

Scientific Enquiries



WHO?

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Year 1, 2
and 4

Chemistry



Vocabulary

conductive	A material that allows heat/electricity to pass through	solute	A substance that can be dissolved
thermal	Allowing or producing heat	solvent	A substance that can dissolve a solute (e.g. water)
conduction	Heat moving from one object to another through contact	filtering	The separate of a mixture using a tool with small holes to separate particles
dissolve	To mix and become part of a liquid	evaporation	The process where a liquid turns into a gas

WHAT?

1.

- Some **everyday materials** include: wood, plastic, glass, metal, water, rock.
- **Wood** is strong and stiff; **plastic** is extremely light weight; **metals** are strong, hard and shiny; **glass** is usually transparent; **rocks** can be hard or soft

4.

- **Dissolving** is when something becomes part of a liquid.
- **Soluble** materials **dissolve** – called **solutes**. The liquid that can dissolve solutes is called a **solvent**.
- Examples of **soluble materials** are coffee, sugar and squash.
- **Insoluble** materials **cannot** be dissolved e.g. plastic and metal

2.

- A **thermal conductor** is a material that allows **energy** (in the form of **heat**) to be transferred within the material without any movement of the material itself (e.g. **metal**)
- Materials that are **poor conductors** of thermal energy are called **thermal insulators** (e.g. **plastic**)

5.

- The **saturation point** of a material is the stage at which **no more** of a substance can be **absorbed** into a **vapour** or **dissolved** into a solution.
- An everyday example of an observable saturation point could be a **sponge** when it has reached the **maximum amount** it can **absorb**.

3.

- **Hardness** is the ability of a material to withstand deformation. Hard materials can resist a **compressive force** and **scratching**.
- Hardness ranges from super hard materials such as **diamonds** and **ceramics**, to soft materials such as **plastics** and **soft tissues**.

6.

- **Mixtures** can be physical **separated** using different methods: **filtering**, **sieving**, **evaporating** and using a **magnet**.
- **Different materials** require **different methods** for **separation** e.g. **magnetic metals** will need a **magnet**, **small solids** in a liquid can be **filtered** etc.

Helpful links

Learn more about Stephanie Kwolek!



What is chemistry?



What's the difference between mixtures and solutions?



Magnetic separation!

