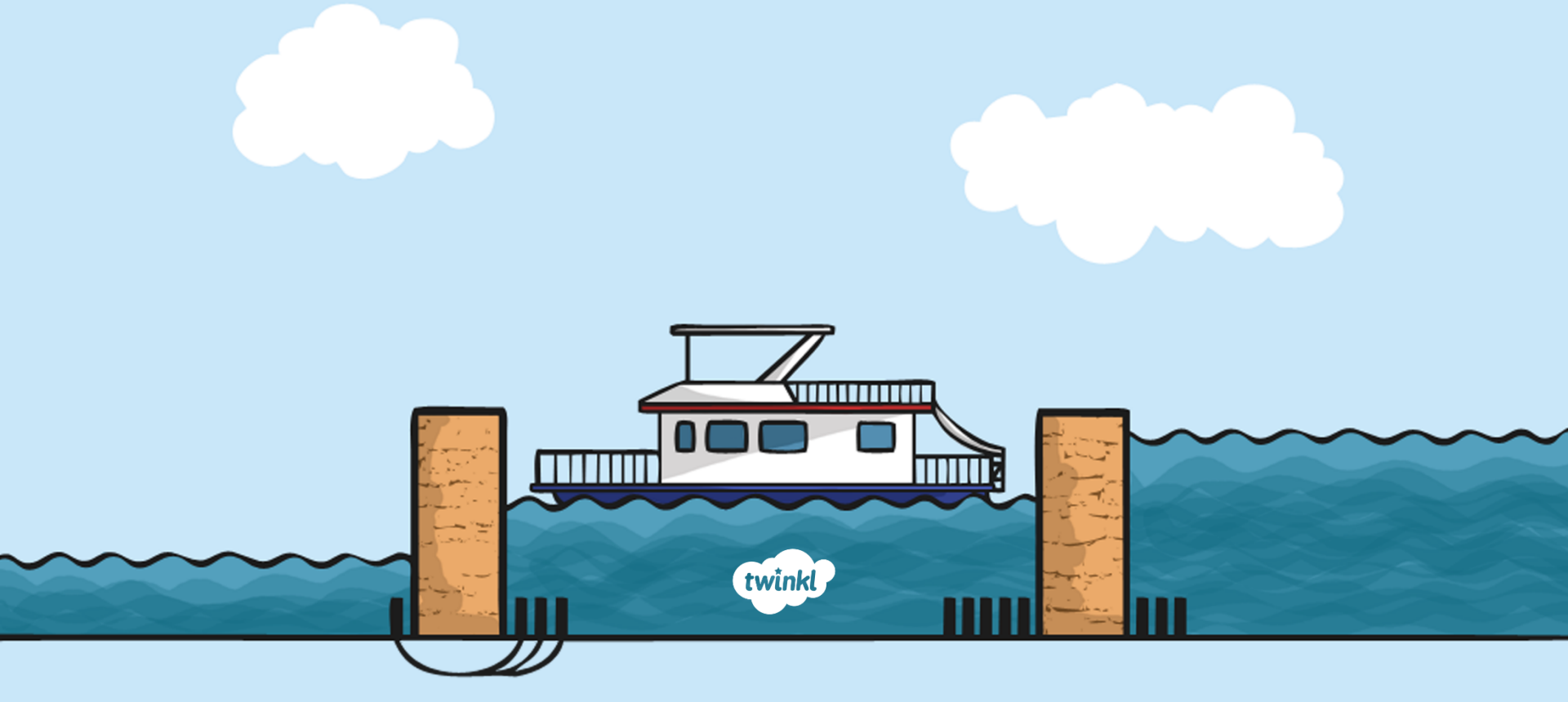
All About Canals



All About Canals

- What do you know about canals?
- How are they made?
- What are they used for?
- What is the longest canal?
- How deep are canals?

All About Canals

- What is the difference between a canal and a river?

Rivers

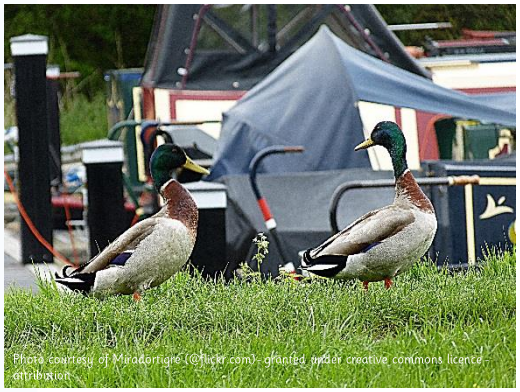
- A river is a naturally formed body of water.
- Rivers are usually much deeper than canals.

Canals

- A canal is a manmade waterway.
- Canals are shallower and narrower.

Why were canals built?

For the wildlife?



For people to enjoy?

To go on boat trips?

Canals are famous for these reasons today but they were actually built to transport items around the country. Most canals were built during the Victorian period and the Industrial Revolution. The Canals were the "motorways" of the 18th century.

Can you think of any items which canals would have transported?

