Museum Maths

Did you know that the RAF was formed in 1918, over 100 years ago?

The RAF started with very basic planes, equipment and uniforms. We will see how aircraft changed shape through time, as we learned more about flying. As aircraft had different jobs as time moved on, they changed their shape so they could fly faster or higher.

In this activity, we are going to be investigating numbers and shapes. Using the pictures and information shown, can you answer the following questions?
Question 1

Have a look at the picture below. What shapes you can see. Can you see any circles, squares, triangles? Where are they? Write down where you can see them

Question 2

Can you see that there are numbers on the side of the Typhoon? This is the aircraft registration number - all aircraft have these. Can you say out loud what it is and write it down too?
Question 3

On any RAF aircraft you might see this roundel. It's an identification mark, painted on aircraft to identify them to other aircraft and ground forces.

Can you say what shape it is?

How many are there?

Are they the same on all aircraft?

Question 4

If you look at the aircraft does it look the same both sides? Is it symmetrical?
Question 5

The Avro Lancaster was a Second World War aircraft and the most successful in the RAF's Bomber Command. How many wheels does the Lancaster aircraft have? Can you count them all?
Question 6

The Hawker Siddeley Nimrod was a Maritime patrol aircraft. It was used to fly for long periods of time over water.

How many wheels does the Nimrod aircraft have?

Can you count them all?
Question 7

Going back to Question 6, do the aircraft look the same or do they look different?

Write down what you think is different?
Are they bigger or smaller?

Are the wings longer or shorter than each other?

Question 8

Below are images of a Second World War and a modern-day helmet. Do they look the same? Does one look heavier than the other?
Question 9

Below is a picture of a First World War pilot and a modern-day pilot. Can you compare the two pictures?
Question 10

Can you design your own aircraft using the ideas and shapes from this sheet.

Include:
• Any three-dimensional shapes like spheres, cones or cylinders

Think about:
• What shape are the wings of an aircraft?
• What shape is the front of the aircraft?
• Are aircraft symmetrical?

Use the space below to draw your design.

Can you add your own aircraft number?
This resource sheet is to help you recognise numbers and shapes you may have learnt already and help you with any you haven’t. You may want to print the shapes out to help you answer our questions!

Numbers and Shapes

1 2 3 4 5 6
One Two Three Four Five Six

7 8 9 0
Seven Eight Nine Zero

Two Dimensional Shapes

Triangle

Rectangle

Circle

Square
What is Symmetry?

Something is symmetrical when it is **the same on both sides**. A shape has symmetry if a central dividing line (a **mirror line**) can be drawn on it, to show that both sides of the shape are exactly the same.