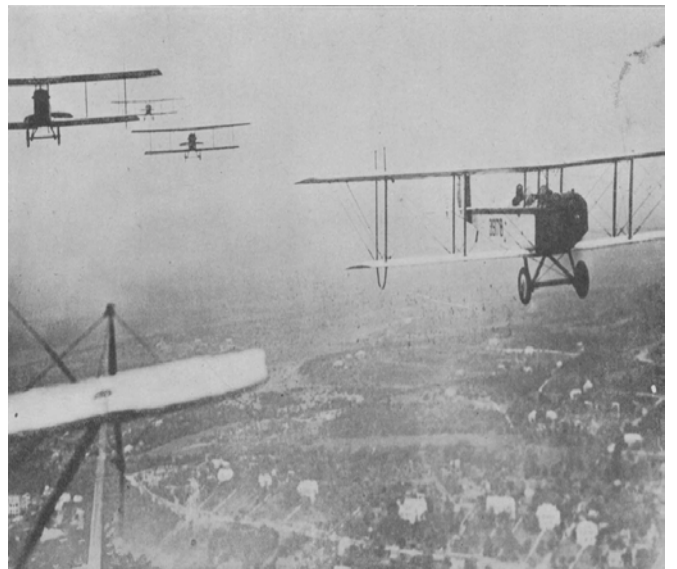




# Parachute Investigation

**Name:**.....

**Date:**.....

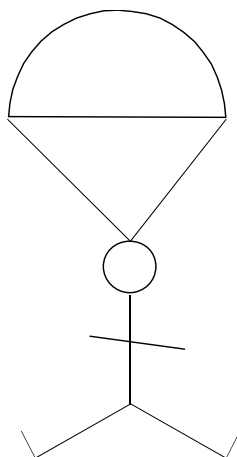


**Parachute investigation.**

You are going to investigate whether there is a relationship between the **size of a parachute** and **how fast an object falls**.

You will **know** the size of the parachutes and you will **measure** how long the parachute takes to fall.

On the diagram below, show the forces acting on the parachute.



Make a list of the variables that could affect how fast the parachute will fall.

- 1. ....
- 2. ....
- 3. ....
- 4. ....
- 5. ....
- 6. ....

Which **ONE** of these variables are you going to investigate? .....

Which variables are you going to keep the same? .....

Make a prediction about what you think will happen as this variable changes and why you think it will behave like this.

.....  
.....  
.....

## **Method**

- First measure how long it takes for the weight the fall to the ground. The weight we used was ..... N.
- The distance the weight has to fall is ..... m.
- Repeat this three times.
- Attach the weight to the smallest parachute. Drop this from the same height and measure how long it takes for the weight the fall to the ground. Repeat this three times.
- Now test each of the parachutes in order in the same way.
- Record the results in the table.
- We tested each parachute three times because  
.....  
.....  
.....
- We investigated at least four different sizes of parachute because  
.....  
.....  
.....  
.....

## **Results**

I. Record your results in this table:

Dimensions of parachute (.....)	Area of parachute (.....)	Time taken for parachute to fall (.....)			
		1	2	3	Average (mean)
10 x 10					
20 x 20					
30 x 30					
40 x 40					
50 x 50					

2. Draw a line graph on graph paper of your results. Remember to label the axes and add the units.

Size of parachute



Average time taken to fall

Conclusion

- Describe what your graph shows. Remember a good way to do this is to start your description **As ..... then .....**

.....  
.....  
.....

- Explain which forces produce this pattern.

.....  
.....  
.....

- Describe any things that might have affected how accurate are your results.

.....  
.....  
.....