

Task: Read through the mining electricity facts and underline the key information.



ELECTRICITY is sent underground using thick cables - thicker than your wrist!

The CABLES are very well insulated (protected). This is so that if they were to get damaged there is less risk of a spark, which could cause an explosion.

GATE END BOXES are used underground as plug sockets for heavy machinery.

Cap Lamp and Battery



A cap lamp is the light worn on a miner's helmet to help him see underground. It is powered by a battery worn around his waist.

Everybody who goes underground at the National Coal Mining Museum for England must wear one - including visitors!

Underground Conveyor Belt



Underground conveyor belts were used to carry the mined coal and sometimes men to the shaft bottom or to the surface in drift mines. They are powered by electricity, and plugged in underground to a gate end box.

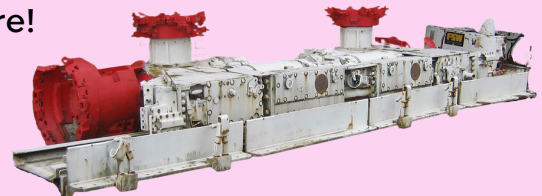
Electric Locomotive

Small trains would have been used to transport the workers, materials and coal underground. They are battery powered and last 8 hours! Mines usually had 2 or more of these trains, so one could be charging up while the other was in use.



Coal Cutting Machines Underground

These are big machines which cut the coal. This machine, called a trepanner acts like a giant apple corer, skewering into the coal to remove the core!



Coal Shearer



The drum of a coal shearer cuts the coal into small pieces. They are electrically powered and plugged in underground to a gate end box.

Dosco Road Header



This machine makes roadways underground. It works like a big corkscrew, drilling through the coal. It is electrically powered and plugged into a gate end box.

Electric Winder



Electricity powers the winding engine, which lifts miners and coal in and out of the coal mine. An emergency winder is available if it breaks down. It is operated on the surface by mains electricity.

Fan

The fan ventilates the mine by moving fresh air around the mine so that the miners can breathe. It is powered by electricity, and plugged in underground to a gate end box.

