

Science lesson 2

Can I explain why unsupported things fall to Earth?

Fast Five - answers are on the next slide!

- 1) What is friction?
- 2) What are the three main functions of the skeleton?
- 3) Describe the process of the digestive system.
- 4) Why is exercising good for the human body?
- 5) What is a way that we can have a healthy lifestyle?

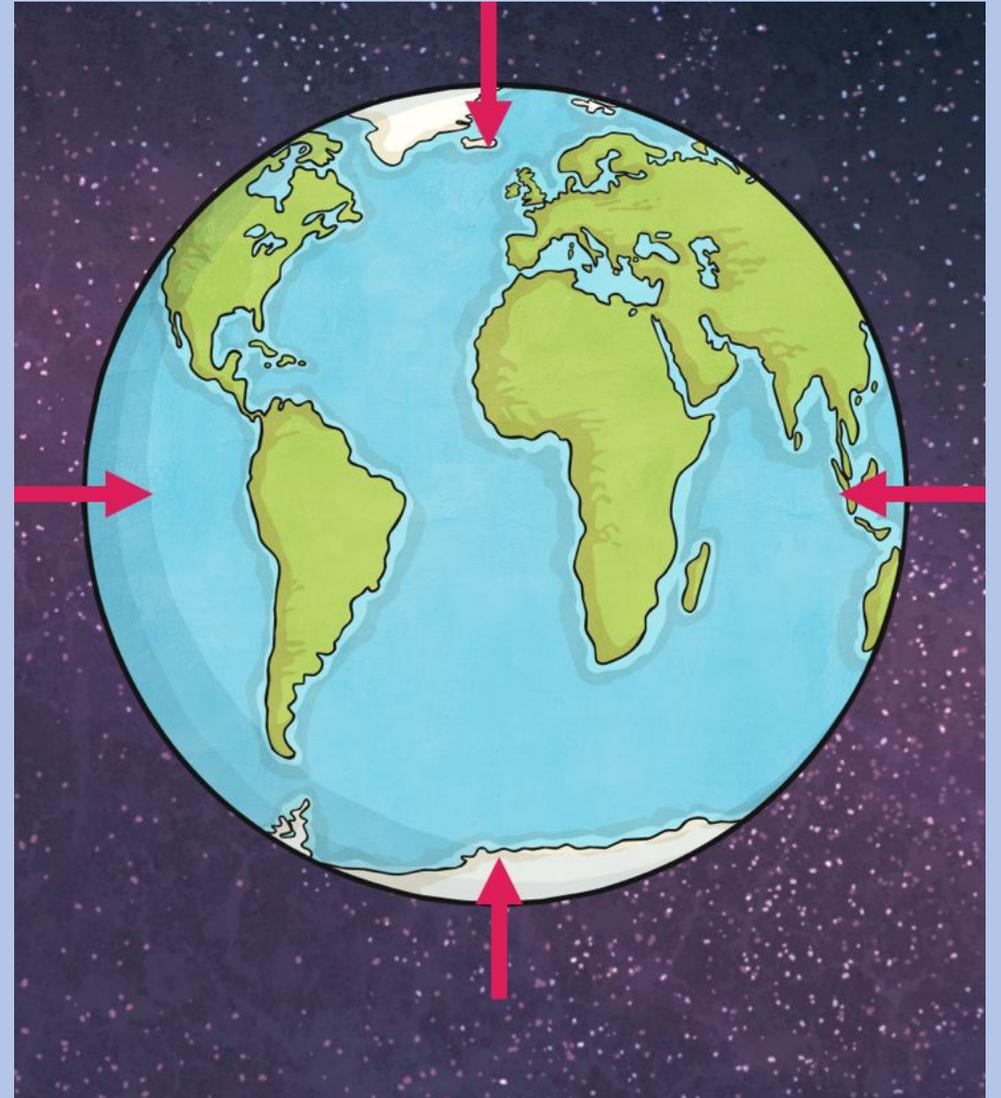
Fast Five - Answers

- 1) What is friction? **A force between two different surfaces that slide against each other.**
- 2) What are the three main functions of the skeleton? **Protection, support and movement.**
- 3) Describe the process of the digestive system. **Chew food in the mouth, swallow it, the food goes down the oesophagus into the stomach, the stomach digests the food more so, and it then goes to the small intestine. The nutrients from the food are then absorbed into the blood, the waste material goes to the large intestines, then to the rectum, and then out of our body.**
- 4) Why is exercising good for the human body? **Keep us strong, healthy, healthy weight, improves our mood**
- 5) What is a way that we can have a healthy lifestyle? **Exercise frequently, eat a healthy and varied diet, sleep the recommended amount**

What is gravity?

Gravity is an invisible force that pulls everything towards the centre of the Earth.

