

Diamonds

I think gravity is important because _____.



Friction helps us by _____.



One way to reduce friction is by _____.



Air resistance slows objects down by _____.



Rubies

When something moves through water, water resistance _____.



Gears work by _____.



One example of using a pulley is _____.



When we use a lever, we apply a smaller force, but it _____.



opa U

Question 1

Tick the correct statements.

1. If a ball and a feather are dropped from a building, the feather is most affected by air resistance.
2. Air resistance is not a type of friction.
3. Air resistance was invented by Galileo.
4. Parachutes use air resistance to slow down a fall.

Question 2

Explain why a skydiver falls at a slower rate when the parachute opens.

Question 3

Complete the table.

	True	False
Gravity only works on objects that are heavy.		
Using a pulley makes it harder to lift a load.		
Gravity exists in space.		

Question 4

Match the different types of resistance to their correct definition.

- air resistance
- friction
- water resistance

A force between two surfaces that are trying to slide across each other.

A force that opposes the motion of an object moving through water, slowing it down.

The force that opposes the motion of an object moving through air.

Question 5

Use the vocabulary to label the image.



fulcrum load force

Citrus

Question 1

Explain what happens as an apple falls from a tree to the ground.

Question 2

Use the word bank to complete the sentences.

1. When a car slow down, it is because of _____ between the tyres and the road.
2. The force that pulls objects towards the centre of the Earth is called _____.
3. A parachute works because of _____ resistance.

air friction gravity

Question 3

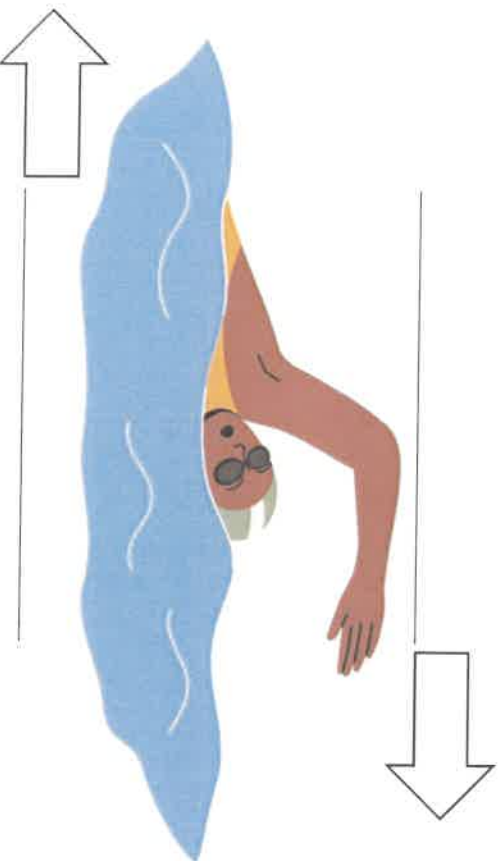
Sort the examples of mechanisms from everyday life into the table.

Bikes Staplers
Scissors Cranes
Blinds Clocks

Lever	Pulley	Gears

Question 4

Label the two forces in action.



Question 5

Write your own definitions for three different types of mechanism.

	Definition
Gears	
Pulley	
Lever	

Question 1

How does a streamlined shape help something move through water more easily?

Question 2

Match the objects with the type of mechanism used in them.



Lever

Pulley

Gears

Question 3

Explain why a ball rolls across a carpet slower than on a smooth floor.

Question 4

Complete the table.

	True	False
When we rub our hands together, it is because of friction that they get warm.		
The more pulleys you use, the easier it is to lift something.		
There is more gravity on the Moon than there is on Earth.		

Question 5

Use the word bank to complete the sentences.

1. Gravity is a force that _____ an object towards the centre of the Earth.
2. Planets with a larger mass than Earth will have a _____ gravitational pull.
3. Because there is less gravity on the Moon, astronauts can jump _____ there.

stronger pulls higher

sapphires

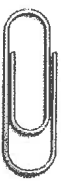
1. Complete the statement using the words from the word bank below.

magnetic materials metal

Magnetic _____ are always made of _____ but not all metals are _____

2. Sort the objects below into the correct groups.

magnetic



paper clip

not magnetic



pencil



gold rings



steel screw

3. Label the parts of the magnet below.



4. Circle the pair of magnets that will attract.



5. Describe how a toy car would likely move on each of the surfaces below.

a thick, fluffy carpet



a smooth, tiled floor

6. A sled is being pulled up a hill. Predict what would happen to the sled at each point on the diagram if the person stops pulling and lets go of the sled.

