

Gravity

Watch the video entitled *Gravity* and answer the questions below.

Q1 State the name of the scientist linked to gravity.

A1 Isaac Newton.

Q2 Outline the description of gravity that was given.

A2 Gravity is a force of attraction between two objects of mass.

Q3 How was gravity explained in terms of Earth?

A3 When you drop an object, the object and the Earth are attracted to each other. However, due to the fact that the Earth is moving at a very slow speed, the object falls to the ground.

Q4 Explain the reason why objects do not fall at the same rate on Earth.

A4 Another factor is affecting the rate at which the objects fall: the force of air resistance.

Q5 Describe how the bottles differed from each other.

A5 One bottle was completely full, while the other bottle had a small amount of liquid contained within it.

Q6 A small amount of liquid was added to the second bottle. Why?

A6 This was added to make the bottle more stable as it was falling.

Q7 Outline the reason why the full bottle fell first.

A7 Because the bottle was full it had a greater mass and thus developed a greater momentum which was able to push against air. This reduced the effect of the air resistance, resulting in the bottle falling first.

Q8 If there was no air resistance present, what affect would that have on the rate at which the bottles fell?

A8 Both bottles would have fallen at the same rate due to the effect of gravity.

Q9 Identify a location where there is little to no air resistance.

A9 The Moon.

Q10 Identify the name of the scientist that the astronaut named.

A10 Galileo