

Teacher's Guide to Earth's Wild Ride

Pre-trip Activities

These four activities prepare students for their virtual trip to the moon.

Activity 1: The Earth and Moon: How Big and How Far

Activity 2: The Lunar Olympics – going to Earth – visiting asteroids

Activity 3: Keeping Cool on the Moon

Activity 4: Designing a liquid cooling garment (JGC)

Post-trip Discussion of Show

Use these questions to discuss the Earth's Wild Ride show. Give students a copy of the script with photographs from the show. The text and images will help students remember what they experienced during the show. These discussion questions extend the experience in the show.

1. Think about what it's like to look at the full moon. How does this compare to what lunar colonists see when they look at the full Earth? How does moonlight change the landscape of Earth? How does Earthlight change the landscape of the moon?
2. Why do scientists expect to find water at the Moon's poles? Where did the water come from? What didn't it melt?
3. Would you want to visit Aiken Station? What you want to do while you were there?
4. Imagine you could be an email pen pal with Maria or Jason. Write your first email telling about Earth and asking about Aiken Station.
5. Take a flashlight and a ping pong ball. Cast a shadow of the ping pong ball on a wall. Use this demonstration to explain how a solar eclipse looks from the Moon – and from the Earth.
6. What natural resources did humans use in Europe during the last Ice Age?
7. What natural resources do lunar colonists use on the Moon?
8. Why do stars twinkle in Earth's sky?
9. Describe how a volcanic eruption changes the land.
10. How can an asteroid impact affect the Moon? ...the Earth?
11. Scientists think that an asteroid impact may have caused the extinction of the dinosaurs. How could we humans prevent our extinction if another large asteroid hit Earth?
12. Why does it rain on Earth and not on the moon?
13. Explain how canyons are formed on Earth.
14. Why did the grandfather decide to retire to the moon? Do you think he made the right decision?

Post-trip Activities

Activity 5: Designing a Lunar Colony

Activity 6: The Effects of a Blanket of Air

Activity 7: Keeping Warm or Ice Age

Activity 8: Watching Mt. Etna

Activity 9: IMPACT

Activity 10: World of Water

Activity 11: Following the Grand Canyon

Activity 12: Picnic on the Moon