

Air Resistance

twinkl

LO: To know what is meant by 'air resistance'

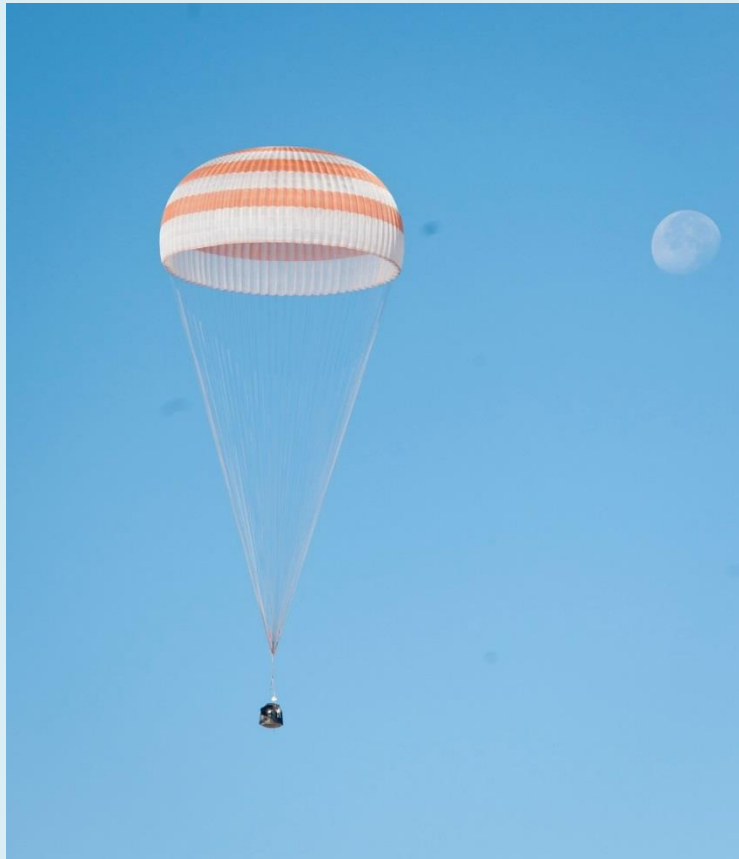
- Understand that air resistance is a type of **friction**.
- To know that the **shape** of an object affects its air resistance.



Air Resistance

As you move, you create **air resistance**. When you run or ride your bike, it is air resistance that pushes your hair back and makes your clothes ripple. The **faster** you move, the **more** air resistance you feel.





This is a space capsule falling back to Earth. It is carrying astronauts back from a space mission.

Which part of the space capsule is creating the **most air resistance**?

Why is it important for the capsule to create **air resistance**?

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When objects move through the air, an invisible force acts upon it and this is air resistance. This is when **air particles** hit the object and create air resistance. The **air particles** that hit an open parachute make it difficult for it to move through the air, because of its **shape and size**.

The shape of an object affects its air resistance. Some objects are **streamlined** which means that they will have less **air resistance** and move through the air easily. Objects that are not streamlined will have more air resistance.

What objects can you think of that are streamlined to help them move through the air?



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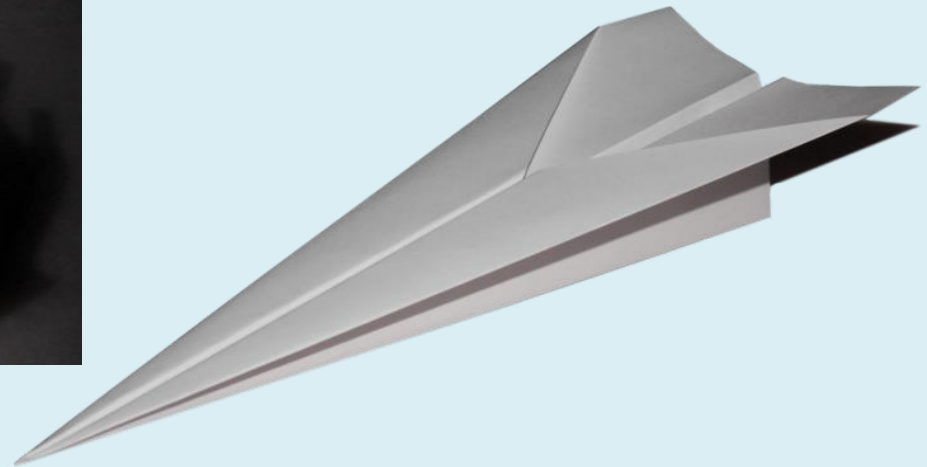
Air resistance affects how fast objects fall through the air. Objects with a lot of air resistance fall slower than streamlined objects, which have little air resistance and will fall quicker.

These two pieces of paper started off the same but they have been made into two different shapes. Which one will fall the fastest? Why?



Scrunched up paper

Paper Aeroplane



KEY WORDS

Air Resistance

Shape

Size

Streamlined