The Wright brothers

Teach your Group about these adventurous aviators and the incredible impact their invention had upon the modern world

Wilbur Wright

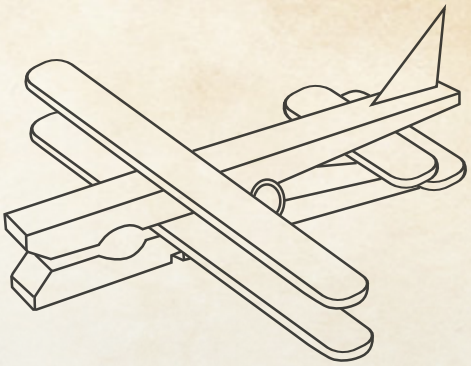
Wilbur and Orville Wright were two American brothers who are credited with designing, building and flying the first successful fixed-wing heavier-than-air flying machine.

With only seven years of high school between them, the brothers set up their own printing shop, using a printing press that they had designed and built themselves. They then used this business to fund their growing interest in aeronautics. After a great many attempts, the brothers finally achieved success between 1904 and 1905, during which time they managed to fly distances of up to 200 feet at around 10 feet above the ground.

Orville Wright

Activity

Build a lolly stick bi-plane



Suitable for Beavers and Cubs

You will need

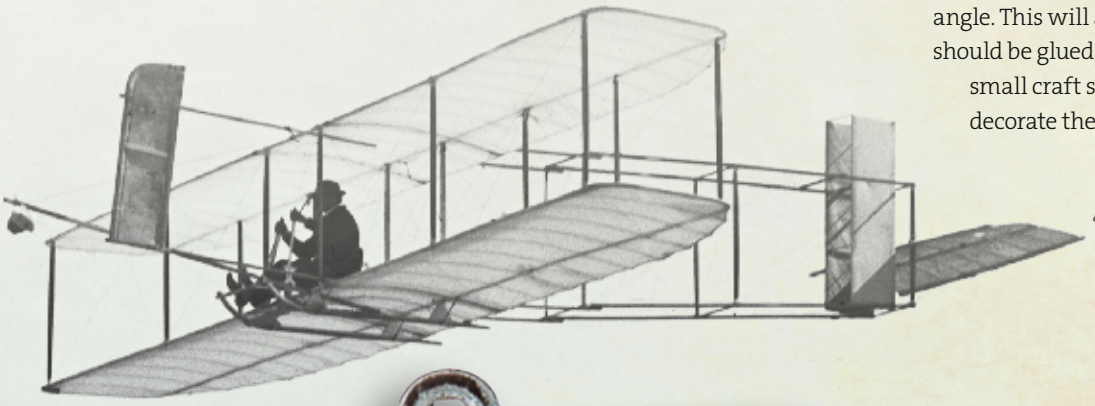
- Wooden lolly sticks or small crafts sticks
- Hot glue
- Wooden clothes pegs
- Scissors
- Paint, glitter and felt tips to decorate

Instructions

1 For younger sections, start by asking them to carefully glue the underside of the opening end of the clothes peg to the centre of a small craft stick. Then glue another craft stick on the top side of the clothes peg, making sure it lines up neatly with the lower craft stick.

2 Next, ask them to use scissors to cut one craft stick in half and trim each half down to look like a miniature craft stick. Now they can stick one of these to the underside of the opposite end of the clothes peg, and another to the top side.

3 Ask them to cut 1cm from the end of another craft stick at a slight angle. This will act as their tail fin and should be glued to the top of upper small craft stick. Now they can decorate their planes!



Orville Wright flies a glider over Kill Devil Hills.

What they did for us

1. Although not the first to build and fly experimental aircraft, they were the first to invent aircraft controls.

2. In particular, they invented the three-axis control – a type of steering that enables pilots to steer while maintaining equilibrium. This is still a feature on planes.

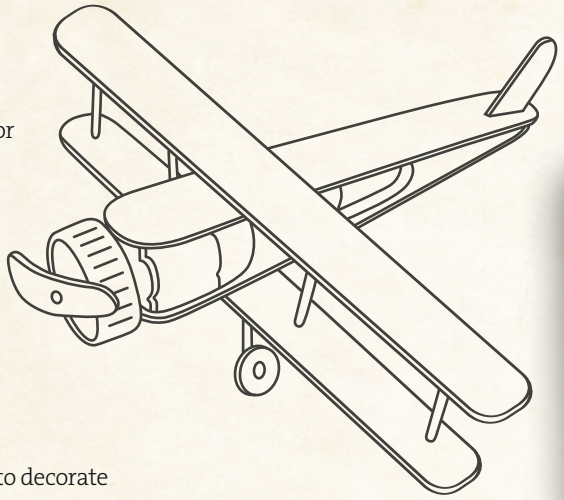
3. Their creation not only paved the way for modern travel, but also changed the way wars were fought by enabling aerial warfare.

TURN THE PAGE...
...and find out how to make a motor-powered bi-plane

Activity

Build a motor-powered bi-plane

Suitable for Scouts



You will need

- Large wooden lolly sticks or crafts sticks
- Hot glue
- Scissors
- 9V motor
- 9V battery clip connector
- 9V alkeline battery
- Wooden skewers
- Small buttons
- Small propeller
- Paint, glitter and felt tips to decorate

Instructions

1 Older sections can make a version with a powered propeller by taking a large craft stick and gluing the motor to the upper side of one end, facing forward, leaving the wires hanging free. This is the front of their plane. They should then glue another craft stick to the top of the motor and join the ends of the two crafts sticks with more glue.

2 Ask your Scouts to cut a 1cm piece from a craft stick to act as the tail fin and glue in place. Now they should take two more craft sticks, sticking one horizontally across the upper side of the front of their plane and the other in the same place on the underside of the plane. These are the wings.

3 They can now attach the battery to the clip connector and insert them behind the motor, leaving the wires hanging free for the time being.

4 Next, they should cut the wooden skewers into four small pieces that fit snuggly in between the upper and lower wings – two on each side – to act as the interplane struts.

5 To create the landing gear, they should glue two 2cm pieces of skewer, parallel to each other, to a small square of craft stick. They can then glue two matching buttons to each of the pieces of skewer and then glue the base to the middle of the underside of the plane.

6 Lastly, ask your Scouts to attach the propeller to the motor with a blob of glue. Connect up the motor wires with the battery connector clip wires and the propeller should begin spinning. Disconnect the wires to make the proper stop, or add a switch if you'd like to be able to turn it on and off easily. Now decorate!

TIME NEEDED

40 minutes

BADGE

Scouts Air Researcher Badge

PARTNER

ROYAL AIR FORCE

MORE INFORMATION

The Royal Air Force is delighted to be working in partnership with The Scout Assosciation as part of a strategy to inspire and enthuse young people about Science Technology, Engineering and Maths. Operating at the leading edge of technology, the RAF relies on a constant inflow of talented and motivated young people to help us undertake our role as part of the UK's Defence and as a force for good around the world. We are currently working with The Scout Association to produce an activity pack in support of the Air Researcher badge, which will give Scouts insight into the world of aviation and aerospace.