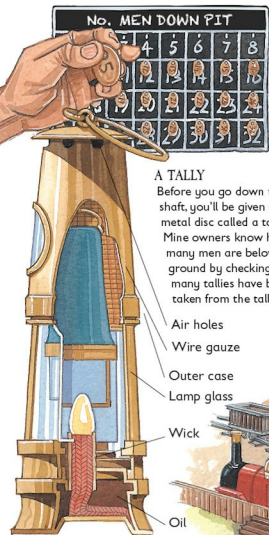


The pit! It's where you'll work

You are given:

The pits of the 1860s are different from the rough-and-ready mines of the olden days. Today's mines are thoroughly modern collieries, designed to extract as much coal from below ground as possible, sort it, and then send it on to wherever it's needed in the country. The pit never closes, and miners work in shifts. Some work in the daytime, others work at night. If you're on the day shift, you'll begin work at 6 o'clock in the morning.



A TALLY

Before you go down the shaft, you'll be given a metal disc called a tally. Mine owners know how many men are below ground by checking how many tallies have been taken from the tally board.

- Air holes
- Wire gauze
- Outer case
- Lamp glass
- Wick
- Oil

SAFETY LAMP

This lamp, or 'Davy', could save your life. It will warn you if there's a build-up of explosive fire-damp (methane gas).

THE PIT HEAP
is where mine waste is dumped. It's a mixture of slack (small coal) and dirt (pieces of stone and shale).

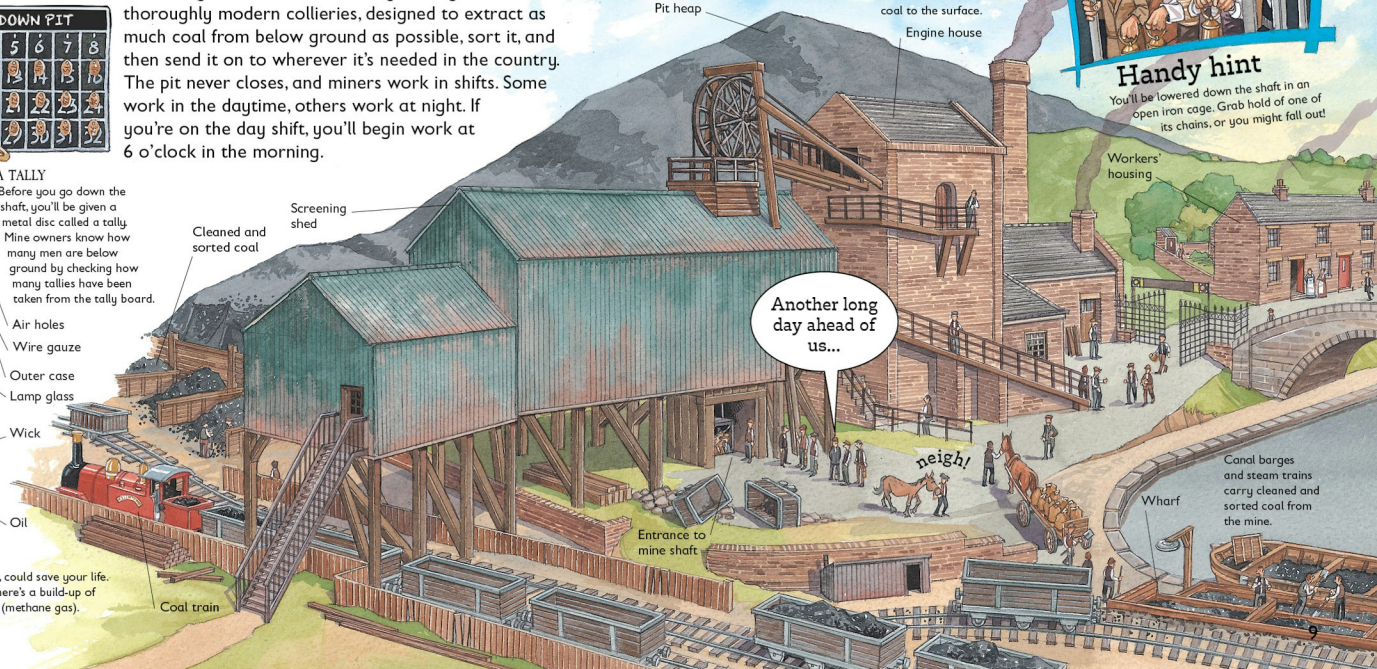
THE SCREENING SHED
is where the coal is emptied when it has come up the shaft in wagons. It is then sorted.

THE ENGINE HOUSE
contains the winding engine that raises and lowers miners, ponies and equipment up and down the shaft. It also lifts coal to the surface.



Handy hint

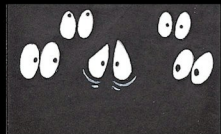
You'll be lowered down the shaft in an open iron cage. Grab hold of one of its chains, or you might fall out!



Another long day ahead of us...

Down the shaft and underground!

The descent:



DARK

You'll be in total darkness for the 30 seconds it takes the cage to reach the pit bottom.



