

# Key Question: How do fairground rides use forces?

## Key Vocabulary:

air resistance	The force of an object moving through air which affects how fast or slow objects move through air.
water resistance	A force that tries to slow objects down that are moving through water.
surface resistance	A force on objects moving across a surface.
gravity	A force that pulls everything down to the centre of the Earth
pulley	A wheel over which a belt, rope or chain is pulled to lift or lower a heavy object.

### What I should already know

Objects move differently depending on the type of surface it is on.

Some forces need contact between two objects.

Unsupported objects fall towards the Earth because of the force of gravity between the Earth and the falling object.

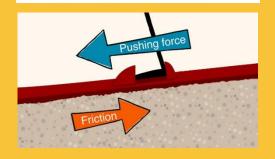
Gravity is what holds the planets in orbit around the sun and what keeps the moon in orbit with the Moon.

#### Diagrams/Images:





Air resistance slows down the parachute as gravity pulls it to the ground.



#### Key Facts:

Gravity is the Earth's natural pull.

Friction can cause objects to slow down.

If a surface is more slippery, it has less friction and therefore an object can move faster (e.g. ice skating).

If a surface is less slippery, it has more friction and therefore an object may move slower.

Moving through air creates less resistance than moving through water.

Some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.

