

## KS1 Science Quiz - Forces - Friction and Gravity (Questions)

This quiz addresses the requirements of the National Curriculum KS1 Science for children aged 5 and 6 in years 1 and 2. Specifically this quiz is aimed at the section dealing with the forces of friction and gravity.

Do you know how forces affect speed and going faster? What about forces slowing things down and stopping them? We stop cars and bikes by using friction. When you throw a ball up into the air, what happens? Why does it not just keep going up for ever? Because of gravity! Let's find out a bit more about how things move, and how they stop through friction and gravity.

1. The tennis player throws the ball into the air. What happens to the ball?



- The ball keeps going higher and higher
- The ball goes up and then falls back down again
- The ball is blown away by the wind
- The ball shoots off into space

2. Mr Smith is driving a car. He comes up to some traffic lights. The traffic lights are on red. What must Mr Smith do?



- Stop
- Go
- Go slowly
- Turn round

3. Sam is at a crossing. The red man is showing. What does the red man mean?



- There are lots of people waiting
- You must not cross the road
- There is a bus coming
- You are going the wrong way

4. This boy is on rollerblades. He is braking. He is:



- Speeding up
- Accelerating
- Slowing down
- Going faster

5. Why is this such hard work?



- Because the man is pulling the crate downhill
- Because the man is pushing the crate downhill
- Because the man is pulling the crate uphill
- Because the man is pushing the crate uphill

6. Which of these have to have brakes?



- Only trains
- Only cars
- Only trucks
- All three of them

7. A car comes to a stop. When the car has stopped it is:



- Moving backwards
- Moving forwards
- Not moving
- Still moving

8. This man is on a mountain bike. He is coming down a hill. He does not want to go too fast. What should he do?



- Free-wheel
- Pedal faster
- Pedal backwards
- Put his brakes on

9. The rugby player is kicking the ball. What happens to the ball?



- The ball goes up and comes back down again
- The ball goes up and never comes back down again
- The ball does not move
- The ball bursts

10. Jack is sat in a wooden box. His friend tries to push Jack across the ground in the box. But it is very hard work. The box hardly moves. Why is it so hard to make the box move?



- Because the ground is rough
- Because the ground is smooth
- Because the box has brakes
- Because the box has wheels

## KS1 Science Quiz - Forces - Friction and Gravity (Answers)

1. The tennis player throws the ball into the air. What happens to the ball?



- The ball keeps going higher and higher
- The ball goes up and then falls back down again
- The ball is blown away by the wind
- The ball shoots off into space

The tennis player is serving. Do you play tennis?

2. Mr Smith is driving a car. He comes up to some traffic lights. The traffic lights are on red. What must Mr Smith do?



- Stop
- Go
- Go slowly
- Turn round

Always stop at red traffic signals

3. Sam is at a crossing. The red man is showing. What does the red man mean?



- There are lots of people waiting
- You must not cross the road
- There is a bus coming
- You are going the wrong way

Never cross the road when the red man is showing. Wait for the green man

4. This boy is on rollerblades. He is braking. He is:



- Speeding up
- Accelerating
- Slowing down
- Going faster

How do you slow down on a bike?

5. Why is this such hard work?



- Because the man is pulling the crate downhill
- Because the man is pushing the crate downhill
- Because the man is pulling the crate uphill
- Because the man is pushing the crate uphill

It is always hard to push things uphill

7. A car comes to a stop. When the car has stopped it is:



- Moving backwards
- Moving forwards
- Not moving
- Still moving

Have you ever been told to 'stop what you are doing'?

6. Which of these have to have brakes?



- Only trains
- Only cars
- Only trucks
- All three of them

Going faster is all very well, but you have to be able to stop!

8. This man is on a mountain bike. He is coming down a hill. He does not want to go too fast. What should he do?



- Free-wheel
- Pedal faster
- Pedal backwards
- Put his brakes on

What must you wear when you are on a bicycle? - A helmet

9. The rugby player is kicking the ball. What happens to the ball?



- The ball goes up and comes back down again
- The ball goes up and never comes back down again
- The ball does not move
- The ball bursts

Have you ever played mini tag rugby?

10. Jack is sat in a wooden box. His friend tries to push Jack across the ground in the box. But it is very hard work. The box hardly moves. Why is it so hard to make the box move?



- Because the ground is rough
- Because the ground is smooth
- Because the box has brakes
- Because the box has wheels

The ground is rough. There is a lot of friction. The friction stops the box moving