Air Activities Staged Activity Badge

We've recently updated the requirements for this badge. Young people can work towards the old or new requirements until the 31 June 2026. From the 1 July 2026, young people must follow the new requirements.

Previous requirements

Stage 1

How to earn your badge:

1. Make an aircraft out of paper and see how well it flies. You could use a paper dart or a helicopter and drop it from a height.
2. Find out about one kind of aircraft and tell others in your section about it. It could be a commercial aircraft like Concorde or Airbus or a military aircraft like a Spitfire, Lynx or Chinook.
3. Spell your name using the phonetic alphabet.
4. Talk to somebody who has flown in an aircraft, helicopter or hot air balloon. What was it like? If you have already flown in an aircraft, tell others in your section about it.
5. Tell others in your section about an aircraft (real or imagined) that you would like to fly in and why. You can do this through drawings or models.

Stage 2

How to earn your badge:

1. Make and fly a model aeroplane, three different types of paper glider, a hot air balloon or a kite.
2. Choose 3 of these:
    a. Name and identify the main parts of an aeroplane
    b. Identify six airlines from their markings.
    c. Name and identify different types of aircraft (such as powered aeroplanes, airships, gliders or unmanned aircraft)
    d. Collect and identify six pictures of different aircraft. Share them with others in your section.
    e. Explain how different weather conditions can affect air activities.
    f. Fly in an aircraft and tell the rest of your section about it.
    g. Meet someone who flies regularly and talk to them about their experiences.

3. Send a simple message using the phonetic alphabet.
4. Visit an airfield, air display or air museum.
5. Know the dangers involved in visiting an airfield.

Stage 3

How to earn your badge:

1. 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.
2. Understand the terms nose, fuselage, tail, wings, port, starboard and tailfin. Learn the names of an aeroplane's control surfaces.
3. Choose one of these activities:
    a. Collect photographs or pictures of six aircraft that interest you. Name them and identify their operational uses.
    b. Tell others about an airline that you are interested in, or have travelled on, including the airline's uniform and logos.
    c. Find out about unmanned aircraft, such as drones, and the rules around flying them safely.
4. Show how you would get a weather forecast for an air activity.
5. Send and receive a simple message using the phonetic alphabet. Explain why it is used in aviation.
6. Draw a diagram or make a model of an airfield to show and name different points. Use your diagram model to explain the rules for access to an airfield.
7. Take part in a visit to a place of aviation interest, such as an airfield, air display or air museum. Tell others about something you learnt.
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.
9. Use a flight simulator programme. Show the effects of the controls.

Stage 4

How to earn your badge:

1. Trim a paper aeroplane or model glider to perform a straight glide, stall and turn.
2. Name the main control surfaces of an aeroplane and how they work.
3. Identify six aircraft in use today from pictures or in flight. At least two of the six must be civil commercial aircraft, one must be a military aircraft and another two must be light private aircraft.
4. Explain how wind speed and direction are measured. How does the weather affect air activities?
5. Explain the difference between a Mayday radio call and a Pan-Pan radio call. Give examples of when each might be used.
6. Choose one of these activities:

    a. Help to organise a visit to an airfield or place of aviation history for a group of Scouts (Beavers, Cubs, Scouts or Explorers). Explain what the Scouts will need to know before the visit.
    b. Take part in a flight (for example in a light aircraft or glider) as a passenger.
7. Draw a runway and its circuit patterns.
8. Learn the common types of charts and the conventional signs used on them.
9. Show how to perform a pre-flight check on a light aircraft, microlight or glider. Explain why inspecting each part is important.
10. Show how to do a take-off and landing using a flight simulator computer programme that uses a joystick.

Stage 5

How to earn your badge:

1. Build a scale model from a plastic kit, plans or photographs.
2. Explain the relationship between lift, drag, thrust and weight.
3. Choose one of these activities:
    a. Explain the basic principles of a piston engine, including the four-stroke cycle, with consideration of valve and ignition timing.
    b. Explain the similarities and differences between a piston engine and a jet engine, covering the main parts and workings
4. Explain how wind direction and strength is important in take-off and landing. Explain how a wing gives lift and why a wing stalls.
5. Explain how temperature and atmospheric pressure are measured in weather forecasting.
6. Explain basic cloud types, how they are formed and why they're relevant to air activities.
7. Tell others about the duties of either:
    a. an aircraft marshaller, demonstrating marshalling signals
    b. a crew leader for a glider launch. Show their procedure and the signals they use.
8. Complete the flight time calculation test:
    Imagine you're planning a cross-country flight of at least 60 nautical miles, at an air speed of 90 knots.
    What would the time of flight be, from an overhead starting point to another overhead destination?
    Your assessor will give you a head or tail wind to factor in when you're working this out.
9. Take part in a flight (for example in a light aircraft or glider) and point out the landmarks that you fly over on an aviation chart.
10. Explain the purpose of a pre-flight checklist and the main items you would check.
11. Find out about the different types of air traffic control services used at airfields and airports. Explain how this would be different at a small local airfield compared to a large international airport.

Stage 6

How to earn your badge:

1. Build and fly (from plans, kits or from scratch) one of these:
    a. rubber band powered model aircraft for 15 seconds
    b. glider for 15 seconds
    c. model airship
    d. hovercraft
    e. round the pole model (RTP)
2. Explain what trim is and the importance of weight and balance.
3. Explain why flaps, slots and slats can be found on aircraft and how they work. Give examples of aircraft that use these devices.
4. Identify the weather conditions associated with the movement of air masses over the UK, such as tropical, maritime and continental.
5. Interpret Met Office reports and forecasts for pilots including METAR and TAF.
6. Find out why Morse code is still transmitted by navigational beacons. Recognise six threeletter sequences.
7. Identify:
    a. runway and airfield markings
    b. light and pyrotechnics signals
8. Find out the reasons for civilian airport security, the main threats and ways of counteracting them.
9. Explain how an aircraft compass and a direction indicator work, as well as potential errors.
10. Explain how aircraft pressure instruments, altimeters and airspeed indicators work.
11. Take an active part in at least three flights. Show how you develop your skills with each flight, including assisting with navigation and flight planning, and learning how controlled airspace might affect these flights.
12. Tell others about the emergency procedures for one type of aircraft such as a powered light aircraft, microlight, glider or small helicopter. What should be done in the event of engine failure, cable break or autorotation?