

Grades: K-5

Interdisciplinary: Science & Art

What's Your Wingspan?



LESSON FOCUS & GOALS

Students will practice basic measurement skills while learning some fundamental similarities and differences between humans & birds, specifically examining the structure & function of arms vs. wings. The goal is to have students participate in an inquiry-driven process by examining their own 'wingspans' & comparing their own measurements to a bird with the same wingspan.

MATERIALS NEEDED

butcher paper (optional)
coloring tools (optional)
scissors (optional)
internet access

LEARNING OBJECTIVES

- knowledge of anatomy: structure & function (birds & humans)
- increased understanding of scale & measurement

STRUCTURE & ACTIVITIES

Using the provided slides & accompanying worksheets, walk your students through the following sections (can be broken up into multiple lessons):

- **1st:** Ask students to utilize their existing knowledge to broadly compare & contrast birds & humans using the Venn diagram.
- **2nd:** Specifically look at the structure & function of arms vs. wings.
- **3rd:** Working in pairs, have students measure their own wingspans by laying down & marking the tips of their "wings" (fingertips). (**See the last section of this document for an optional art activity here**). Have students measure their wings in inches and record their approximate wingspan, weight & height on their worksheets. Using the internet, have students search for a bird with about the same wingspan. They will need to record the name, wingspan, weight & height of the bird. Next, discuss as a class any patterns they see, using the slides as a guide. A simple "what bird has a xx inch wingspan" should do the trick to find a matching bird.
- **4th:** Follow the slides to facilitate a discussion on whether, based on the comparison between them & the bird with the same wingspan, the students think they would be able to fly if they had wings?



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STRUCTURE/ACTIVITY CONTINUED:

- **5th:** Watch the video with your class, pausing at appropriate intervals to allow them to fill out the rest of their comparison chart, helping as is appropriate to their learning level.
- **6th:** Once again discuss as a class if they think it would be possible for humans to fly if we had wings instead of arms. Working in small groups, have them record their thoughts on the space provided on their worksheet
- **7th:** Optional activity to imagine what it might be like to fly. This activity is ideal if you can take a 5-10 minute outdoor break to have students sit quietly and imagine their senses in flight, then write & draw their thoughts.

ASSESSMENT

Evaluate student worksheets for completion & participation. Ideally students will participate on written, vocal, and artistic levels.

OPTIONAL ART PROJECT

This activity is meant to create an artistic, full sized representation of their wings. The steps are as follows:

- Rather than having students simply measure their wingspans in pairs have them roll out a sheet of butcher paper large enough for their wingspans. In pairs they will mark their "wingtips" shoulders, elbows & wrists.
- Students will then draw out wings that match these points. They can base the coloration/shape on the bird they find or freely design their own wings.
- Have students use paint, markers or any available coloring utensil to color in their wings, taking care to mark the joint locations.
- When the paintings/drawings are complete & dry have them cut out their wings. Wings make great classroom decoration!