

The Force of Gravity

Amazing Fact

International Space Station astronauts return from missions having aged slightly less than they would have if they had remained on Earth!

Challenge 1

Space has an effect on nearly every part of the human body because there is less gravity to create the conditions we experience living on Earth.

Gravity is a type of force, which attracts a body towards the centre of the Earth. A force is a push or pull acting upon an object.

Other forces include:

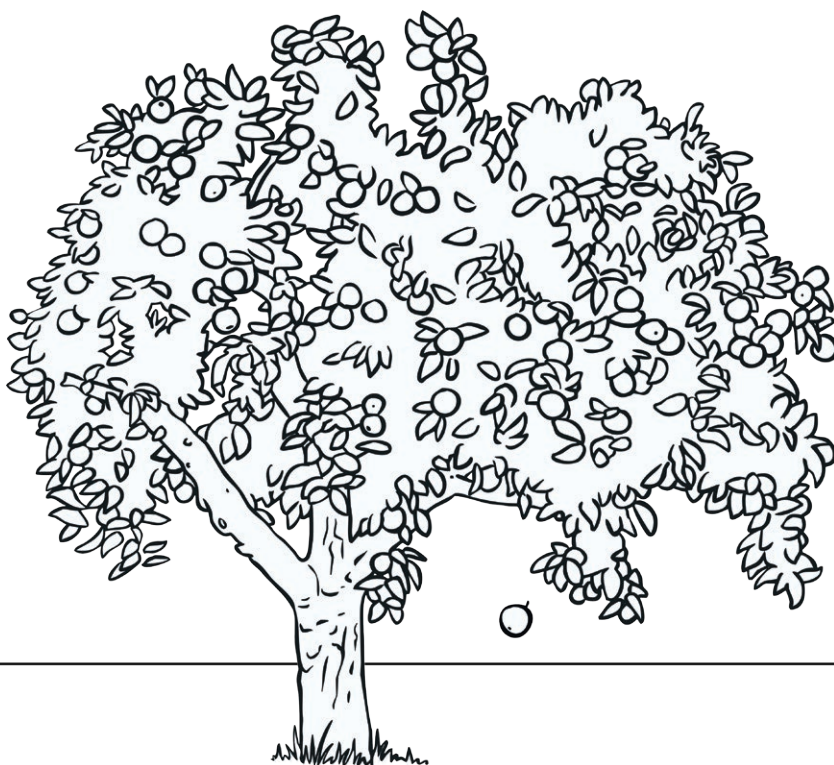
- **Air resistance** – the force of air pushing against a moving object.
- **Friction** - this resistance between two surfaces that are in contact with each other.

Look carefully at the illustrations on the activity sheet provided and use arrows to identify each example of the 3 forces.

Challenge 2

Using the Internet or non-fiction books, can you find out which famous scientist discovered the force of gravity?

How did they discover it?

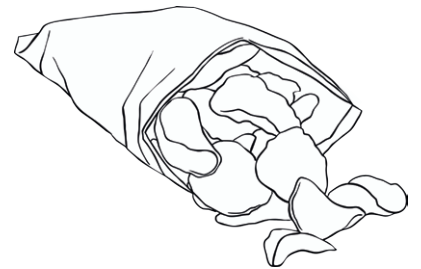
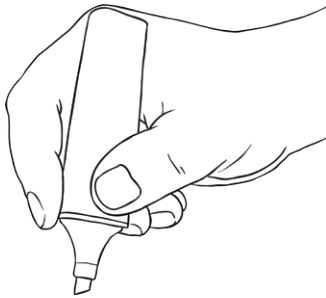
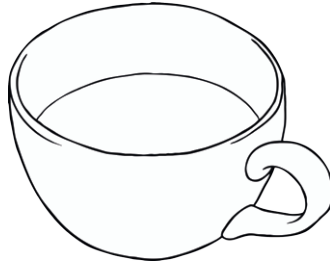


You could also try to find out:

