Gravity

Forces 3.1.2 | Part 1, usually Year 7 | 20 quick questions

KS3 science quick questions

Answer online, marked instantly

Activate 1: Forces; Activate 1: Space | Exploring Science 7K, 8L

Name: _____ **Date:** _____ **Score:** _____ **/ 20**

1 What is the name of the force that pulls a dropped apple down towards the Earth?

2 What do we call the amount of matter (stuff) that an object is made of? Answer in one word.

3 What unit is mass measured in? Give the unit name.

4 Weight is a force. What unit is weight measured in?

5 Write the equation for weight using mass and g (gravitational field strength).

6 Roughly what is the gravitational field strength on Earth, in N/kg?

7 A bag of potatoes has a mass of 3 kg. What is its weight on Earth? Use g = 10 N/kg.

8 An astronaut takes a 2 kg rock from Earth to the Moon. What is the rock's mass on the Moon, in kg?

9 When an astronaut travels from the Earth to the Moon, what happens to her weight? Answer in one word.

10 Gravity can act on objects without touching them. What type of force is it?

11 Which has the stronger pull of gravity at its surface: the Earth or the Moon?

12 The space around a mass where other masses feel a pull is called a gravitational what? Answer in one word.

13 Can gravity ever push two masses apart? Answer yes or no.

14 What force keeps the Moon moving in an orbit around the Earth?

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15 What piece of equipment, with a spring inside, measures a force in newtons?

Year 9 stretch

16 On the Moon, g is about 1.6 N/kg. What does a 50 kg pupil weigh on the Moon, in newtons?

17 A suitcase weighs 150 N on Earth. Using g = 10 N/kg, what is its mass in kg?

18 A space rover weighs 2000 N on Earth (g = 10 N/kg). On Mars, g is about 4 N/kg. What does the rover weigh on Mars, in newtons?

19 A spacecraft travels further and further away from the Earth. What happens to the pull of the Earth's gravity on it? Answer in one word.

20 Explain why your mass is the same on the Moon but your weight is less.

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