



Paper Aeroplane

Investigations

Paper planes are good fun to make and fly we are going to use them to do another scientific investigation.

You need to decide what you want to test. Remember to keep a test fair we must only change one thing. Choose from investigating:

- Aeroplanes all the same design but made from different types of paper.
- Aeroplanes made from the same paper and design but change the size of the aeroplane: is bigger better?
- Change only the shape of the aeroplane and keep the size and paper the same.

You also need to think about how you are going to measure the aeroplane's success, will it be how far it flies or how straight it flies?



To keep the test fair, you need to think about whether these things matter?

Who will throw it? How will they throw it?
How many times will they throw it?

Here are some videos showing how to make paper aeroplanes.

SIMPLE:

https://www.youtube.com/watch?time_continue=93&v=tBlvLUvJJGM&feature=emb_logo

More complex shapes if you decide to test shapes:

<https://www.youtube.com/watch?v=SpYS5WtvNvQ&t=188s>

(You may need help with the second aeroplane onwards!)



I decided to test shapes.

I threw each aeroplane in the same way twice from the same place.

I tested how far each plane flew.

I had great fun, but one of my aeroplanes flew backwards and landed in the pool!

One of them flew further than the

others. But I will not spoil your investigation by telling you which one.

The Science



These things affect how well your aeroplane flies:

Drag

The smoother something is the easier the object will travel through the air. This is because it takes up less space and causes less drag. The less drag the quicker it flies.

Thrust

The thrust is the force of the aeroplane flying through the air. The strength of your throw gives the thrust. In a real aeroplane the engine provides the thrust.

Weight

The weight of your aeroplane may affect your aeroplane. In very simple terms the lighter something is the easier it is to fly.

This should help you work out why some paper aeroplanes might have flown better during the investigations.

