

 Notes for parents. Activity next page.**The purpose of this task is to have your child:**

- make accurate measurements as they collect (statistical) 'data' in a practical experiment

**Think about this:**

- **Multivariate Data** is data that arises from more than one variable. In reality, statistical information often includes a number of elements or features. Processing these is more complex than if information is collected about one variable.

For example: statistical information about a population often includes many variables: age, gender, marital status, etc... (multivariate data). Findings can be made about one of these variables, or about a more complex combination of these.

- In this task, as your child tests their planes, they are collecting multivariate data. Their decision about the 'best' plane will therefore need to consider all of the variables of distance, height, position, flight path, etc...
- Your child will benefit from discussing this with you.



# Activity | Flights of fancy

Y6

A **measurement** and **statistical** investigation.

Mark, Ellie and Ned are making paper planes. Each person claims that their plane is the best model. They have a problem!

They plan an investigation for planes 1, 2 and 3, collect data, analyse this, discuss their findings and come to a conclusion.

Their data recording sheet looks like this.

	Indoors	Plane 1				
		Distance travelled	Time in the air	Estimated max. height	Landing position upright/not	Flight path straight/tumbling
Trial 1						
Trial 2						
Trial 3						
	Outdoors					
Trial 1						
Trial 2						
Trial 3						

## Carry out your own investigation.

You need: a tape measure, a watch, some card or paper, scissors and a pencil.

- Make three different paper or cardboard planes.
- Make your own recording chart.
- Carry out indoor and outdoor trials for each model and record your results.
- Analyse your (multivariate) data and state some conclusions.
- Identify the limitations of your investigation.
- Explain your investigation and outcomes to a family member.

