



Gerhard Gellinger

Heron Wingspan Shadows

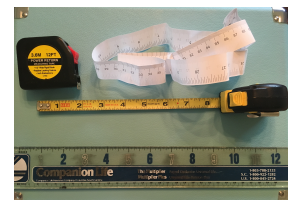


Elementary Students

Time: 1.5 hours

Supplies:

- ✓ Heron & Person templates
- ✓ Measuring tape, ruler etc.
- ✓ Scissors
- ✓ Flashlight
- ✓ 2 boxes, toilet paper rolls, tubes etc. (Can also use 2 pencils instead)



How To:

1. Choose boxes, rolls etc.

See if you have any boxes or tp rolls in your recycling bin. You need at least one for the heron and person. Cut away any box taps so you can see through it, like a tunnel.



2. Pick Best Template Sizes

Determine which size template will work best! The template should fit neatly inside the roll/box with the arms/wings gently reaching the width of the box, without spilling over. (You may also draw your own person and heron if you would like instead of the template).



3. Putting it all together

Cut out your chosen heron & person template. Gently tape your templates to the rolls/boxes. I recommend taping the arms and wings to the box. If you are using pencils instead, tape the pencil to the bottom of each template.



4. Grab Your Flashlight

Enjoy making shadows on the wall of your person and heron. Compare the wingspans. Move the flashlight closer and farther away to make the wingspans increase and decrease.



5. Send in photos of your Heron creations or herons on the Elizabeth River so we can celebrate

Send Photos: rdunbar@elizabethriver.org
Post on Facebook - Elizabeth River Project





SCIENCE BEHIND THE EXPERIMENT

1. Students learn what a wingspan is and how it differs between herons and humans.
2. The wingspan length of mature being, will vary from species to species. A human's wingspan, is also the same length as their are tall.
3. Students find objects around their house the same length as a heron's wingspan. Students design and build models of a heron and person's wingspan, based on what is available nearby.

Words:

Wingspan – the distance between the tip of one wing and the tip of the other wing. Human's wingspan, from finger to finger, is the same length as their height.

Virginia Standards of Learning:

This is a **STEAM** (Science, Technology, Engineering, Art and Math) that addresses multidisciplines and grade levels. http://www.doe.virginia.gov/testing/sol/standards_docs/

Science: Wingspan human & heron, Model of Best Fit, Prediction and Hypothesis

Technology: Using Simple Tools, Measuring

Engineering: Constructing a Model, Trial and Error, Problem Solving

Art: Drawing person/heron, Building a Model, Manipulation of Materials, Cutting work

Math: Wingspan Length, Scale and Size Comparison.





