

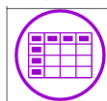
## Year 5 – The Science of States – 2 half terms MATERIALS SCIENCE SPRING 2

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



### 5. TWAL to compare and group everyday materials on the basis of their properties- electrical conductivity

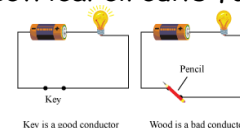
During this lesson we will investigate the electrical conductivity of more everyday materials. We will use electrical circuits for our conductivity testing.



Gather and record results



Make a prediction (KS2)



Key is a good conductor

Wood is a bad conductor

### 1. TWAL about changes to materials that are irreversible and where a new product is made

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

### 4. 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. TWAL to 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.



### 6. TWAL 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. TWAL to 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!

