

3rd Grade Activity: Adaptation Challenge

Animals have a variety of amazing adaptations that help them survive.

(NGSS Disciplinary Core Ideas 3-LS3.B – Variation of Traits; 3-LS4.C – Adaptation)

Pre-Activity Questions

- What is an adaptation?
- What is the difference between a physical and behavioral adaptation?

Thumbs Up for Thumbs Activity

- Let's think about some adaptations we have as humans. Do we have opposable thumbs? Eyes? Nose? Teeth?
- Looking at the **animal adaptation pictures**, let's talk about what adaptations you see and how those adaptations might help the animals. Are these the same or different from our adaptations?
- Using the **pictures of primates** with their opposable thumbs on their hands and feet, tell me about how their opposable thumbs help them survive in their habitat.
 - Their opposable thumbs allow them to grab and manipulate objects. They can use them to create tools to get food as well as for hanging onto branches.
- Let's think about how opposable thumbs are a particularly unique and useful adaptation.

Where'd my thumbs go?

Materials

- Animal adaptation pictures
- Opposable thumbs pictures
- Pennies (Instead of pennies you could use marbles, paper clips or pencils.)
- Stop watch
- Roll of masking tape
- Pencils/pens
- Cups or Jars
- Several lengths of string in 12 inch sections
- Recording sheet/scrap paper

Instructions

1. Use the **masking tape** to tape the thumb of your writing hand to their palm.
2. Use the **pencil** to write your name two or three times on a piece of **scrap paper**.
3. Next, take the length of **string** and tie a knot or bow.
4. Next, count out **10 pennies**. Using the **stopwatch**, see how many pennies you can put in the **cup** within 20 seconds. Only pickup one penny up at a time!

Post-Discussion Questions and Resources

- How well did each activity work without using your thumb?
- Why was it harder?
- After your experience, what are some of the advantages that an animal with an opposable thumb would have?
- Why is an opposable thumb important for many human activities?
- What would life be like for humans without an opposable thumb?
- For more information on opposable thumbs and physical adaptations, check out these videos:
 - Video: [Opposable Thumbs](#)
 - Video: [NatGeo - Weird Animal Adaptations Playlist](#)