

Wonderful Wings

Learning aims:

- Understand the uses of wings and which animals have them
- Explore how nature has influenced how humans have learned to fly!
- Learn more about the function of wings through creative play
- Discover winged animals in your school

Activity 1: What are Wings? (KS1&2)

As a class, **make a list** of as many winged animals as you can think of. This may include birds, insects, bats, and even flying fish! *Hint; For KS1, you can print photos of different winged animals and teach your class their names.*

KS2: Allocate each student an animal to research. Ask them to **create a fact sheet** about their winged animal - answers questions such as: what does it use its wings for? What are its wings made of (skin/feather/scales)? Do their wings have bones? Present your fact files to the rest of the class so that everyone can learn something about an animal that they didn't research.

Activity 2: Wings in Design (KS2)

Research different flying **transport** modes and the animals that influenced them. This can be everything from the shape of a plane wing to a "wingsuit" - challenge your students to think about the different **animals that may have influenced** each design. *Hint: you can make this challenge a little easier by printing photos of different animals and instructing students to match the animal to the design.*

Add on activity - challenge students to draw their own human mode of transport basing it on an animal that has wings.

Activity 3: Creative Play (KS1&2)

Challenge your students to **design their own wings!** Begin with the design phase by asking questions such as:

- What are your wings used for?
- What are they made out of?
- What habitat do you live in?
- What do you eat?
- Are you camouflaged?

If you have the time and resources, you can give your students the materials to **create their wings** to fit themselves. This can be combined with an imaginative play session.

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Activity 4: Wing Watch (KS1&2)

Discover animals in your school grounds that have wings by **bug hunting and bird watching**.

This can be done inside by looking out the windows - you might spot birds, butterflies, bees or other flying insects. Or you can take your class on a bug hunt around the school. You can use resources on The Parks Trust website such as our "**How to Bug Hunt**" and "**Butterfly Spotting**" guides.

Additional Activities

KS1&2: Set up an **experiment** about aerodynamics!

Arrange a line of different objects, including items like a piece of paper, a ball, a rock, and most importantly - a feather.

Ask your class to **hypothesize** which items will fall slower, and which will fall faster.

Set up a standard drop height and a timer. You could allocate students different roles (i.e. someone to drop, someone to time, someone to write results).

Try to record the speed at which each item drops. The most important thing is that they recognise that the items drop at different speeds. For KS you can enhance this understanding by talking about the physics of this experiment - surface area, weight, force (gravity) etc.

KS2: If you have access to **microscopes**, you could put the feather under a microscope and have the students study how it looks up close (alternatively, there are many images online). You may notice that parts of the feather are "barbed" and can be locked together a bit like a zip. This is what creates the flat, light surface that air cannot travel through, creating lift and enabling flight.

KS2: Research the feathers of different birds to see how their shape varies in the animal kingdom.