NOISY

There will be lots of noise from the clanking of the cage and the unwinding of the steel cable.



WINDY

The cage falls around 27 metres every second, and you'll feel cold air rushing past you.



PAINFUL

Your eardrums will feel like they're going to burst, from the sudden change in air pressure.

More coal is needed every year. The trouble is, supplies near the surface are almost dug out, so this means colliers must dig deeper underground than ever before, in order to reach new seams of coal. At 500 metres deep, your mine is one of the deepest there is. As you enter the cage at the top of the shaft, try not to think about the long drop below you. Instead, make sure you've got your tally, your safety lamp and some food. Once the cage starts to fall, there's no going back!

Coal tub



I thought my ears were going to burst!

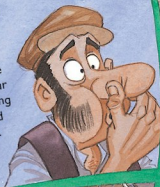
Pardon? I didn't hear that.

PIT BOTTOM

This is an open area at the bottom of the mine shaft. The cage goes back up the shaft with wagons, or 'tubs', of coal.

Handy hint

You can reduce the pain in your ears by pinching your nose and blowing hard.



Get to work! At the coalface

Your clothes:

A HAT

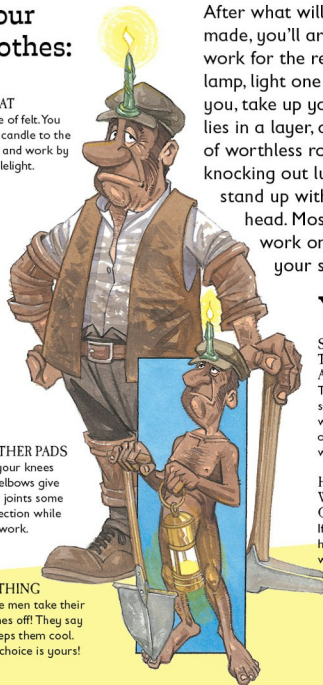
Made of felt. You fix a candle to the brim and work by candlelight.

LEATHER PADS

On your knees and elbows give your joints some protection while you work.

NOTHING

Some men take their clothes off! They say it keeps them cool. The choice is yours!



After what will seem like the longest walk you've ever made, you'll arrive at the coalface. This is where you'll work for the rest of your shift. Hang up your safety lamp, light one of the candles you've brought with you, take up your tools – and get to work! The coal lies in a layer, or seam, sandwiched between layers of worthless rock. It's your job to dig into the seam, knocking out lumps of coal. You'll be lucky if you can stand up without banging your head. Most of the time you'll work on your knees, or lying on your side. It's hot, dirty work.

Your tools:

SINGLET, TROUSERS AND BOOTS

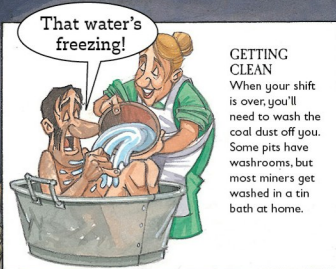
There are no special clothes to wear – just the ones you came to work in.

HAMMER, WEDGES AND CHISELS

If the seam is very hard, loosen it with these tools.

PICK AND SHOVEL

Use the pick to cut coal from the seam, and load it into the tubs with a shovel.



GETTING CLEAN

When your shift is over, you'll need to wash the coal dust off you. Some pits have washrooms, but most miners get washed in a tin bath at home.

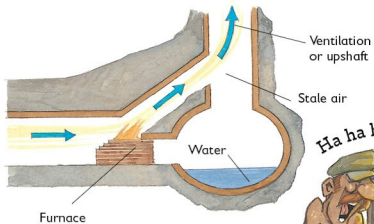
Handy hint

Count your candles. One burns in an hour so when eight have gone you know it's home time!



Take care! How to stay alive

Luckily for you, coal mining is safer work than it was a few years ago. One of the main improvements came in 1862, when a law was passed which said all pits in Britain had to have a second shaft connected to the first. The owners of your colliery have obeyed the law, and a second shaft has been sunk. Get to know Shaft Number 2 – it could save your life. The new shaft is the pit's escape shaft. If an accident happens while you're below ground, and you can't use the main shaft, you'll use this one to return to the surface. It's also the pit's ventilation shaft, taking away foul air. Without it you might be breathing poisonous choke-damp (carbon dioxide).



AIR TO BREATHE

A furnace at the base of the ventilation shaft creates a vacuum. As it burns, it draws fresh air down the main shaft (the downshaft). Clean air circulates through the mine's tunnels and returns up the ventilation shaft (the upshaft) as stale air.



Handy hint



If your safety lamp goes out, re-light it at once. If you see the gauze around it glowing, and the flame getting brighter, that's telling you there's an explosive gas in the air and it's time to leave!

The rules:



NO SMOKING
If you're caught smoking or with matches underground, you'll be fined. You could lose your job.



USE THE PROPS
Be sure to use enough strong timber pit props to support the roof. If you don't, it might collapse.



AGE LIMIT
Don't lie about your age in order to get work, or you'll be fined according to the law. Remember, boys under 10 can't go down mines any more.