

**Theme: 3**  
**Key Stage: 2**

# 'Cutting Edge' Technology

Dear Time Traveller,

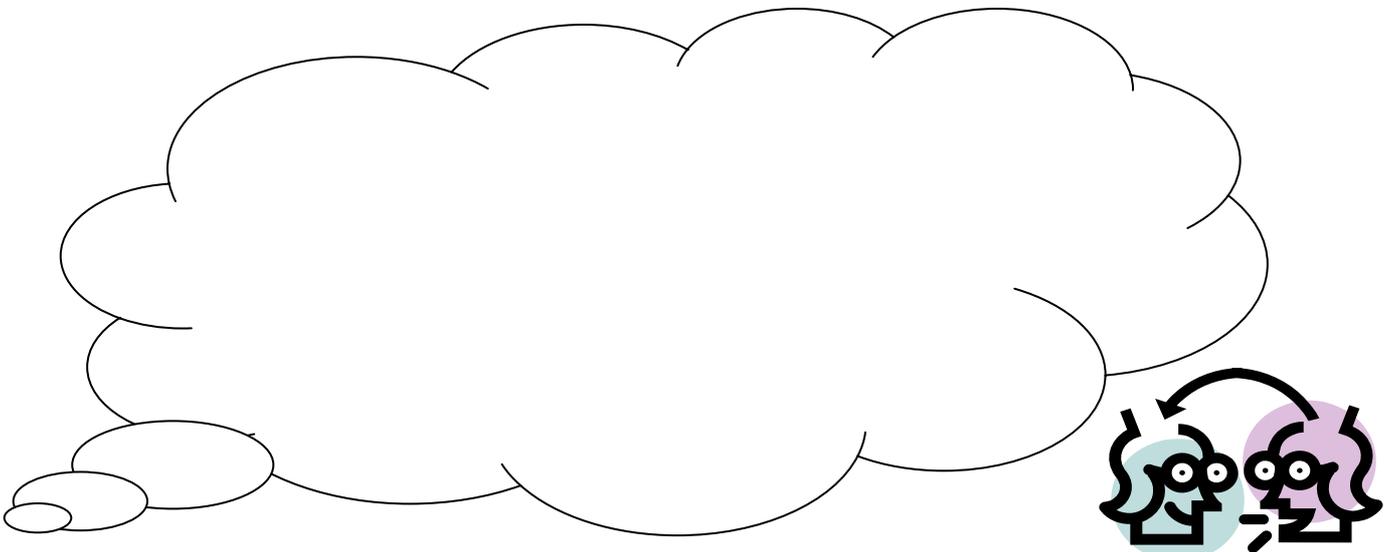


You have been chosen by your teacher to be transported back in time between the years:

**1890 up to 1920**

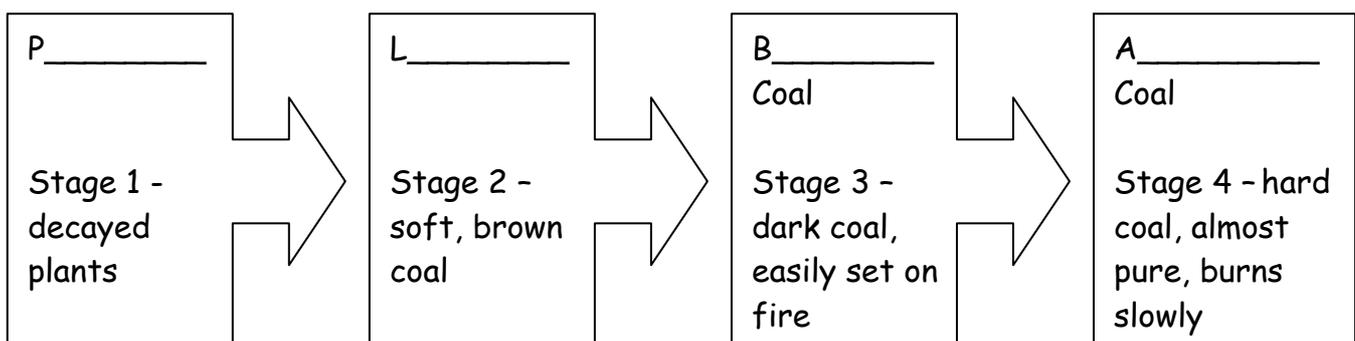
Your mission is to gather information. You will need to report back to your teacher when you return to the present time.