Canal Freight

Coal

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Wool

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Stone

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Chalk

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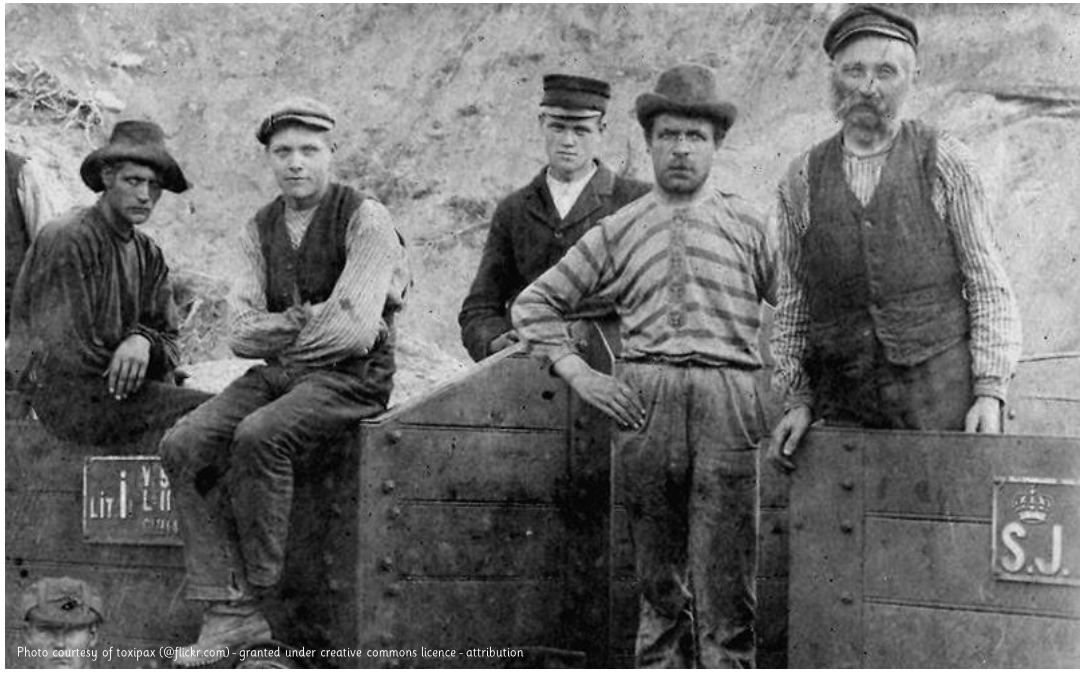
Key word: Freight – Goods carried by a vessel or vehicle.

Who Built Canals?

Navigations and navigators

When commercial canals began to be built in the 1700s, the men who built them were known as navigators. Over time this was shortened to 'navvies' and that's what we still call them today. It was hard physical work so navvies needed to be tough, strong men.



Who Built Canals?

Moving the earth

Hundreds of thousands of navvies created the canal networks we know today. They moved enormous amounts of earth, cutting out channels for the canals and creating huge embankments. It was a monumental task, achieved with pretty basic tools of shovels, picks and wheelbarrows. They used gunpowder packed into hand-drilled holes to blast solid rock, and then moved the rubble and earth with wheelbarrows.

Building techniques

The navvies sometimes used barrow runs, with donkeys, mules or horses pulling laden wheelbarrows up the slope of the embankment, with a man holding the wheelbarrow handles to guide it up the slope. The navvies also used scaffolding to help them get earth up to the higher levels of the embankment, when they were making the top layers. Most of the materials for the embankment would have been tipped from the top.

Canal Boats

Canal boats are also called barges or narrow boats.
The key distinguishing feature of a narrow boat is the width of it, this must be less than 2.13 m to navigate British narrow canals. The maximum length is about 22 m, which matches the length of the shortest locks on the system.

How were boats powered before engines were invented?

The narrow boats were hauled along by giant shire horses who plodded along the towpaths at the side of the canals, towing their laden narrow boats behind them.

The boat is steered from the back.

