



# Year 5 Get Sorted/Everyday Materials Knowledge Organiser



| Materials |          |
|-----------|----------|
| ceramic   | concrete |
| glass     | metal    |
| plastic   | rock     |
| rubber    | textile  |
| water     | wood     |

### Investigations

#### Carrying Out A Scientific Investigation

- 1) What are you investigating?**  
Think of a question to ask.
- 2) What do you think will happen?**  
Make a prediction. Why did you make it?
- 3) What will you change?**  
You can only change 1 thing - this is your variable.
- 4) How is it fair?**  
You need to keep everything else the same - these are your constants.
- 5) What will you measure?**  
What are you going to be looking for?  
What equipment will you need to measure it?
- 6) How will you record your results?**  
What is the best way? Table, bar chart, line graph, pie chart.
- 7) What did you conclude?**  
Describe what happened.  
Are there any patterns? Why is this?  
Are there any odd results that don't fit with the others?  
Was your prediction right?   
Did anything unexpected happen?

### Properties of Materials

#### Elastic

An elastic material will stretch and then return to its original shape. Rubber is used to make rubber bands because it is elastic.

#### Flexible

Flexible materials bend without breaking. We use leather to make shoes because it is flexible.

#### Rigid

Rigid materials do not bend easily. We use wood to make tables because it does not bend easily.

#### Hard

A hard material is difficult to scratch or wear away. We make knives out of steel because it is hard.

#### Soft

A soft material easily scratches or wears away. We draw pictures using chalk because it is soft and wears away easily.

#### Transparent

A transparent material allows light to pass through it. We use glass to make windows because it is transparent.

#### Tough

Tough materials do not break if they are hit or dropped. We use rubber to make balls because it is tough.

#### Opaque

Opaque materials do not let light through. We cannot see through them. We make curtains from fabric because it is opaque.

#### Strong

Strong materials do not bend or break when force is applied to them. We use bricks to build houses because they are strong.

#### Weak

Weak materials are easy to break. We use paper to wrap presents because it is weak - we can tear it easily.

#### Absorbent

Absorbent materials soak up water. Towels are made of cotton fabric because it is absorbent.

#### Waterproof

Waterproof materials do not let water through them. Nylon fabric is used to make tents because it is waterproof.

#### Electrical Conductor

An electrical conductor allows electricity to pass through it. Copper is used to make wires because it is a good electrical conductor.

#### Electrical Insulator

An electrical insulator does not allow electricity to pass through it. Plastic is used to coat wires because it is an electrical insulator.

| Key Vocabulary     |   |
|--------------------|---|
| <b>conductor</b>   | A material or device which allows heat or electricity to carry through. |
| <b>insulator</b>   | A substance which does not readily allow the passage of heat or sound.  |
| <b>magnetic</b>    | Capable of being magnetised or attracted by a magnet.                   |
| <b>malleable</b>   | Able to be hammered or pressed into shape without breaking or cracking. |
| <b>materials</b>   | The matter from which a thing is or can be made from.                   |
| <b>opaque</b>      | Not able to be seen through, not transparent.                           |
| <b>permeable</b>   | Of a substance, being such that gas or liquid can pass through it.      |
| <b>properties</b>  | The ways in which an object behaves.                                    |
| <b>soluble</b>     | Able to be dissolved, especially in water.                              |
| <b>translucent</b> | Allowing light, but not detailed shapes, to pass through.               |
| <b>transparent</b> | Allows light to pass through so that objects behind can be seen.        |
| <b>viscosity</b>   | The state of being thick, sticky, and semi-fluid in consistency.        |