What is coal? Write down any ideas that your group has in the space below:



Using one of the touch-screens, select **Geology**. Then go to the section called **Iron and Coal** and look at the **Coal** animation. This will help you to see the different stages of how coal was formed underground over hundreds of millions of years.

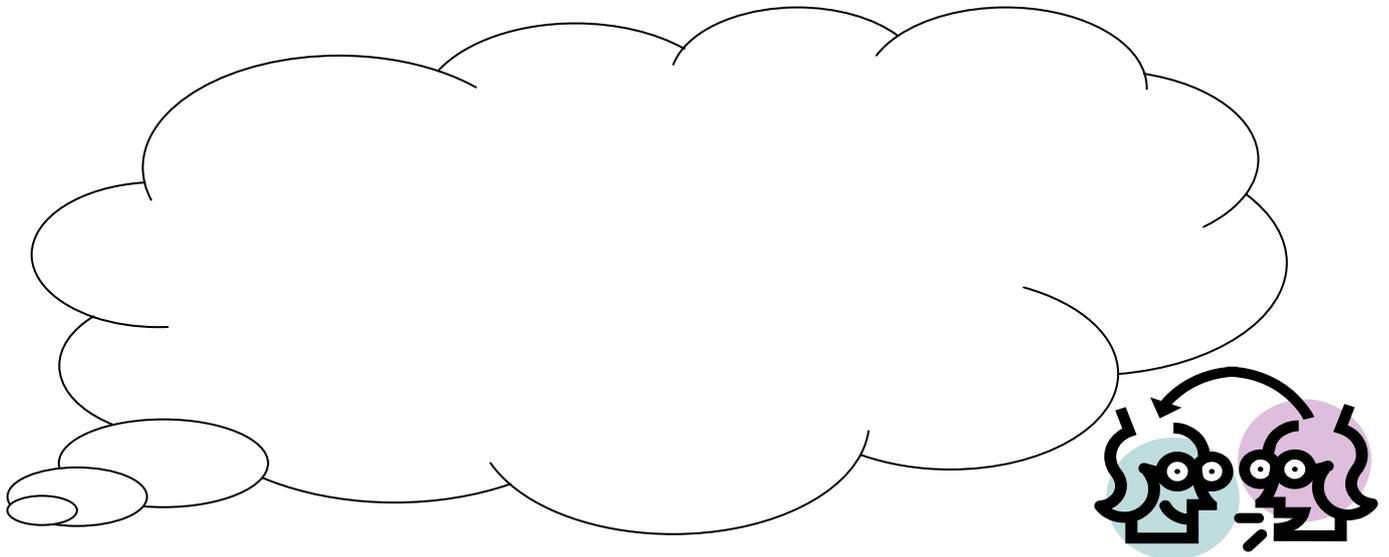
Fill in the names given to the materials at the 4 stages of how coal is formed:



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Look at the wall display called **King Coal Reigns**. It says that 'Coal was the lifeblood of the Industrial Revolution.' Why was coal so important and what was it used for?



On the wall display there is a quote by Lewis Browning. Copy out his words below:

Who are those \_\_\_\_\_

\_\_\_\_\_

Who is Lewis talking about? Why do you think he describes them in this way?

Look carefully at the 5 photographs in a line above Lewis Browning's quote. Read the captions for each of the photographs as well. Then answer the questions on the next page. Start from the left side and work your way to the right.

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In the photograph on the far left, what can you see which coal miners once used to help them to see in the dark?

How did miners dig the coal out of the ground? What tools or machines were used?

Moving to the right, in the second photograph there is a group of 3 coal miners. What is going on? Describe the objects they have and what they are used for.

Moving to the middle, when could most boys expect to start work in the coal mines?

