



## Stage 3 Answers



Name:

Pack:

1

### Section 1a: Airfields Can Be Dangerous Places!

Learn the rules for access to an airfield.

Read the statements below and tick the correct answer.

1. The Troop has been told to get from A to B on an airfield. You think you know where to go but the roads and signs are not clear and the airfield controller is unavailable. Should you...?

- Move to where you think you should be heading taking the shortest route possible?
- Sit down where you are and wait until someone comes to help?
- Move in the direction that you think you are meant to be heading sticking close to the perimeter, never crossing the airfield and being observant of what is going on around you?

2. An aeroplane on the ground is taxiing towards you. Should you...?

- Run Away?
- Stand Still?
- Lie Down?

3. A jet aeroplane is standing on the tarmac with its engine running. Where is safe to stand?

- In front of the jet intake.
- Behind the jet exhaust.
- To the side of the aircraft and well clear.

4. Your troop is looking at an aircraft with a propeller. The propeller is not turning. Should you...?

- Leave well alone unless a qualified flying instructor is present and says otherwise?
- Try to turn it and see if anything happens?
- Try turning it only after checking that there is no pilot in the aircraft and that the controls are off?

5. You see a red triangle near the cockpit of a jet aeroplane. What does it mean?

- Ejector seat.
- Don't climb on the aircraft.
- Nothing – it's just a pretty pattern.

6. A light aircraft is being serviced in a hangar. Is it safe to...?

- Turn the propeller by hand?
- Get into the cockpit and try the controls?
- Assume that the aircraft is a dangerous place and keep well clear?

7. You see a large spillage of an unidentified liquid on the tarmac. Do you....?

- Treat the spillage with caution and notify a member of staff on the airfield?
- Rub your hand in it to try and smell what it is?
- Do nothing about it?

## Section 1b: Learn the different parts of an airfield

At home, draw a diagram or make a model of an airfield to show and name different points. Label the runway, control tower and Hangars.

2

## Section 2: Activities

Understand the terms – nose, fuselage, tail, wings, port, starboard and tailfin. Learn the names of an aeroplane's control surfaces.

Correctly label the aeroplane diagram below with the following terms:

**Fuselage** – the body of an aeroplane

**Wing** – the part which supports the aeroplane when flying

**Tailplane** – small horizontal wing at the tail of the aeroplane

**Tailfin** – the upright surface on the tail

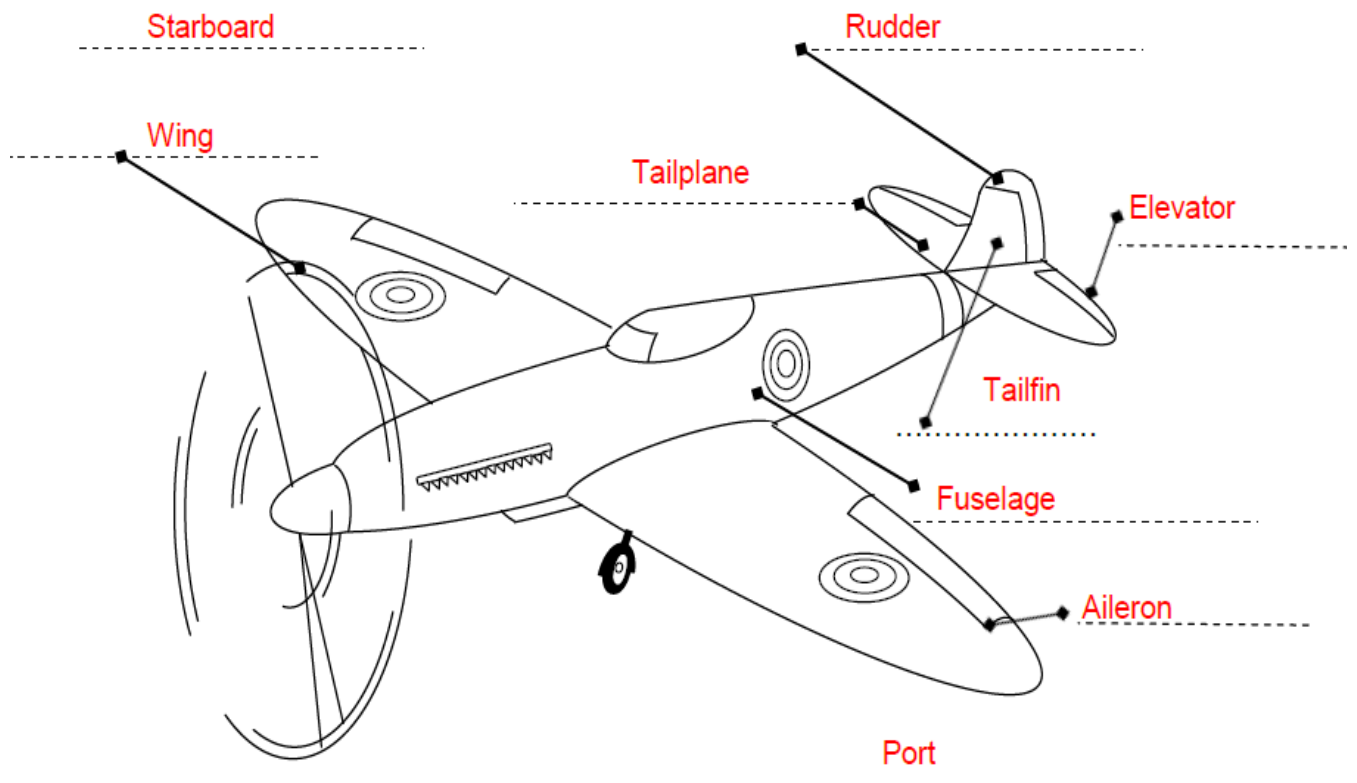
**Rudder** – hinged rear part of the fin which helps the pilot to steer

