

My Knowledge Journal



Materials

Waterproof and Non-waterproof / Floating and Sinking

Name: _____

Pre Knowledge Quiz

Colour the materials that are waterproof.

Fabric

Plastic

Paper

Glass

What does absorbent mean?

Circle the objects that float.



Who invented waterproof fabric?

Materials Knowledge Organiser

What should I already know?

- Materials different objects are made from
- Objects feel and look different based on the material from which they are made
- The purpose of what some materials are used for
- Some words to describe materials (i.e hard, smooth, bendy, transparent, opaque)



Lots of objects are made out of certain **materials** because of their **properties**.

Materials that do not **absorb** water are called '**waterproof**' materials. Waterproof materials can be very useful for lots of everyday things like umbrellas, boats, housing, raincoats and some packaging.

Glossary	
Absorb/Absorbent	Able to soak up liquid easily
Experiment	To make a scientific discovery
Float	Rest or move on or near the surface of a liquid without sinking
Invention	Something that has been invented – never done before
Liquid	Something that flows freely like water or oil
Materials	Something that an object or thing is made from
Microscope	An instrument used for viewing very minute objects
Non waterproof	A material that lets water in
Particles	(of a material) Minute microscopic bits of a material
Properties	(of a material) A thing or things belonging to a particular material or object
Sink	Go down below the surface of a liquid
Waterproof	A material that keeps water out

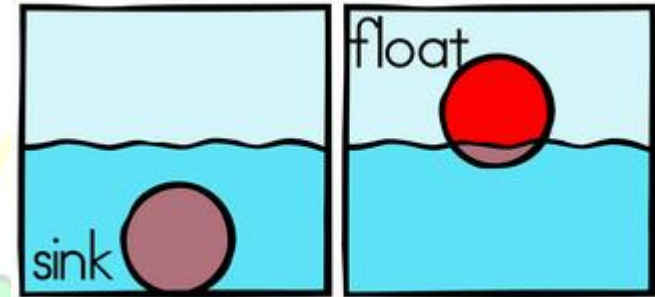


Key People



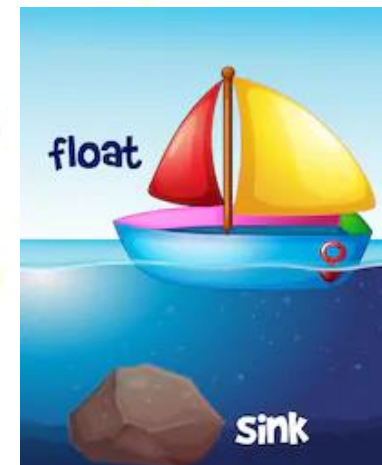
Charles Macintosh

- Charles Macintosh was born in 1766 in Scotland
- He left his job as a clerk when he was 19 and started work **experimenting** with ways to make new materials
- During one of his experiments, he found that rubber could be melted into a **liquid** and the dissolved liquid rubber was waterproof
- Charles realised it could be used to make waterproof fabric for clothes
- He painted the melted rubber onto a piece of woollen cloth
- Charles had invented waterproof fabric!
- He started to use this fabric to make waterproof coats
- His **invention** was so important that raincoats are named after him and are often called Mackintoshes, or macs



Floating and Sinking

Whether an object **sinks** or **floats** depends on its **density**. Everything is made of tiny **particles** that can only be seen with a **microscope**. Some objects have particles that are packed closely together. Others have particles that are packed more loosely. This is density. Objects with tightly packed particles sink. Objects with more loosely packed particles float. Wood, cork or sponges float.



Post Knowledge Quiz

Colour the materials that are waterproof

Fabric

Plastic

Paper

Glass

What does absorbent mean?

Circle the objects that float.



Who invented waterproof fabric?
