

Forces

So far we have learned:

- What a force is
- How we measure forces
- That Isaac Newton came up with the theory of gravity



Air Resistance

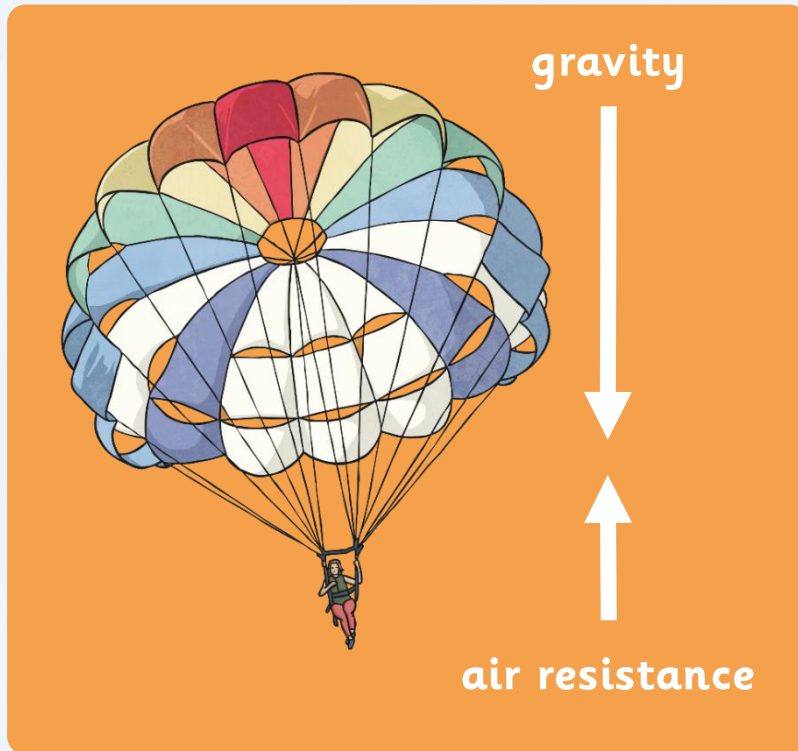


Air pushes against any object moving through it. This is known as **air resistance**. Air resistance pushes on different objects with a different force, which is what causes the feather to fall much slower than a bowling ball on Earth. Air resistance pushes the feather up with a bigger force than it pushes the ball.

Air Resistance

Air resistance can be a useful force, but it can also be unhelpful in certain situations.

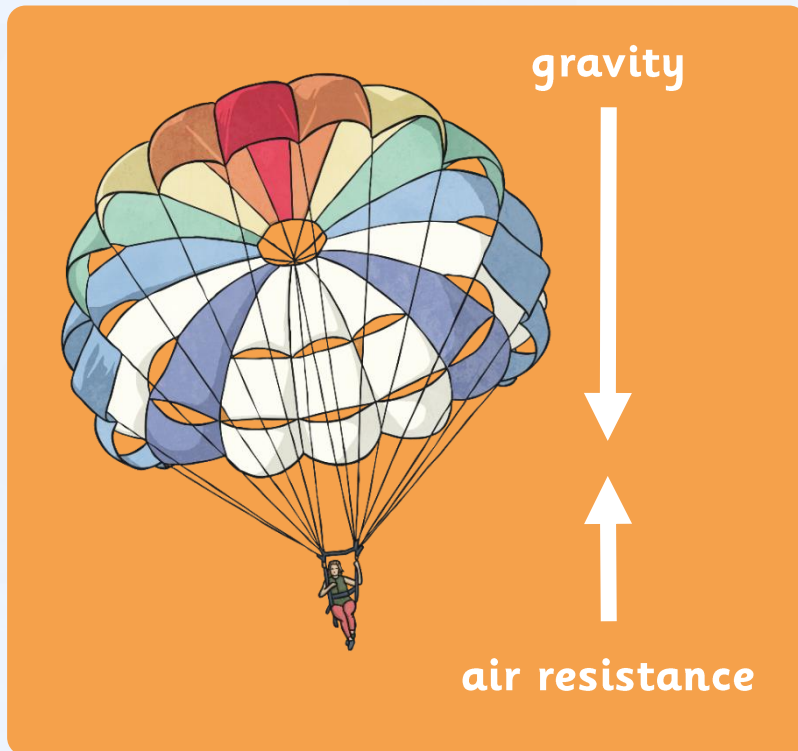
Look at the two diagrams below. Which one shows a **useful** effect of air resistance, and which one shows an **unhelpful** effect of air resistance?



Air Resistance

Air resistance pushes up on the parachute, **opposing** the force of **gravity** and making the parachute and the person fall more slowly. This is a **useful** effect.

But **air resistance** pushes the cyclist back, **opposing** the **driving force** of the cyclist pedalling the bicycle. This is an **unhelpful** effect.





[https://www.youtube.com/watch?v=QyeF-
_QPSbk](https://www.youtube.com/watch?v=QyeF-QPSbk)

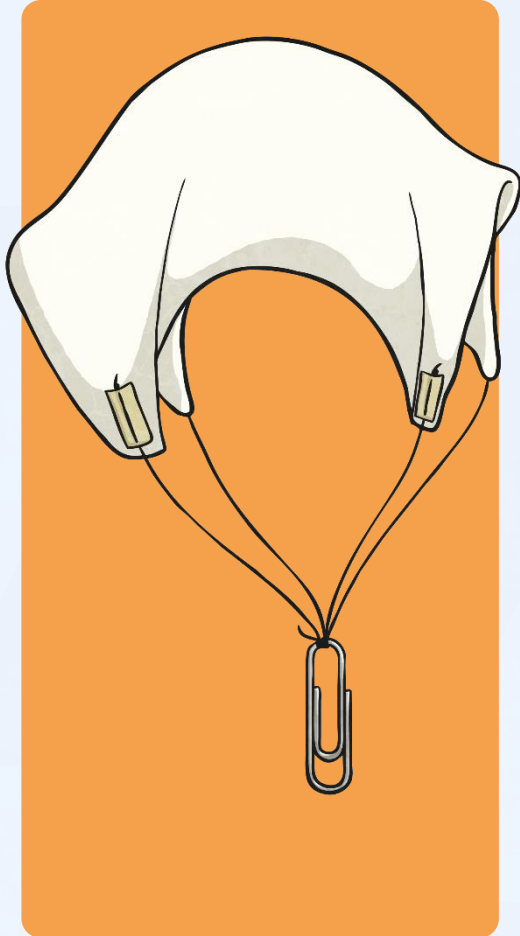
Air Resistance



Air resistance is a force that is caused by air pushing against any moving object.

It can be a helpful and an unhelpful force

The Perfect Parachute



Can you design and make a parachute that will safely land an object when dropped from a height.

Make your parachutes using plastic, paper, cloth or a material of your choice. Tie or tape string to the corners, and tie or tape the four pieces of string to an object such as a toy figure, paper or egg.

<http://www.schoolsworld.tv/node/2990>