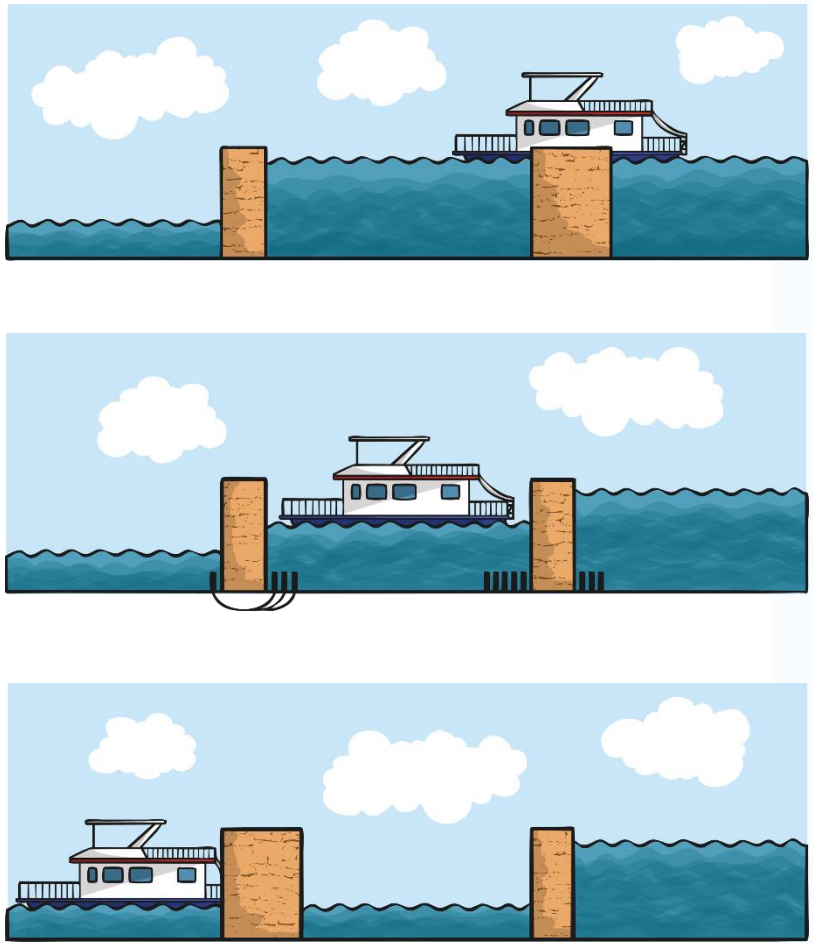
It was important to look after your horse and care for it well.

A rope was fastened to the boat so a horse could pull it along.

The path next to a canal is called a towpath for this reason!

How do Canals Work?

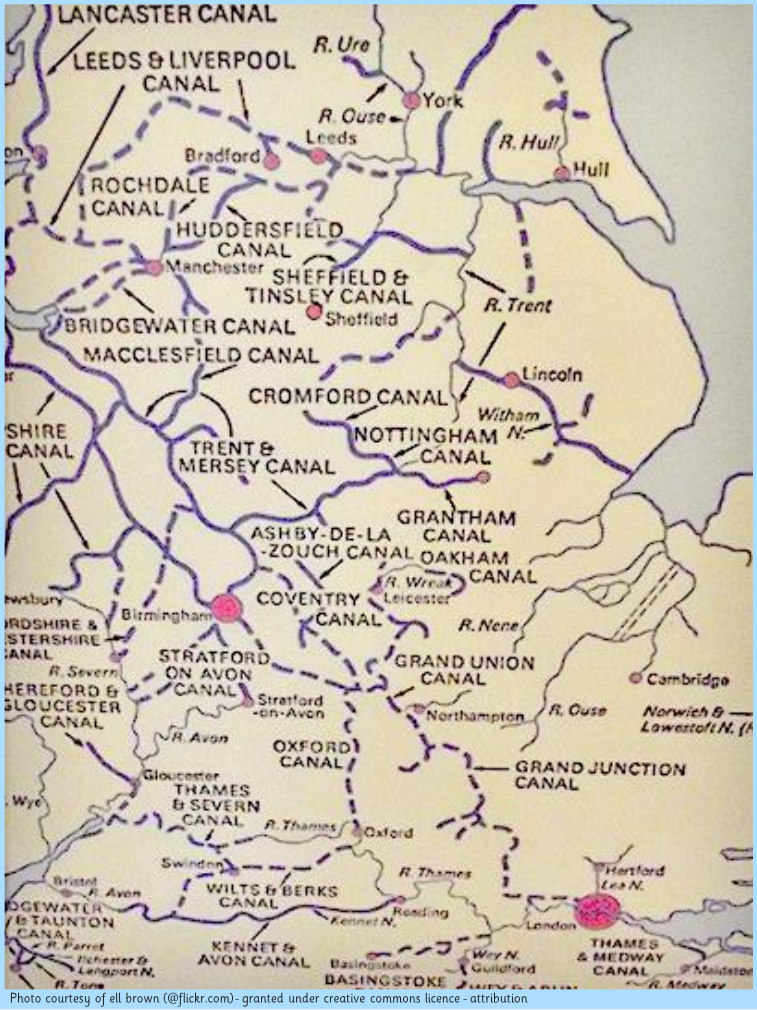
- Locks are the way in which canal boats travel up and down hills on the canal.
- A boat comes to the top of the lock and wants to go to the downstream side.
- The gates on the upstream side of the lock can easily be swung open because the water inside the lock is the same elevation as the water on the downstream side. So the lock staff turn the cranks that open the gates to let the boat in.
- The boat floats into the lock.
- Now the upper gate is closed.
- Valves are opened on the downstream side of the lock which lets water out of the lock.
- As the water drains, the boat floats down.
- When the water in the lock matches the water level of the downstream water, the gates can be opened and the boat can move out.



Watch this video to learn more about canals.

Canals of the United Kingdom

Here is a map of some of the canals built in the north of England.



Canals Today

Do you think that canals are used in the same way today?