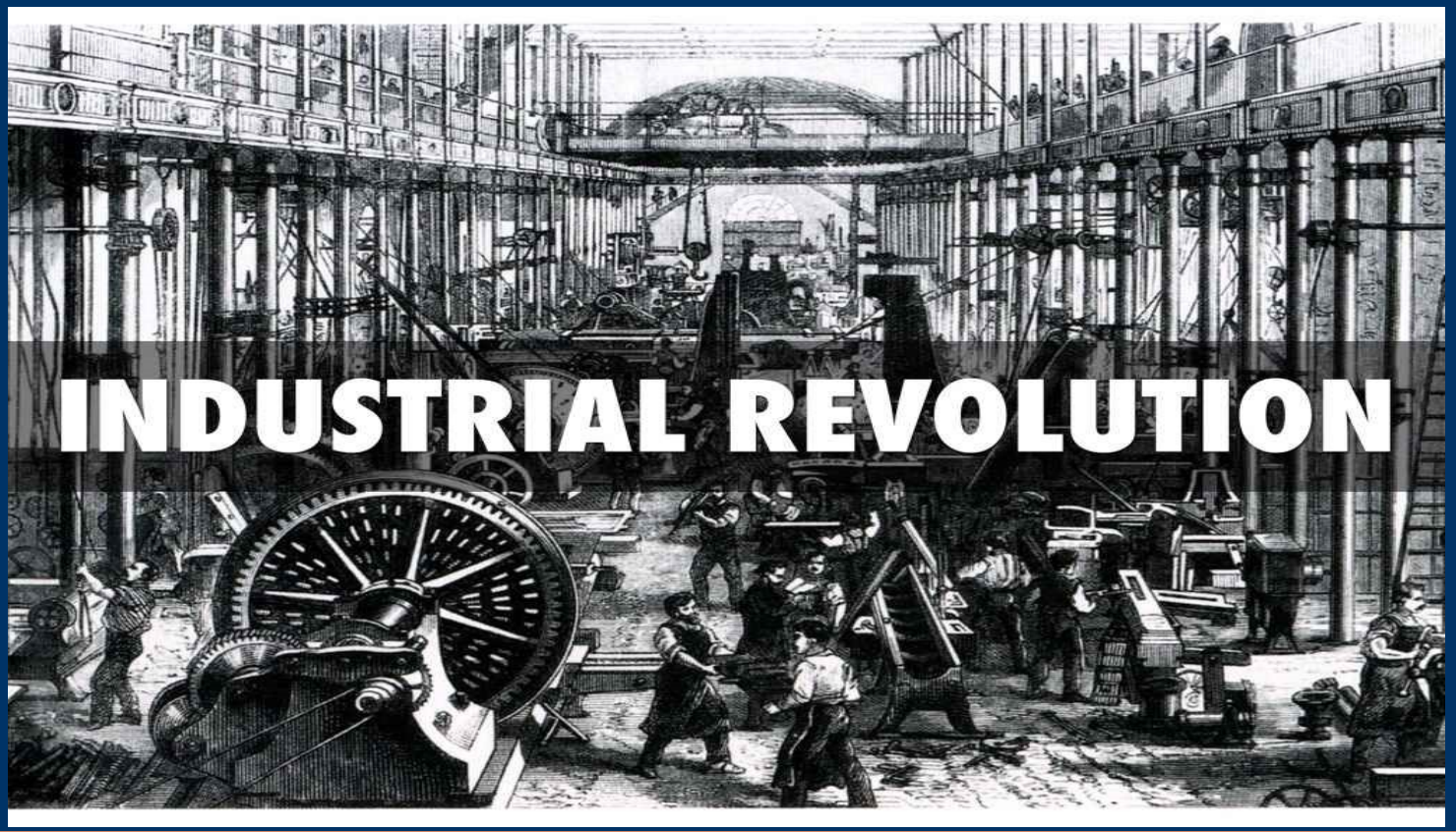
History

- During this unit, you'll be learning about the industrial revolution. It was a time of great change in the world. There are 4 tasks. You can complete them in any order, in any time that suits you over the next 2 weeks.