**Aileron** – hinged rear edge of the wing

**Elevator** – hinged rear part of the tailplane

**Port** – left hand side of the plane

**Starboard** – right hand side of the plane



Learning about the controls on an aeroplane will help you to get better acquainted with the different parts of the plane.

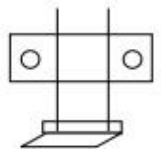
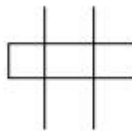
Find the large model aeroplane in the Fun 'n' Flight Interactive Gallery.

Instruction	Model Plane Response	Real Plane Response
Pull control column backwards.	<b>ELEVATORS</b> move up.	The plane climbs.
Push control column forwards.	<b>ELEVATORS</b> move down.	The plane dives.
Push control column left.	Port (left) <b>AILERON</b> goes up and the starboard (right) <b>AILERON</b> goes down.	The plane banks (tilts) left allowing the pilot to change direction.
Push control column right.	The port aileron goes <b>DOWN</b> and the starboard aileron goes <b>UP</b> .	The plane rolls to the right.
Push left pedal forwards.	The <b>RUDDER</b> moves to the left.	The plane will turn left if it is also banked to the left.
Push right pedal forwards.	The rudder moves to the <b>RIGHT</b> .	The plane will turn right if it is also banked to the right.

3

### Section 3: Construct and fly a chuck glider for at least five seconds. You can also build and fly a miniature hot air balloon or kite instead

You may find that a visit to the museum shop could help you. There are simple model glider kits on sale which can help you complete this activity. Alternatively have a go at making your own at home.



1. Take a piece of A4 paper and fold it into rectangle 2cms in width. Secure your 'wing' with tape to stop it unfolding.

2. Tape 2 drinking straws to your wing approx 9cms apart. Make sure the wing is in the middle of the straws.

3. Cut a small piece of card (2cms by 13cms). Fold this in half.

4. Tape the card to the rear of the glider making sure the bending point is facing up. Put 2 small blobs of blu tack at each end of your wing.

5. Your glider is ready to test.

## 4

**Section 4: Collect photographs or pictures of six aircraft that interest you. Name them and identify their operational uses.**

Take a photograph of 6 different aircraft you can find at the RAF Museum. Write the name of each aircraft and their operational use below:

1.	Aircraft Name:
	Operational Use:
2.	Aircraft Name:
	Operational Use:
3.	Aircraft Name:
	Operational Use:
4.	Aircraft Name:
	Operational Use:
5.	Aircraft Name:
	Operational Use:
6.	Aircraft Name:
	Operational Use:

**5****Section 5: Take part in a visit to a place of aviation interest.**

By visiting the RAF Museum today you have completed requirement 5 of your Stage 2 Air Activities Badge.

**6****Section 6: Communicate with someone or spell your name using the phonetic alphabet. Explain why it is used in aviation.**

The phonetic alphabet, replaces letters and numbers with code words. It is used by pilots and air traffic control when they are talking over the radio. Certain combinations of letters and numbers can be easily misunderstood, (such as hearing an “S” for an “F” or a “B” for a “D”). Using the phonetic alphabet ensures that voice communications are understandable.

A – Alpha	N – November
B – Bravo	O – Oscar
C – Charlie	P – Papa
D – Delta	Q – Quebec
E – Echo	R – Romeo
F – Foxtrot	S – Sierra
G – Golf	T – Tango
H – Hotel	U – Uniform
I – India	V – Victor
J – Juliet	W – Whiskey
K – Kilo	X – X-ray
L – Lima	Y – Yankee
M – Mike	Z - Zulu

**Spell out your name below using the Phonetic alphabet**

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**Well done! You are well on your way to achieving Stage 3 of your Air Activities Badge. There are still two more tasks you need to do to complete the badge. You could do these at the Museum or at your next Section Meeting.**

**7**

**Section 7: Show how you would get a weather forecast for an air activity.**

**8**

**Section 8: Using 1:50000 and 1:25000 OS Maps, show you understand the meaning of scale and common map symbols. Explain how a pilot might use a map differently from a car driver or somebody on a hike.**