Year 4 Maths Trail Teachers' notes

H3 H4 H5

This trail is designed to support National Curriculum mathematics learning, and covers a range of subject areas, including calculation, measurement, geometry, and statistics.
It is based on the real mathematics and numbers involved in the mechanics and the history of the planes in Hangar 3/4/5.

The trail can be done individually or in groups, and all that is needed to complete it is a print-off of the questions and a pencil, though clipboards may also be useful. The answers for each question are below.

1. Different planes have different symbols on them to show which country they are from. Make a tally chart of the number of planes with each symbol as you go around the Hangar.

   The answer will depend on the exact route taken around the Hangar; however, they should find at least one of each of the different symbols.

2. Find the Hawker Typhoon. What is its top speed in miles per hour? How far can it travel in 3 hours?

   412 mph x 3 = 1236 miles

3. Have a look at the Bristol Beaufighter. Can you work out the perimeter of the rectangle tail marking? Two sides have been given to help you.

   70 + 70 + 61 + 61 = 262 cm perimeter.

4. Go to the helicopters and find the Bristol Sycamore HR14 helicopter. Work out the co-ordinates of the people below to help the search and rescue team find them.

   A: (b, 2) B: (c,1) C: (g,4) D: (i, 3)

5. Find the Hawker Hurricane. The Hurricane was responsible for 60% of all German aircraft destroyed during the Battle of Britain. What is 60% as a fraction and as a decimal?

   0.6 and 6/10 or 3/5.

6. What is the number on the side of the Avro Anson? What are the last three numbers on the number plate of the Queen Mary tractor?

   Subtract the Anson number from the Queen Mary number. Then add the two numbers together.
   Anson: 68
   Queen Mary: 940
   940 – 68 = 872
   940 + 68 = 1002

7. Put these planes on the correct places on the timeline below.
   a) Heinkel He111H-20
   b) Bristol Beaufort VIII
   c) Airspeed Oxford 1

   Heinkel 1936-1945
   Beaufort 1939-1943
   Oxford 1937-1954

8. Find the Messerschmitt Bf 109E-3. It has a wingspan of 9m. If 7 Messerschmitt aircraft were lying next to each other, how many metres long would they be?

   9m x 7 = 63m

9. Have a look at the Fiat CR42 Falco. It uses metal poles arranged in triangles to support the two wings. Use the picture below to calculate the size of the missing angle.

   180 – 60 – 60 = 60 degrees.

10. Use the information from your tally chart of the different symbols in Question 1 to make a bar graph on the lines below.

    The bar graph should accurately represent the data they collected in Question 1.

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