The Science of Flight with...

Scientist Kristina from little Science LAB

Parachutes are a great way to learn about the other important forces involved in flight: GRAVITY and AIR RESISTANCE.

In your experiment you can test two variables:

1. Different materials used for the parachute
2. The weight of the item using the parachute.

EQUIPMENT

- Newspaper, tissue paper, plastic carrier bags, tin foil, fabric
- Scissors
- A ruler
- Tape
- A hole punch
- Four pieces of string or wool of equal lengths
- A toy soldier or lego person
- A stopwatch or timer

METHOD

STEP 1: You need a roughly 20cm square piece of parachute material. Take your chosen material and cut a square shape using the ruler and scissors to make it accurate.

STEP 2: Put some tape over each corner of the parachute to strengthen it and then use a hole punch to make a hole in each corner through the taped area.

STEP 3: Cut four pieces of string or wool the same length as the sides of your square (so 20cm in this case!) Thread and tie strings through the holes in each corner.

STEP 4: Tie two strings together on each side to make loops and attach the loops to your lego person's arms.

STEP 5: GERONIMO! Hold the parachute by the toy and toss it upwards, what happens? Time how long it takes to float down. You could stand on a chair to get a bigger drop.

THE SCIENCE

If you dropped a lego person without a parachute what would happen? It would fall to the ground quickly because gravity is pulling it downwards.

When you drop the parachute it still falls to the ground because gravitvy is still pulling it downwards but it happens much slower.

The parachute will slow the fall of the lego man because the parachute has a LARGE SURFACE AREA so it has a greater air resistance acting upwards in the opposite direction to the gravitational pull downwards.

Check out Kristina's video to help you do this experiment!
bit.ly/ParachutingExperiment