability to conduct electricity.
transparency	In general, transparency is the quality of being easily seen through.
thermal evaporation	Something that is thermal is hot, retains heat, or has a warming effect. Evaporation is the process of a substance in a liquid state changing to a gaseous state due to an increase in temperature and/or pressure.
dissolve	To dissolve is defined as to become broken up or absorbed by something or to disappear into something else.
bicarbonate of soda	A white water-soluble powder, used chiefly as an antacid, a fire extinguisher, and a leavening agent in baking.
thermal	Something that is thermal is hot, retains heat, or has a warming effect.
filtering	To filter a substance means to pass it through a device which is designed to remove certain particles contained within.
melting	Melting is a physical process that results in the transition of a substance from a solid to a liquid.
separate	Separate, part, and divide mean to break into parts or to keep apart.

Interesting Books

Important facts to know by the end of the topic:

- Know what a reversible change is and means.
- Know what an irreversible change is and means.
- Give examples of reversible and irreversible changes.
- Know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution.
- Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating.

Key Knowledge

-Irreversible changes, like burning, cannot be undone. Reversible changes, like melting and dissolving, can be changed back again.

-Mixtures can be separated out by methods like filtering and evaporating. A change is called irreversible if it cannot be changed back again.

-Examples of reversible changes: Melting is when a solid converts into a liquid after heating. An example of melting is turning ice into water. Freezing is when a liquid converts into a solid.

-A cooked egg cannot be changed back to a raw egg again. Mixing substances can cause an irreversible change. For example, when vinegar and bicarbonate of soda are mixed, the mixture changes and lots of bubbles of carbon dioxide are made. Burning is an example of an irreversible change.

Properties and Changing of Materials

	Start of Unit	End of Unit		Start of Unit	End of Unit
Question 1- How can everyday materials be grouped together based on evidence about their hardness, solubility, transparency and conductivity?	Start of Unit	End of Unit	Question 4- Develop knowledge of solids, liquids and gases.	Start of Unit	End of Unit
Question 2- Which materials will dissolve in liquid to form a solution?	Start of Unit	End of Unit	Question 5- How might mixtures be separated?	Start of Unit	End of Unit
Question 3- How do you recover a substance from a solution?	Start of Unit	End of Unit	Question 6- What uses do our everyday materials have? Eg. Metals, wood and plastic.	Start of Unit	End of Unit
	Start of Unit	End of Unit		Start of Unit	End of Unit