# Welcome back to Science – Task Three

Instructions:

Please make sure you have completed the Science task one and two. You can pace these tasks over 2-3 days.

Question: How can you change a paper spinner to make it accurately hit a target?

Carry out a fair test to explore what makes the spinner fall most accurately. Make a paper spinner and drop it from a height above the target. Does it land in the centre every time? Make sure to only change one thing at a time so that you can say what improved the spinner. eg. The height dropped, number of wings, number of paperclips, size of paper, type of spinner.

1.Cut an A4 piece of paper into 3 equal rectangles 2.Cut and fold rectangle as shown below: Fold along dotted lines, cut solid lines 3.Attach a small amount of mass to the bottom of your spinner eg. paper clip or blue-tac 4.Draw a target zone on another piece of paper or place a target on the floor. 5.Drop the spinner above the target and watch where it falls.	
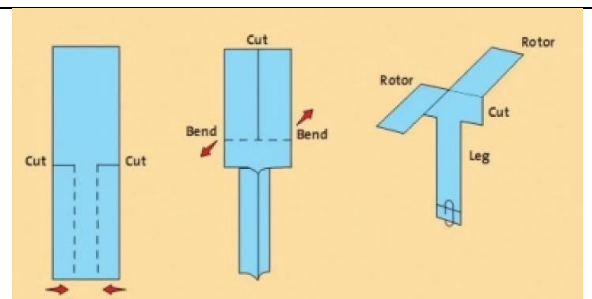
Introduction:

This section tells a bit more about your experiment. What is the point of your experiment? What do you need to know? What do you already know?

ypothesis:

What do you think will happen in this experiment? Will there be a link between the measurements?

Materials:

What materials did you use. You must list all of the materials.

Method:

What did you do and how did you do it? What were the steps that you took to complete the experiment? What did you do with the materials. Think of this sections as a step by step guide like a recipe.

Results/Data:

This sections should only contain data. Facts and figures. You could create a graph for this section or a diagram showing each stage.

Discussion:

What does your data mean? What does it tell you about links between the measurements?

Conclusion:

Now look back at what you wrote in the hypothesis section. Were your right? The proper question that scientists ask themselves is my hypothesis accepted?

Did you know?

A fair test is when scientists look at all the different things(variables) that could affect the result. Then only change one of them to see if it affects the outcome. By only changing one variable, scientists are able to confidently say that that caused the result. Eg. If they changed the number of wings and the mass of the spinner they would not know if it was the mass or the number of wings that changed their result. Fair testing is used to develop new medicines, like the covid vaccine.