Resources for Treasure Hunt in Earth's Attic

Time Lineup Activity

Overview

For children age 12-17 and families.

Work in groups or as a family to place the Event Cards in a timeline of events that have occurred throughout the history of Earth and the Moon.

More information and graphics are available in the <u>Evolution of our Solar System gallery</u>.

What you need:

- Event Cards
- Answer sheet for events
- Open area or hallway for participants to stand in order OR floor or table space to lay out the cards

Procedure:

Here are two suggestions for completing the activity:

Option 1: Human Timeline of the Earth-Moon History (for larger, single groups)

- Share with all participants that they will be using their bodies to create a timeline of the Earth's and Moon's shared history.
- Provide each person with an event card.
- Invite everyone to work together to determine which events happened first, second, third, and so on.
- Have them arrange themselves as a human timeline across the room.
- Compare their arrangement with the answers in the <u>answer sheet.</u>
- Discuss the information about the rocks:
 - Which rocks are older, rocks from the Earth or rocks from the Moon? (The Moon rocks are older.)
 - How common might old Moon rocks be? (Very common; most rocks from the Moon are billions of years old)
 - Why might these old Moon rocks be important? (They contain information about things that happened to Earth and the Moon.)

Option 2: Card Timeline of the Earth-Moon History (for a single or multiple, smaller groups)

- Divide the participants into groups of 3-5 people
- Provide each small group of people with a complete set of event cards.
- Ask the groups to work together to arrange the events in order (floor or table space is needed to lay out the cards).
- Share the answer sheet so that the groups can compare their results.
- Discuss the information about the rocks:
 - Which rocks are older, rocks from Earth, or rocks from the Moon? (The Moon rocks are older.)

- How common might old Moon rocks be? (Very common; most rocks from the Moon are billions of years old)
- Why might these old Moon rocks be important? (They contain information about things that happened to Earth and the Moon.)

Websites for Further Exploration

The Oldest Earth Rock Ever Found – on the Moon

solarsystem.nasa.gov/news/820/earths-oldest-rock-found-on-the-moon

In a 2018 study, lunar scientists found a small piece of an Earth rock in an Apollo 14 sample. This small piece of Earth may be the oldest ever found.

NASA's Moon Website

moon.nasa.gov

This website offers information about Earth's Moon including an interactive Moon globe, news about the Moon, lunar missions, a gallery of images, facts and figures, and other resources.

Lunar Science and Exploration Posters

www.lpi.usra.edu/education/moonPosters

This series of three posters from the LPI provides a detailed description of what past and current lunar exploration has taught us about the Moon and how to prepare for future missions to the Moon.

Lunar South Pole Atlas

www.lpi.usra.edu/lunar/lunar-south-pole-atlas

NASA has been directed to land astronauts at the lunar south pole by 2024. To assist NASA and the lunar community, the LPI has compiled an online atlas that consists of a series of maps, images, and illustrations of the south polar region.