YEAR 3/4~ OUR LEARNING
SPRING TERM 2 WEEK 4

This week, year 3/4 have been looking at the invention of reinforced concrete. We thought about its uses and we tried to make our own strong structure, using paper. Our brief was that it had to be able to support a book, at a height, above the table. We discovered that curves and triangles are very strong shapes:

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Lesson four: The invention of reinforced concrete

In 1853, WB Wilkinson, who was a plasterer, from Newcastle, invented extra strong concrete. He did this by layering concrete and steel together. It can be used to make bridges, roads and very tall buildings.

We made structure out of newspaper to support a book. These were successful:

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We have also really enjoyed publishing our nonfiction books about 'How a bike works'. We have been very impressed with the finished results:

How does a bike work?

Introduction

Bikes are machines that lots of people around the world use. They are very useful and helpful means of transport as well as somesthing fun to do!

They are also an excellent way of staying fit and healthy. It also builds muscle strength and aerobic fitness.

Contents

When a rider goes on a bike they would put there hand on the handlebars and grip them. The handlebars can be used to aid balance and steer the bike.

The handlebars are fastened to a metal column that is attached to the front wheel. The cycler can turn left or right by

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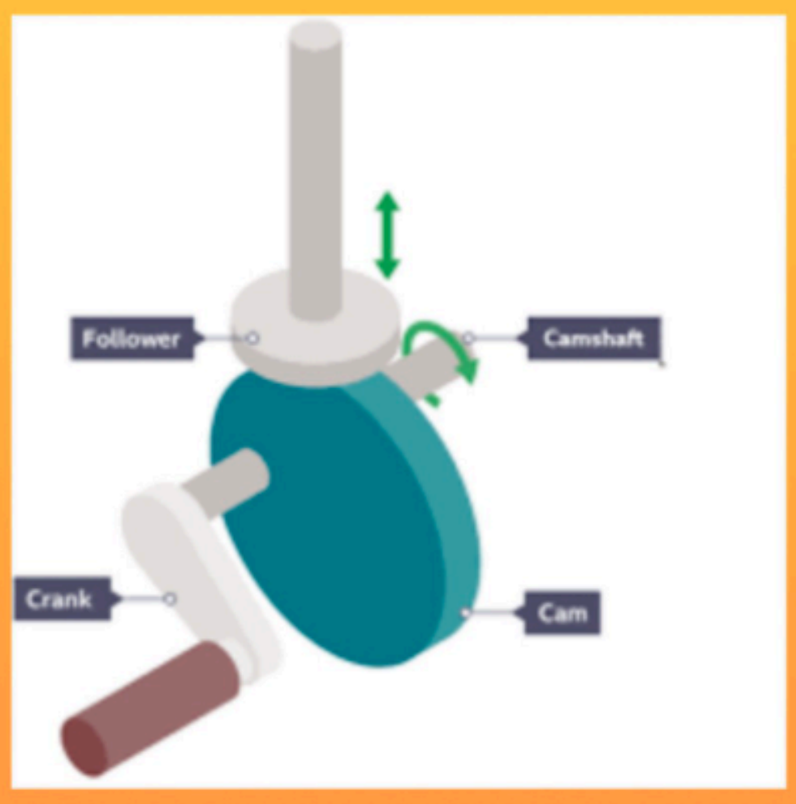
Pedals

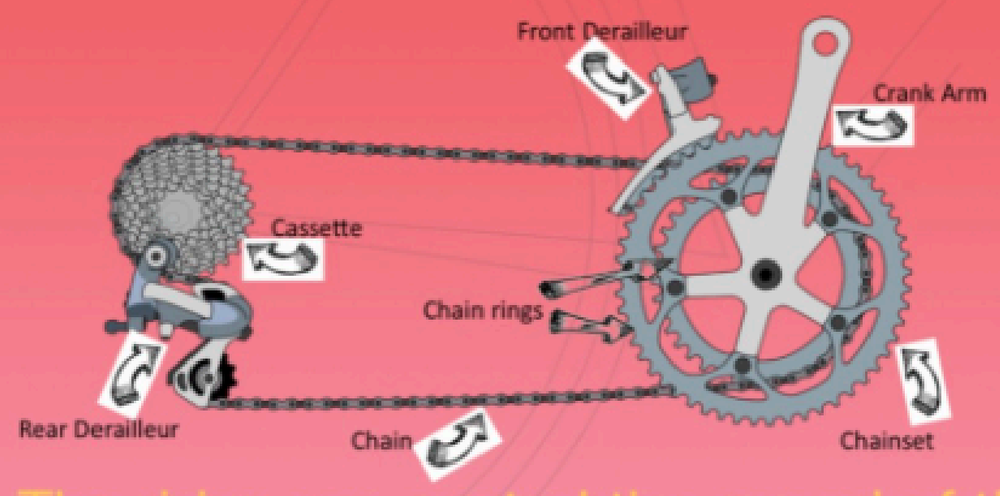


After you put your hands on the handlebars you put your feet on the pedals you push down alternately with each foot. The pedals are fastened to a large metal cog. As they would push the cog would rotate.

Chain

Around this large cog lays a metal chain. A chain is made from links that fit in the gap of the cog. This metal loop of links also known as a chain is attached to a smaller cog which is on the back wheel. As the small cog turns, this creates a motion by the back wheel spinning round quickly.

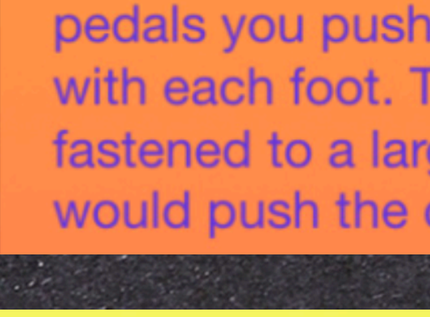
Chain Drive



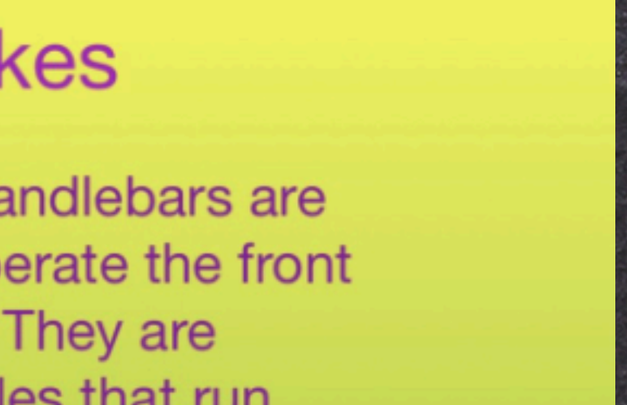
The rider can control the speed of the bike by pedalling faster or slower.

Brakes

Attached to the handlebars are two levers that operate the front and back brakes. They are connected to cables that run down to some brake pads the brakes also help maintain the speed of the bike.



When the levers are squeezed, the brake pads press against the wheels and due to friction it slows the motion of the bike.



Gears

Gears are a useful part on the bike. They are used to control the speed of the bike. Lower gears, are helpful for going up as it makes pedalling easier higher gears are often used for going down so you dont pedal to fast.