

## Home Learning – Week 3 Monday – Science

Task - Learn about different types of materials and complete the following activities.

### Challenge 1 - How to identify materials

Watch the first video on this page about different materials

<https://www.bbc.co.uk/bitesize/topics/z4339j6/articles/zx8hhv4>



### Challenge 2 - Read this information about different materials.

**Materials have different properties that make them useful for different jobs.**

**Metals** - Most metals are strong, hard and shiny materials that can be hammered into different shapes without breaking. They are good conductors of heat and electricity and some are magnetic. Their properties make them useful for objects such as cutlery, saucepans, cars and coins.

**Plastics** - Plastics are materials made from chemicals and are not found in nature. They are strong and waterproof. They can be made into any shape by applying heat. Plastics are not magnetic. They are good insulators and don't conduct heat or electricity. They're used to make things like bags, bottles and toys.

**Glass** - Glass is made by melting sand and other minerals together at very high temperatures. It is normally transparent and can be made into different shapes. Thick glass can be strong, but thin glass breaks easily. It's used for objects that need to be transparent, such as windows and spectacles.

**Wood** - Wood comes from trees. It is strong, flexible and long-lasting. It is an insulator of heat and electricity. It's used to make things such as furniture.

**Fabrics** - Fabrics are made from thin fibres woven together. Different fabrics have different properties. They can be stretchy (a pair of tights), insulating (a woollen coat) or absorbent (a towel). Fabrics are used to make clothes as they are flexible, warm and do not wear out easily.

List 4 different items that are made out of each material. An *example* of each has already been done for you.

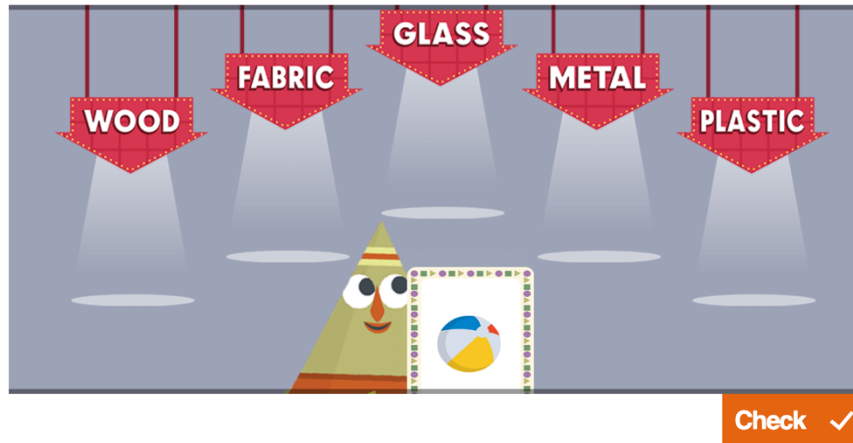
Metal	Plastic	Glass	Wood	Fabrics
<i>Saucepan</i>	<i>Pencil case</i>	<i>Window</i>	<i>Dining table</i>	<i>Blanket</i>

### Challenge 3 - Sorting materials

<https://www.bbc.co.uk/bitesize/topics/z4339j6/articles/zx8hhv4>

Scroll to the bottom of this webpage and complete the interactive activity.

▶ Choose the correct object.



### Challenge 4 - Properties of materials

Watch this video to learn about different properties of materials. Whilst watching the video, write down some notes on the properties that are mentioned (eg. rough, transparent etc.)

<https://www.youtube.com/watch?v=tAEQDu7juEg>



### Challenge 5 - Matching activity

See the different properties and their definitions below. Copy out each word and match it with its correct definition. The first one has been done for you.

<b><i>Absorbent</i></b>	<b><i>Able to soak up water</i></b>
<b>Ceramic</b>	The feel of a material
<b>Concrete</b>	A hard-transparent material made from sand that is used for window panes
<b>Cotton</b>	A material made of clay or mud baked in an oven or kiln
<b>Elastic</b>	A material made from woven threads and used for clothes, furniture covers, towels and curtains
<b>Fabric</b>	A strong shiny material that comes from rocks in the ground
<b>Flexible</b>	A light fabric made from a plant that grows in warm countries
<b>Glass</b>	Anything that can be used to make different objects
<b>Material</b>	Reflects light well and appears bright
<b>Metal</b>	A mixture of cement, gravel and sand that sets hard and is used to make bridges, buildings and paths
<b>Plastic</b>	Can be pulled out longer or wider without breaking
<b>Shiny</b>	Can bend easily without breaking
<b>Stretchy</b>	A strong, light material that is made in factories with chemicals
<b>Texture</b>	Regains its original shape after being stretched

### Challenge 6 - Play this quiz about materials and their properties

<https://www.educationquizzes.com/ks2/science/properties-of-materials/>