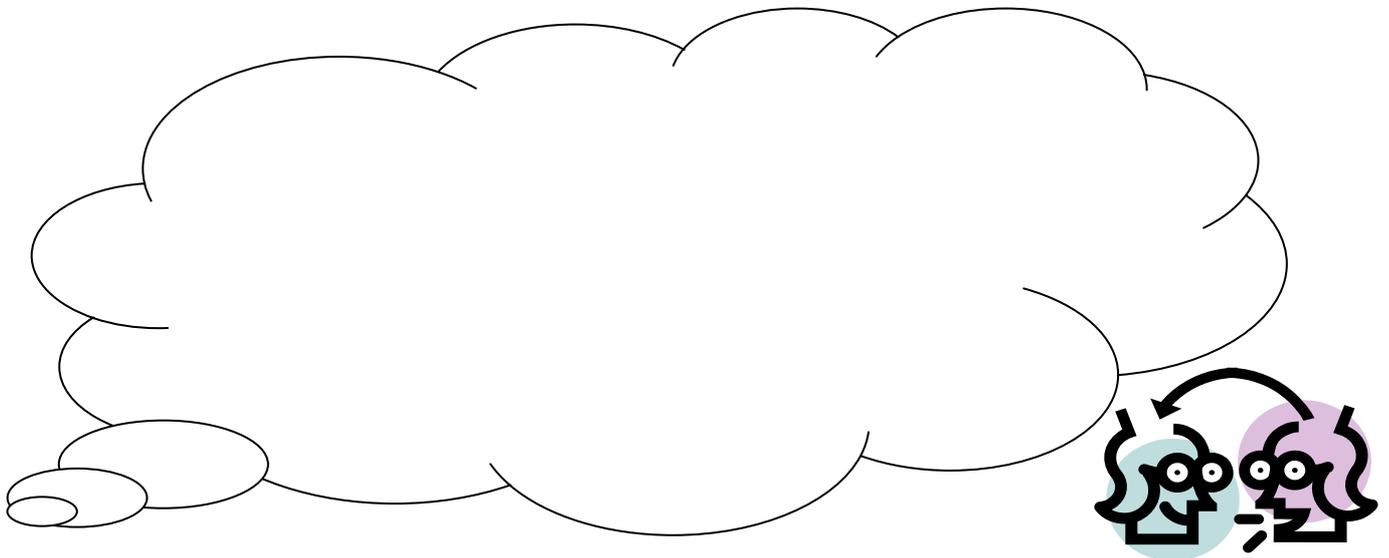
Moving right, what was used to move the drams or small trucks of coal underground?

Moving to the far right, what caused most deaths and injuries to coal miners at work?

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What do you think work was like for a coal miner in Blaenavon a hundred years ago?



Underneath the large wall display board, look at the timeline and find a photograph of 2 coal miners standing in front of a door. Using one of the touch-screens, select **Working Conditions**. Then go to the section called **Child Labour**. Choose option B and you will find the same photograph of the 2 coal miners. Complete the sentence below:

My name is \_\_\_\_\_ and I live in Blaenavon. Today is my first day at work in \_\_\_\_\_ colliery. I am \_\_\_\_\_ years of age. The year is \_\_\_\_\_.

Touch the thumbprints on the photograph and describe the things that this boy would have taken underground with him to work in the coal mine or colliery. Explain what each of these objects would have been used for.

1. Mandrel

2. Lamp

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3. Tommy box

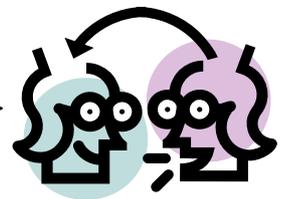
4. Jack

5. Yorks

6. Muffler

7. Cap

Do you think that coal mining was a good or a bad thing?  
Why do you think 13 year old boys would have chosen to become coal miners?  
What do you expect to do when you finish school?  
Discuss this with your group.



When you have finished, have a look at the timeline and displays around the room.  
Make notes on the back of this sheet about important dates linked to coal and coal mining which are listed for: 1841, 1842, 1851, 1855, 1872, 1890, 1908, 1913 and 1916.