Norwood Green Junior School - Science

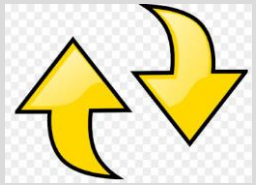
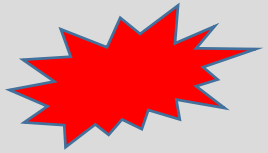
Topic: Changes of Materials | Year 5 | Term: Spring 2

Changing Materials

- Important Facts

- Water is an example of a chemical compound - when two or more elements join together to form molecules.
- Water is 2 Hydrogen (H) atoms + 1 Oxygen (O) atom = H2O.
- A 'mixture' in a scientific sense, can always be broken down into its component parts.

Diagrams

Property	Physical Change	Chemical Change
Explanation	Molecules are rearranged but the actual type of molecules stay the same.	The type and make-up of the molecules is changed and a new substance is formed.
Change 	A temporary change that is easily reversed, and no new substance is formed.	A permanent change that is irreversible, with a new substance always being formed.
Energy	No energy is produced, and very little or no energy is absorbed.	Energy is produced, in the form of light or heat (for example) and energy is also absorbed.
Effects 	Only has an effect on physical properties of a substance or object i.e. shape, size.	Changes both physical and chemical properties of a substance or object.

Vocabulary

separate	To split or divide a substance into its distinct elements.
solution	A mixture of two substances, the solute and the solvent
solute	A substance that is dissolved in liquid.
solvent	A substance that dissolves a solute, such as water.
irreversible	Impossible to change back to a previous condition or state.
compound	A substance formed when two or more chemical elements are bonded together.
physical change	A change in material in which no new substances are formed.
chemical change	A change that results in the creation of few chemical substances.

What will I know by the end of this unit?

- I will know ways in which materials can change.
- Describe changes that can happen to materials.
- Explain how physical changes can be reversed.