Lesson Plan: White-Faced Capuchin Monkey

Summary

This lesson explores the evolutionary history, unique behaviors, and conservation status of the white-faced capuchin monkey. Students will examine how this species developed over millions of years, investigate its unusual survival strategies, and discuss its current role in ecosystems and human society. The lesson uses factual data to support inquiry, critical thinking, and cross-disciplinary connections in science and social studies.

Objective

Students will analyze the evolutionary development, behavioral adaptations, and conservation context of the white-faced capuchin monkey using structured facts and guided discussion.

Standards

- NGSS MS-LS4-2: Apply scientific ideas to construct an explanation for the anatomical similarities and differences among modern organisms and between modern and fossil organisms.
- C3 D2.His.1.6-8: Analyze connections among events and developments in broader historical contexts.
- CCSS.ELA-LITERACY.RI.6.1: Cite textual evidence to support analysis of what the text says explicitly.

Materials

- 9 Fun Facts list
- Worksheet
- Optional: whiteboard, projector, images of capuchin monkeys, short video clips

Introduction

Begin with a class discussion: What do students know about monkeys? Have they heard of capuchins? Introduce the white-faced capuchin and explain that today's lesson will explore its history, strange behaviors, and current status.

Activity

Read the 9 Fun Facts aloud as a class. Break students into small groups to discuss which facts surprised them most and why. Each group will choose one fact to explore further and present a short explanation to the class. Then, students will complete the worksheet individually.

Assessment

Students will be assessed on their participation in group discussion, accuracy and completeness of their worksheet, and ability to connect facts to broader scientific or social concepts.

Rubric

Criteria	Excellent (4)	Good (3)	Fair (2)	Poor (1)
Content Understanding	Demonstrates deep understanding of all facts	Understands most facts with minor confusion	Understands some facts with gaps	Misunderstands or omits key facts
Discussion Participation	Actively contributes and builds on others' ideas	Participates with relevant comments	Limited participation or off-topic	No participation
Worksheet Completion	All answers complete and accurate	Most answers complete and mostly accurate	Some answers missing or incorrect	Incomplete or mostly incorrect
Technology Connections	Makes clear connections to digital tools or media	Mentions tools or media with some relevance	Vague or minimal tech references	No tech connection made

9 Fun Facts:

1. Capuchin monkeys belong to a primate lineage that split from other mammals over 60 million years ago. Primates first appeared shortly after the extinction of the dinosaurs. These early primates were small, tree-dwelling mammals with grasping hands and feet. Over time, they evolved into different groups, including monkeys, apes, and humans. Capuchins are part of the New World monkeys, which diverged from Old World monkeys around 40 million years ago.

2. The capuchin monkey family split from other New World monkeys about 25 million years ago. This group includes squirrel monkeys and other small primates found in Central and South America. Capuchins developed more complex brains and social behaviors than many of their relatives. Their genus, Cebus, is known for intelligence and adaptability. These traits helped them survive in a wide range of forest environments.

3. The white-faced capuchin, Cebus capucinus, has existed in its modern form for at least 2 million years. Fossil evidence and genetic studies suggest this species has been around since the early Pleistocene. They are native to Central America and parts of South America. Their range includes countries like Honduras, Costa Rica, and Panama. They are one of the most widespread and recognizable monkeys in the region.

4. White-faced capuchins use tools like rocks and sticks to get food. On Jicarón Island in Panama, males have been seen using stones to crack nuts and shells. They even carry tools to specific spots to use them. This is rare among monkeys and shows how clever they are. Most females in that population were not seen using tools, which surprised researchers.

5. They sometimes pee on their hands and feet to mark territory or cool off. This behavior is called urine washing. Scientists think it helps with scent marking or temperature regulation. It might also play a role in social bonding. It’s weird, but it works for them.

6. Capuchins have been seen rubbing millipedes on their fur to repel insects. The millipedes release chemicals that act like bug spray. The monkeys seem to know this and use them on purpose. It's one of the few examples of animals using other species as medicine. It's gross and smart at the same time.

7. They can live up to 50 years in captivity and 25 years in the wild. That's a long time for a monkey their size. Their long lives mean they have time to learn complex behaviors. They also form strong social bonds over many years. In the wild, survival depends on staying with the group.

8. White-faced capuchins are listed as Least Concern but face growing threats. Habitat loss and hunting are the biggest dangers. They are protected in many parks and reserves. Some populations are stable, but others are shrinking. Conservation groups monitor their numbers closely.

9. Capuchins are sometimes used in service roles and the pet trade, though both are controversial. In the United States, trained capuchins have helped people with disabilities. However, keeping them as pets is discouraged due to their complex needs. There are fewer than 100 trained service capuchins in the country. Most live in sanctuaries or protected habitats.

Worksheet

Name_____
Date_____

Review

1. How long ago did primates first appear?
2. What group do capuchins belong to within the primate family?
3. How long has the white-faced capuchin existed in its modern form?

Discussion

4. What is one unusual behavior capuchins use to repel insects?

5. Why might urine washing be helpful to capuchins?

Data Analysis

6. Compare the lifespan of capuchins in the wild and in captivity. What might explain the difference?

7. What does the use of tools suggest about capuchin intelligence?

Reflection

8. Why is it important to protect species like the white-faced capuchin?

9. What surprised you most about their behavior or history?