

LOOKING AT CHIMPANZEES



LESSON 1

What Makes A Chimpanzee Special?

Grade Level: 2-3 | Subject Areas: Science, Math | Time Frame: 1 hour
Background Information: **Chimpanzee Adaptations: Built for Life in the Rainforest (pages 10-11)**

VOCABULARY:

Adaptation, arm span

STUDENTS WILL BE ABLE TO...

- Define the term adaptation
- Describe why adaptations are important for an organism's survival
- Give at least three examples of chimpanzee adaptations and explain how these adaptations help chimpanzees survive in the rainforest
- Use simple measurements to make comparisons between adaptations of chimpanzees and people

WHAT YOU NEED

- Movie trailer from www.disneynature.com/chimpanzee
- *Amazing Apes!* PowerPoint
- Activity Sheet 1A: *Comparing Hands*
- Activity Sheet 1B: *Comparing Feet*
- Activity Sheet 1C: *How Do You Measure Up To A Chimpanzee?*
- Measuring tape, rulers or yard sticks for students

LEARNING ACTIVITIES

1. Preview the film **CHIMPANZEE** using the movie trailer on www.disneynature.com/chimpanzee. Ask students for their observations after watching the trailer: Where do chimpanzees live? What do chimpanzees look like? How might the chimpanzees spend their day?
2. Introduce the term adaptation. Show the class a picture of a chimpanzee or watch the movie trailer again. Ask students to identify what body parts might help a chimpanzee survive in the rainforest. Review these adaptations with the class using the *Amazing Apes!* PowerPoint.
3. Discuss the form and function of a chimpanzee's hands and feet. Have students compare their own handprint and footprint to a chimpanzee's using activity sheets 1A and 1B.
4. To further investigate chimpanzee adaptations, gather students into small groups and distribute rulers or measuring tape to each group. Students should work together to take measurements of their arms, legs, hands and height and record these measurements using activity sheet 1C. Have students compare their measurements to other students' measurements. Discuss reasons for similarities and differences.

WRAP UP

5. Follow-up your class discussion with these questions:
 - Define the term adaptation in your own words and explain why an adaptation is important for an organism's survival. *An adaptation is a trait that allows an animal to survive in its environment. Without adaptations, organisms would have difficulty finding food, water and shelter, may not be able to escape predators or defend themselves. Ultimately, without adaptations, an organism may not be able to survive in its environment.*
 - Provide three examples of chimpanzee adaptations and describe how these adaptations help a chimpanzee survive. *Chimpanzees have many amazing adaptations. Students should list at least three examples from the adaptations provided on pages 10 and 11 of the background information and connect these adaptations to their purpose (for example, chimpanzees have strong, muscular arms for climbing and moving through trees).*
 - Explain what would happen if a chimpanzee was placed in a different ecosystem, such as the ocean, desert or arctic tundra. *Chimpanzees are adapted to the rainforest and would not be able to survive in most other ecosystems. For example, chimpanzees would not be able to withstand the extreme climates of the desert or arctic. Similarly,*

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What Makes A Chimpanzee Special? (2 of 2)



chimpanzees have long arms for climbing but they also prohibit swimming. This would make living in the ocean impossible.

- Describe any similarities between the physical adaptations of chimpanzees and people.
Chimpanzees and people have the ability to walk upright, have color and 3D vision, a good sense of hearing and smell, large brains, hair covering their body, opposable thumbs and fingernails.
- Which is greater, a chimpanzee's height or arm span? Compare this to your measurements and explain any differences. *A chimpanzee's arm span is about one and a half times its height while people have an arm span that is about equal to their height. This difference is the result of adaptations! Chimpanzees use their long arms to climb and swing through trees. Chimpanzees also "knuckle-walk" on all fours with their fingers curled under and their knuckles supporting their weight.*
- How do a chimpanzee's handprint and footprint compare to yours? Using your knowledge of chimpanzee adaptations, explain any differences. *A chimpanzee's handprint and footprint are much larger in size! Also, the fingers are longer and the thumb is shorter. Long fingers and a short thumb allow chimpanzees to grab branches while moving through the treetops.*

EXTENDING THE LESSON: SCIENCE

Option 1: Use the interactive cards from Lesson 6 to discuss different types of rainforest animal adaptations. Identify what body structures help each of these animals survive in the rainforest and create a chart to compare these adaptations. Encourage students to use some of these adaptations to draw or build their own imaginary rainforest animal. Each student should present their animal to the class and explain where the animal spends its time, how it moves, communicates, catches food and avoids predators.

CONNECT WITH NATURE

Take a class trip to a local AZA-accredited zoo or aquarium to learn more about animal adaptations. Instruct students to choose their favorite animal to observe. Students should take a picture of their animal and record any adaptations their animal has using a data sheet or journal. Upon returning to the classroom, use students' pictures and field notes to compare the types of adaptations they observed. Engage students in a class discussion to connect an organism's adaptations with its environment.

Prominent ears, forward facing eyes, a flattened nose and a large, flexible mouth are all adaptations that help a chimpanzee survive in the rainforest.



Like people, chimpanzees enjoy playing together. Play is an important behavioral adaptation.

LESSON
1

ACTIVITY
SHEET **1A**
for grades 2-3

LOOKING AT CHIMPANZEES

What Makes A Chimpanzee Special?

Comparing Hands

Trace your hand next to this life-sized drawing of an adult chimpanzee's hand!

How do they compare?

Chimpanzee Hand

Your Hand



LESSON 1

ACTIVITY
SHEET 1B
for grades 2-3

LOOKING AT CHIMPANZEES

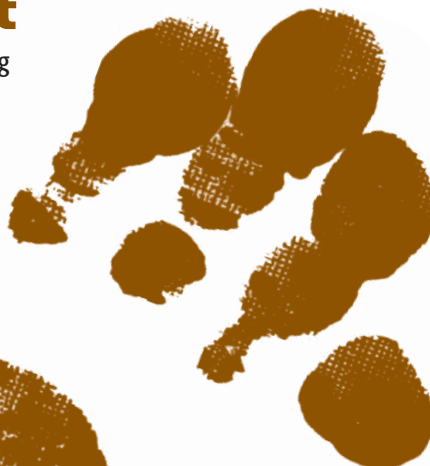
What Makes A Chimpanzee Special?

Comparing Feet

Trace your foot next to this life-sized drawing of an adult chimpanzee's foot!

How do they compare?

Chimpanzee Foot



Your Foot



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LESSON 1

ACTIVITY
SHEET 1C
for grades 2-3

LOOKING AT CHIMPANZEES

What Makes A Chimpanzee Special?



How Do You Measure Up To A Chimpanzee?

Chimpanzees have special *adaptations* that make them built for the life in the rainforest. Use a ruler or measuring tape to compare yourself to this adult female chimpanzee.



Long arms help a chimpanzee climb, swing and move through the trees. A chimpanzee's arms are longer than its legs.

Measure your arms and legs in centimeters.

How do they compare?

Arms: _____ Legs: _____

Which is longer? _____



A large arm span helps a chimpanzee reach between branches. A female chimpanzee's arm span is about 136 centimeters.

How big is your arm span in centimeters?



Chimpanzees have large palms, long fingers and short thumbs to grasp branches. A chimpanzee's hand is about 23 centimeters long from the wrist to the finger tips.

How long is your hand in centimeters?



Chimpanzees usually walk with their knuckles on the ground. But standing, an adult chimpanzee is about 100 centimeters tall.

How tall are you in centimeters?



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