

Students: Please fill out this worksheet as you explore our exhibit halls.

LEVEL

4 Space Hall

Section A

Space Shuttle Model

Topic: Earth and Space Science

- A1.** The astronaut performing an extravehicular activity (EVA)—i.e., a spacewalk—is connected to a device in the payload bay; what is the device?



Located near the Space Hall entrance.

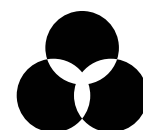
- A2.** List some possible uses for this object:

Section B

Rocket Chair

Topic: Earth and Space Science

- B1.** Test out or observe the rocket chair. What makes the chair move?



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Section B (cont.)

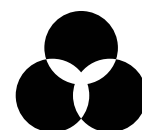
- B2.** Can you think of any games or toys that work in a similar way?
- B3.** Astronauts wear a device called a simplified aid for EVA rescue (SAFER). Commonly referred to as a “jet pack,” the SAFER works using Newton’s Third Law. This law states that for every action (force), there is an equal and opposite reaction. If an astronaut needed to move forward to get to safety, in what direction would they aim their SAFER?
- B4.** Use Newton’s Third Law to explain how a person on a skateboard makes the skateboard move.

Section C

The Galaxies

Topic: Earth and Space Science

- C1.** What is the closest galaxy to our own Milky Way galaxy?
- C2.** How far away is it?



Section D

Decoding Starlight

Topic: Earth and Space Science

D1. Use the Sun's spectrum and spectral lines to determine what elements the Sun is made from. Select all answers that apply:

- Hydrogen
- Calcium
- Iron
- Magnesium



Section E

Earth Moon Sun Video

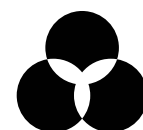
Topic: Earth and Space Science

E1. How many times does the Moon orbit Earth each year?

E2. What causes the seasons on Earth?

E3. What happens during a solar eclipse?

E4. What happens during a lunar eclipse?



Section F

The Cosmic Shower

Topic: Earth and Space Science



F1. What is a cosmic ray?

F2. Draw what you see inside the cloud chamber.

F3. How often do supernovas happen in our galaxy?

LEVEL

6

The Bruce Poon Tip Living Earth Hall

Section G

Great Lakes Watershed Map

Topic: Biology



G1. Why does the map of the Great Lakes watershed show so much land?

G2. Read the panels titled “Back from the Brink: Saving Lake Erie.” What substances polluted Lake Erie in the 1960s?

G3. What was done to restore Lake Erie?

Between ^{LEVEL} 5 & ^{LEVEL} 6

Section H

Carbon Display

Topic: Chemistry

H1. What do you think whale blubber and petroleum have in common?



Located in the stairwell between the Hot Zone and Valley Marketplace.

H2. Find carbon-based objects in the display case that might have the following types of impact:

Environmental:

Social:

Economic:

H3. Choose one object above and explain why you chose it:

H4. Tortoise shells and ivory were once used as luxury materials for personal and household items. Many of these items are now made of plastic. Do you think this change in material is a positive or negative change? Why?