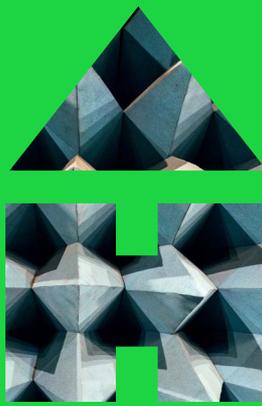


1st & 2nd Class  
Science



## Quiz

An engineer is a person who designs and builds all types of machines, computers and buildings. Engineers love to know how and why things work. They design and build anything from spacecrafts to computer games to ice cream machines. **The Engineering Design Process** is a series of steps that engineers use to guide them as they solve problems.

Here are the steps of the engineering design process in mixed up order. Can you put them in the correct order on the diagram?

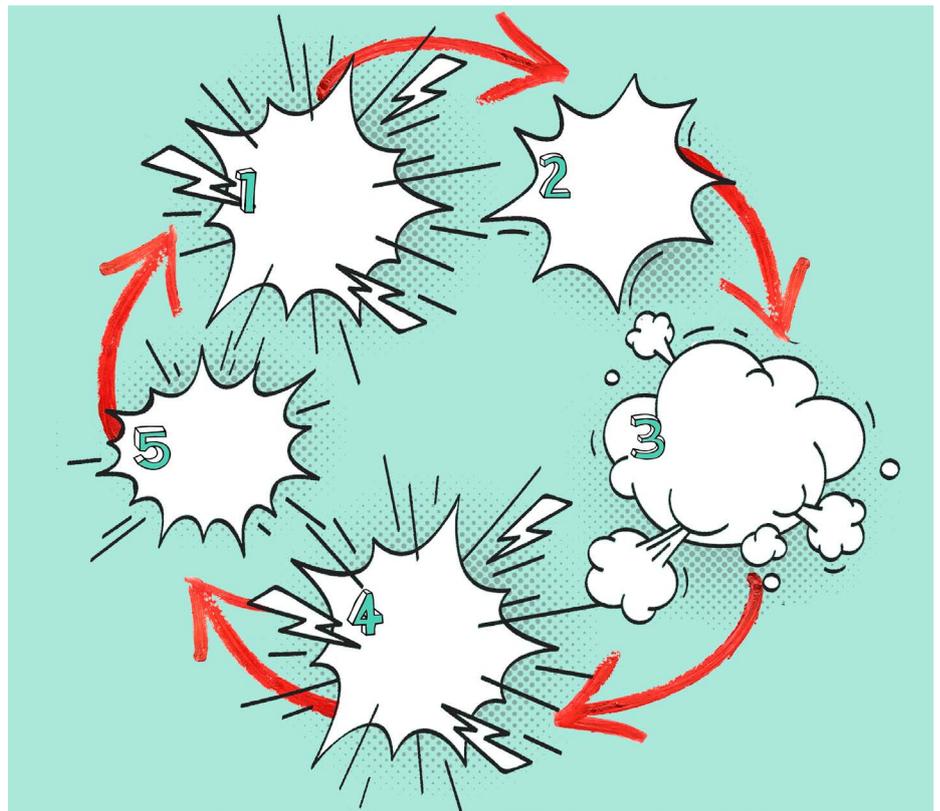
**Create** - Make it and test it

**Ask** - What is the problem to be solved?

**Imagine** - Come up with a solution

**Improve** - Reflect on what worked well, and what didn't. Improve it

**Plan** - Draw it and make a list of materials





# Design an Airplane

Did your crisp make the journey in the post? Fancy another engineering exercise? For this one we are going to become aeronautical engineers; they are the people that design airplanes.

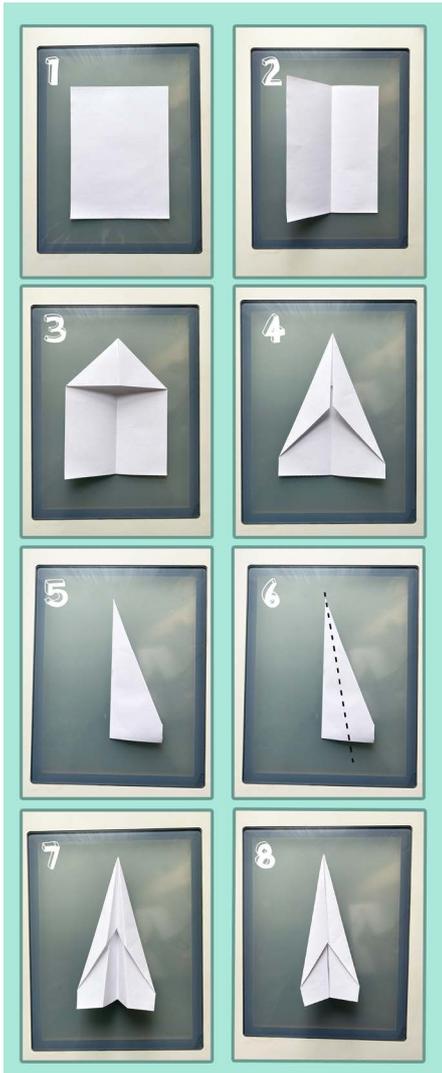
**Here is the basic design for an airplane, made with a rectangular piece of paper.**

## Method -

- 01** Get a rectangular sheet of paper.
- 02** Fold in half to make a centre crease and then unfold.
- 03** Fold the top corners in to the centre crease.
- 04** Fold the top edges to the centre crease.
- 05** Fold the plane in half.
- 06** To make the wings, fold down the paper where the dotted line is on both sides.
- 07** Pop out the wings.
- 08** Now you are ready to fly!

## Your Challenge

Try to improve on this basic design to make it fly further or faster. Or, come up with a totally different design of your own. Use the engineering design process to guide you through the designing and building of your airplane.





# Design an Airplane

## Different tests you could try

Use different types of paper.

Make different size planes with big and small pieces of paper. Does the size of the plane effect how far and how fast it flies?

Can your plane carry some light coins? Where is the best place on the plane to tape the coins? How many coins can your plane carry?

Challenge your family members to see whose plane can fly the highest and farthest. Who in your house can make a plane that can glide the furthest with coins onboard?



# Jokes

**What do you call it when a giraffe swallows a plane?**

A plane in the neck.

**Why did the plane get sent to his room?**

Bad altitude!

**How do rabbits travel?**

By hare-oplane.

**What flavour crisps do they sell at the airport?**

Plane.

