



Year 5 – The Science of States – 2 half terms

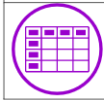
Prior Learning: Children should be able to identify solids, liquids or gases and should know that some materials change state when they are heated or cooled

Concept: Materials

In this unit we will continue to learn about the properties of various materials. We will also learn about reactions between two materials which form a new material.



Working scientifically:



Gather and record results



Make a prediction (KS2)



Interpret results
• answer the question

Compare and group everyday materials on the basis of their properties- electrical conductivity

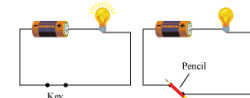
During this lesson we will investigate the electrical conductivity of more everyday materials. We will use electrical circuits for our conductivity testing



Gather and record results



Make a prediction (KS2)



Key is a good conductor

Wood is a bad conductor

Irreversible changes

During this lesson we will investigate adding two materials together which will form a new product. You have several different items to experiment with- what will you do?



Sometimes reactions between two different materials can produce a new material.



Interpret results
• answer the question

TWAL to compare and group everyday materials on the basis of their properties- thermal conductivity

During this lesson we will investigate the thermal conductivity of more everyday materials. How can we keep food in a lunchbox cool all day? What material would be best for this? Let's find out!



Make a prediction (KS2)

2. Compare and group everyday materials on the basis of their properties

Today we will learn some of the scientific vocabulary we will need to know about and we will then investigate everyday objects for four different properties, magnetism, flexibility, transparency and hardness.



Materials with specific properties have a specific use.



To compare the properties of everyday materials

Let's pull all our knowledge about properties of materials together! In this lesson you will create a fact file about a particular materials and explain why they are used for a particular purpose.



3. Compare and group everyday materials on the basis of their properties

In this lesson we will learn more about two chemists who created new materials, Spencer Silver and Ruth Benerito. Video:

<https://vimeo.com/237869713>

Then we will research one of the chemists and find out more about them and their discovery.

Words we will know!

