

# Year 5 Forces

Draw a line to match the word to its definition.

forces

gravity

weight

mass

a measure of how much matter is inside an object

pushes or pulls

a pulling force exerted by the Earth (or anything else that has mass)

the measure of the force of gravity on an object

Name **three** things that forces can do to an object.

1. \_\_\_\_\_

\_\_\_\_\_

2. \_\_\_\_\_

\_\_\_\_\_

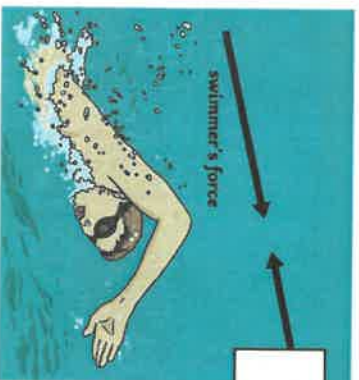
3. \_\_\_\_\_

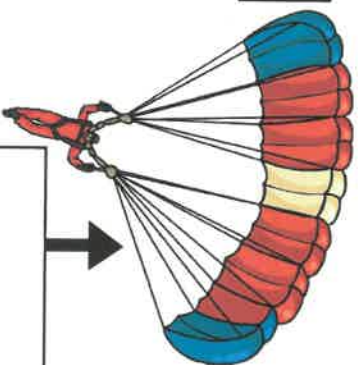
\_\_\_\_\_

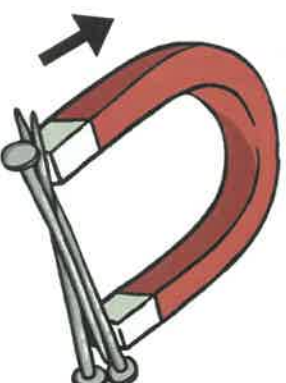
What unit of measure is mass measured in? \_\_\_\_\_

What unit of measure is weight measured in? \_\_\_\_\_

Write the name of the force in action next to each arrow.









# Year 5 Forces

Draw a line to match each word to its definition.

friction

a type of friction caused by air pushing against any moving object

air resistance

a force that acts between two surfaces or objects that are moving (or trying to move) across each other

water resistance

an upward force that a liquid applies to objects

buoyancy

a type of friction caused by water pushing against any moving object

What is the name of the scientist who developed a theory of gravity when he saw an apple fall to the ground?

\_\_\_\_\_

Write **true** or **false** next to each sentence.

Friction always acts in the opposite direction to the moving object. \_\_\_\_\_

Friction always speeds up a moving object. \_\_\_\_\_

Smooth surfaces create more friction than rough surfaces. \_\_\_\_\_

Give an example of when friction is helpful.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Give an example of when friction is unhelpful.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

# Year 5 Forces

Circle the object that would fall the fastest in water.



A



B



C



D

Explain your answer.

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Fill in the gaps in the sentences.

The Earth's gravitational pull is the pull that Earth exerts on an \_\_\_\_\_, pulling it towards Earth's \_\_\_\_\_. It is the Earth's gravitational pull which keeps us on the \_\_\_\_\_.

Select the correct word from each bracket to complete the sentences.

The Moon has a \_\_\_\_\_ (smaller/ greater) mass than Earth so the gravitational pull on the Moon is \_\_\_\_\_ (smaller/ greater) than it is on Earth. Jupiter has a \_\_\_\_\_ (smaller/ greater) mass than Earth so the gravitational pull on Jupiter is \_\_\_\_\_ (smaller/ greater) than it is on Earth.

Write the name of the mechanism next to each picture.




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Write **true** or **false** next to each sentence.

The more wheels in a pulley, the less force is needed to lift a weight. \_\_\_\_\_  
 When two gears are connected, they always turn in the same direction to each other. \_\_\_\_\_  
 A lever always rests on a pivot. \_\_\_\_\_