Wherever you are on Earth, gravity will always pull unsupported objects to the ground.



Sir Isaac Newton



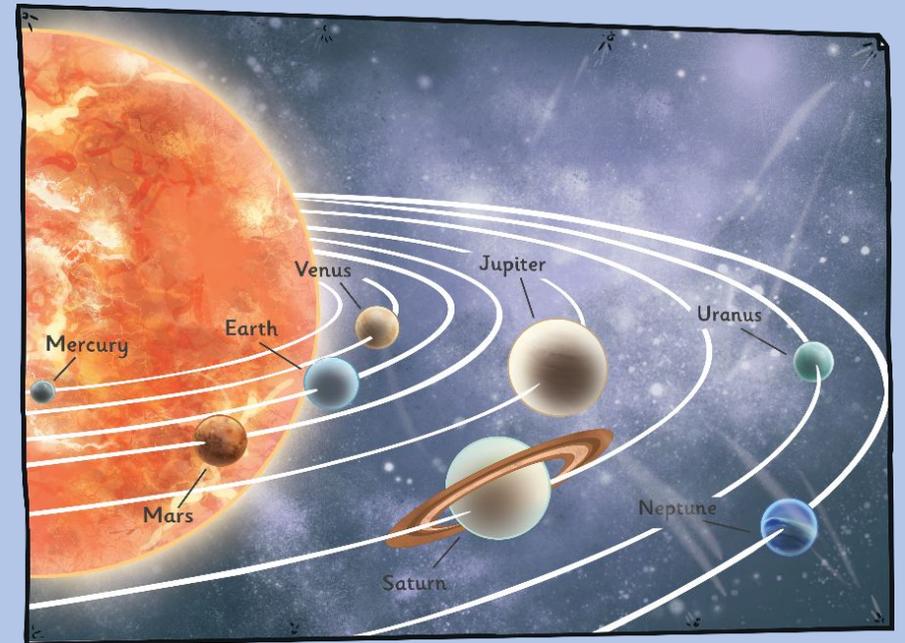
Sir Isaac Newton (1642 – 1727) discovered gravity. The legend has it that Isaac Newton was sitting underneath an apple tree, when an apple fell off and hit him on the head. This led him to question why that happens. It got him thinking and that's how he worked out that gravity exists.

Every object has gravity...an invisible force that pulls things towards its centre.

The bigger the object, the bigger the gravity.

The Sun is huge, so its gravity keeps the planets in our Solar System orbiting it.

Earth's Moon has its own gravity but it is smaller than Earth so Earth's gravity keeps the Moon in orbit around Earth.



Gravity and jumping

When we jump we forget that it's gravity making us fall back down to the ground.

On Earth, we are used to knowing what a jump feels like, but on the Moon the pull of gravity is much weaker so we fall back down to the ground much slower leading to the floating effect astronauts experience on the Moon.



On a planet with twice as much gravity as Earth you would find it hard to jump at all...not only that, your legs would have to be stronger just to hold you up!

Activity

- Read the text about gravity.
- Rewrite the sentences in your books and fill in the missing gaps.