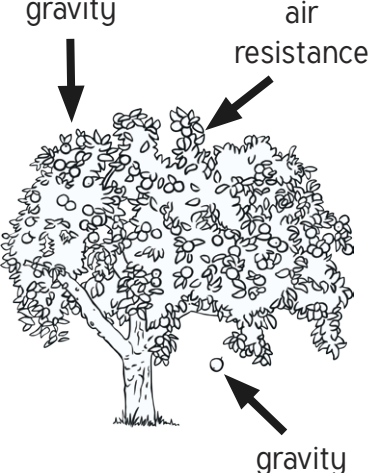
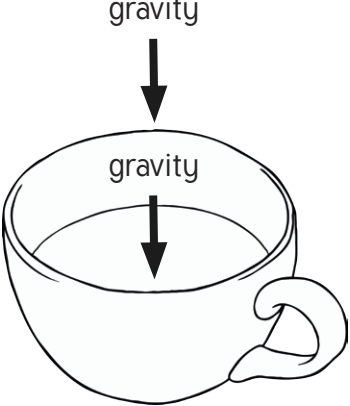
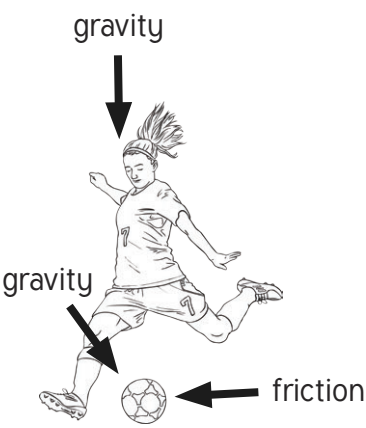
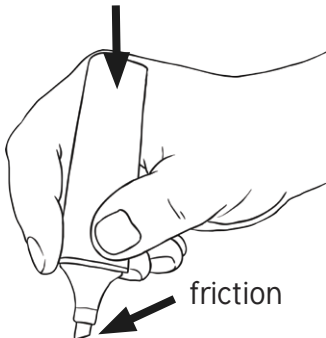

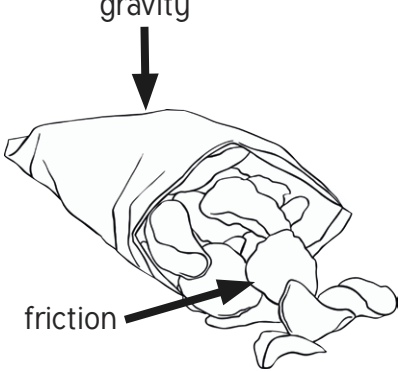
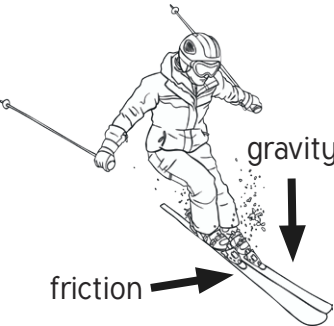
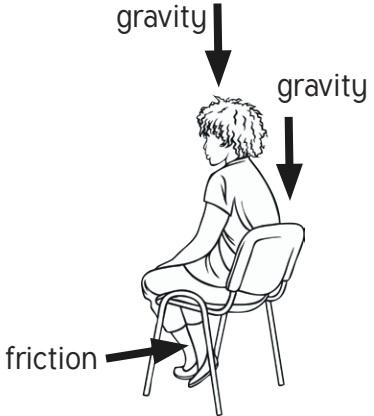
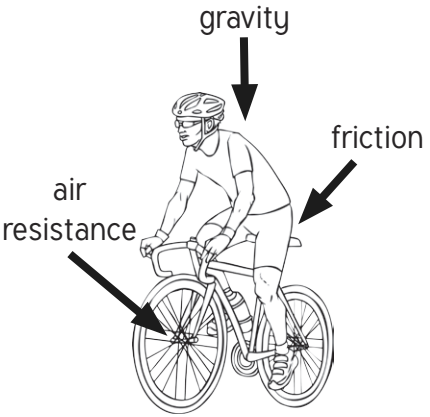
- how this can possibly be true;
- what would happen if there were twins, and one stayed on Earth while the other went off on a high speed space mission and then returned to Earth.

The Force of Gravity

Draw an arrow to indicate the forces present in each image and label them.



The Force of Gravity Answers

 <p>gravity</p> <p>air resistance</p> <p>gravity</p>	 <p>gravity</p> <p>gravity</p>	 <p>gravity</p> <p>gravity</p> <p>friction</p>
 <p>gravity</p> <p>friction</p>	 <p>gravity</p>	 <p>gravity</p> <p>friction</p>
 <p>gravity</p> <p>friction</p>	 <p>gravity</p> <p>gravity</p> <p>friction</p>	 <p>gravity</p> <p>friction</p> <p>air resistance</p>