Industrial Revolution: Task One

- The Industrial Revolution was a time when the manufacturing of goods moved from small countryside shops and homes to large factories. This shift brought about changes in culture as people moved from rural country areas to big cities in order to work. The Industrial Revolution began in Great Britain in the late 1700s.

  Watch the clip below and list 5 new things you learned:
  https://www.youtube.com/watch?v=Xh_Lk7kDrUI

Industrial Revolution
Task One continued...

- Manchester, Birmingham, Bradford, Leeds, Newcastle, Stoke, Manchester, Derby, Middlesbrough. These were all major UK cities that grew due to the industrial revolution.

1. Find each of these cities on a map (your mapbook will help!)
2. What do you notice about their locations in general?

Inventions: Task two

- Research one of the following inventions of the industrial revolution:
  1. Spinning Jenny
  2. Power Loom
  3. Cotton Gin

- Write about your chosen invention under the following headings:
  1. Who invented it?
  2. What purpose did it serve?
  3. What changes happened when it was introduced?

James Watt's Steam Engine: Task three

- The Watt steam engine was an early steam engine and was one of the driving forces of the industrial revolution. James Watt developed the design from 1763 to 1775. Watt's design saved much more fuel compared with earlier designs.

- Have a look at how Watt's steam engine worked: https://www.youtube.com/watch?v=xnClSss50pI
- Now have a look at a glass model of one! https://www.youtube.com/watch?v=73txXT21aZU

- Q. How do you think this engine changed the world?

James Watt's Steam Engine: Task three continued....

- An engine's power is measured in horsepower. Every time you see a car commercial/programme, you hear people talk about how much horsepower a car has. Well, how much power does that mean? How does our power compare to that of a typical horse? During the early days of the Industrial Revolution in England, James Watt needed a way to explain to factory owners why his new invention the steam engine was better than the horses they used to power machines. To do so, he calculated the amount of work one horse could do in a minute and coined the term “horsepower”.

James Watt's Steam Engine: Task three continued....

Today, we are going to figure out what **your** horsepower is! To complete this experiment, you will need a helping hand. We will be using stairs or a step for this activity. To measure your horsepower, you will be stepping up and down 1 step for 1 minute. Your partner will count how many times you stepped up a step (1) then back down (2) with BOTH FEET, then back up again (3) and down again (4) etc...

Use the equation below to determine your horsepower:
(the number of steps I took X my weight in pounds) divided by 33,000 = _____

James Watt's Steam Engine: Task three continued....

After completing your horsepower experiment answer the following questions:

1. Were you surprised by your horsepower? Did you expect it to be higher or lower? Explain.

2. How long do you think you could sustain that horsepower?

3. How much horsepower do you think elite athletes can reach?

4. Why do you think Watt used horses to measure his machines power?

5. Design a newspaper ad in the space below for James Watt's steam engine. Consider what aspects of his invention you want to highlight and what would make for an effective advertisement.

James Watt's Steam Engine: Task three continued....

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James Watt's Steam Engine: Task three answers....

1. Were you surprised by your horsepower? Did you expect it to be higher or lower? Explain.
Most of you will end up with horsepower around 1 or less and are usually surprised at how low it is.

2. How long do you think you could sustain that horsepower?
Most students would only be able to sustain that power for a few short minutes.

3. How much horsepower do you think elite athletes can reach?
Elite athletes can reach about 2.5 horsepower for short periods or around 1.5 for longer sustained events like marathons.

4. Why do you think Watt used horses to measure his machines power?
Watt used horsepower because he wanted to put his invention's power in a way that was easily understood by factory owners.

Child Labour: Task four

- Many children entered the workforce during the industrial revolution.
- Can you think of any reasons why?
- Have a look at the following video. Were any of your reasons mentioned?
  https://www.youtube.com/watch?v=Yh1HS5SWQdw

  Q1. Make a list of what life was like for a child during industrial revolution
  Q2. Make one for yourself now in isolation!
  Q3. Are there any comparisons????