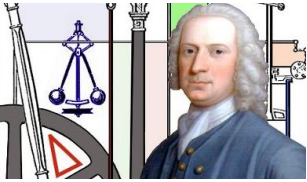


History Activity 1: Reading Comprehension

Watch the videos and/or read the info sheet to answer the questions.



1. Before steam engines existed, how were factories and mills powered?
2. What was the name of the inventor who designed the first steam engine in 1698? When was the second (more useful) one invented and by whom?
3. Who invented an even better steam engine – one that was used all over England from early 1800 and had a big impact impact?
5. What were steam engines used for? What did they power?

Info sheets (See full versions attached.)



Inventions: Steam Engines



Steam engines were a very important invention of the



Industrial Revolution. Before steam engines were invented, people



used to do jobs by hand and factories and mills were

Or

(WC 27.4.20) **History - Industrial Revolution** |

▲ **Invention of the Steam Engine** (info sheet)

The steam engine was one of the most important inventions of the Industrial Revolution and perhaps one of the most important inventions in human history. Steam engines were used in all sorts of applications including factories, mines, locomotives, and steamboats.

How does the steam engine work?

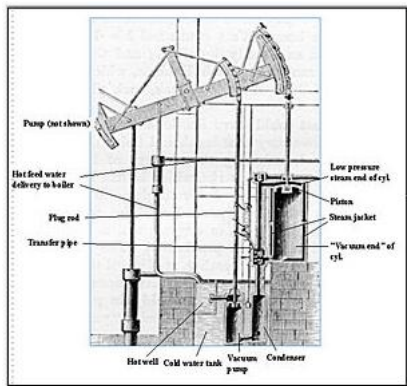
Steam engines use hot steam from boiling water to drive a piston (or pistons) back and forth. The movement of the piston was then used to power a machine or turn a wheel. To create the steam, most steam engines heated the water by burning coal.

Why was it important?

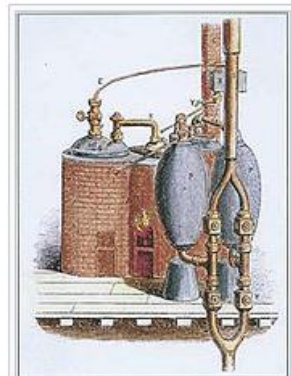
The steam engine helped to power the Industrial Revolution. Before steam power, most factories and mills were powered by water, wind, horse, or man. Water was a good source of power, but factories had to be located near a river. Both water and wind power could be unreliable as sometimes rivers could dry up during a drought or freeze during the winter and wind didn't always blow.

History Activity 2: Timeline

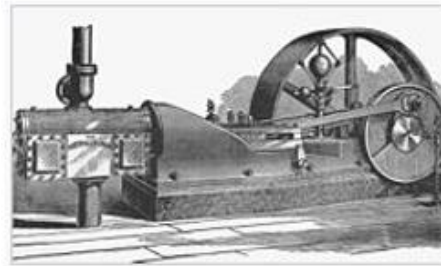
Cut out the images of the steam engines. Sort and stick them on the timeline below in **chronological order**.



James Watt's early engine 1774



The 1698 Savery Engine



Porter - Allen high speed engine 1862

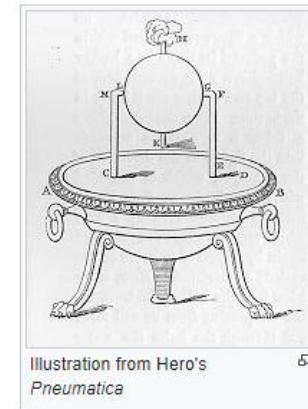
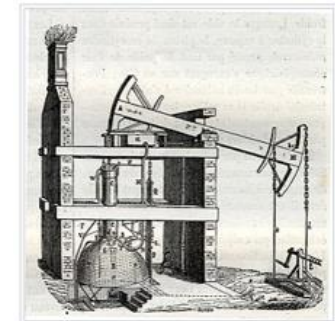


Illustration from Hero's
Pneumatics

1st Century AD, Roman Egypt



Thomas Newcomen 'atmospheric'
steam engine 1712



History activity 3: Design a Coat of Arms

Watch the videos and/or read the information about James watt. Find out as much as you can about him and his inventions. Design a new coat of arms to represent him and his



James Watt 2019

Family Values

James Watt's son, also called James, did everything he could to honour his father after his death. He created an impressive memorial, had a book written about him and even designed a family crest that reflected the values of his father.

Each part of the crest has a symbolic meaning:

The elephant is for **strength**

The snakes round a staff are for **wisdom**

The club is for **special enterprise**

The motto translates to:



Consider the values that matter to you and design your own coat of arms.

James Watt 2019 Watt in the World Learning Resources

Coat of Arms image courtesy of Birmingham City Council, Library of Birmingham



Coat of Arms Activity



Design your coat of arms here: