The H.O.T. Spot

By Jason S. McIntosh, Ph.D.

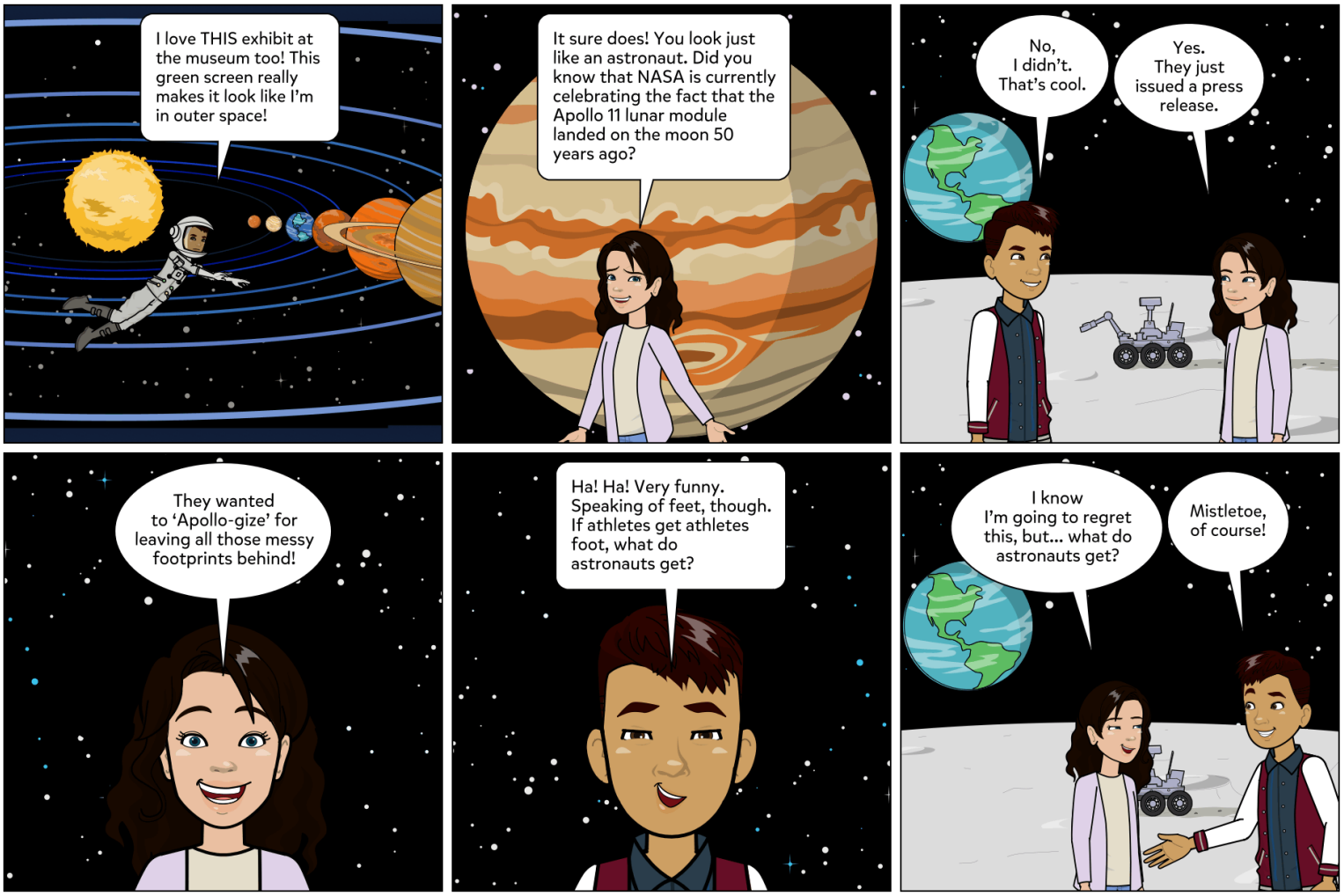
A WEEKLY PUBLICATION FOR CURIOUS KIDS

Issue #5 (May 6, 2020)

CAUTION: Participation may lead to a lack of boredom and a tired brain!

FEATURED TOPIC THIS WEEK:

Our Solar System



Our Solar System

Did You Know?

For thousands of years, people thought the Earth was the center of the universe. This may seem silly now, but they did not have the benefit of modern technology. Now, new discoveries are made all the time. Unmanned spacecraft have visited all eight of our solar system's planets and at least five dwarf planets have been found (Pluto, Ceres, Eris, Makemake, & Haumea).

Help Wanted

There are several careers focused on studying outer space (e.g. astronomers, aerospace engineers, etc.). The most well known, of course, is the astronaut. Aspiring astronauts must meet the requirements and possess the skills shown below.

Requirements

- A masters degree in a STEM field
- 1,000 hours of pilot in-command on a jet
- Pass NASA's long duration flight physical
- Be a U.S. citizen

Necessary Skills

- Intelligence
- Adaptability
- Physical and mental endurance

Virtual Field Trip

Take a tour of the Kennedy Space Center in Florida:

https://youtu.be/fAq5rjie02c

Would You Rather

Visit Saturn or Jupiter?

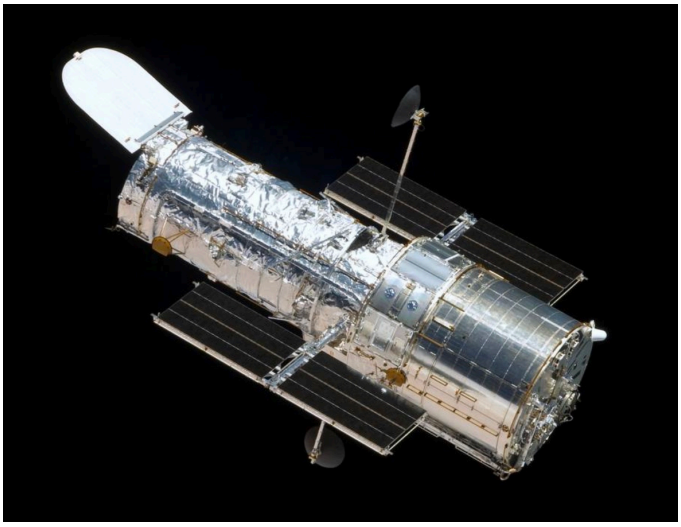
Bio-Profile

Sally Ride was the first American woman in space. She joined NASA in 1978 and flew on the Challenger space shuttle twice, once in 1983 and once in 1984. She later wrote 6 books for kids.



Mystery Picture of the Week

Can you guess what you are looking at? After doing your research, turn your paper upside down to check your answer.



ANSWER: This is the Hubble space telescope. It was launched into space 30 years ago and has since made over 1.3 million observations of the universe.

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The H.O.T. Higher Order Thinking Spot

What do you think the featured topic should be next week? Email your teacher with your thoughts.

Project-Based Bonanza

Choose one or more of the projects below to complete this week.

CHOICE A

What is your favorite toy? Predict how it might behave in zero gravity. Find evidence to support your theory.



CHOICE B

Scientists estimate it would take 7 to 9 months for a space shuttle to travel from Earth to Mars. Imagine you are one of the lucky crew members selected to take the inaugural voyage to the red planet. What supplies would you pack? Make a list and write a justification for each item on your list.

CHOICE C

Gather a balloon, tape, scissors, a drinking straw, and 10 feet of string. Thread the string through the end of the straw. Stretch and tape the ends of the string between two chairs about 10 feet apart. Blow up the ballon and hold it closed while taping it to the straw. Pull the straw to one end and let go!

Quiz Mania

How much do you know about the planets?

1) Which planet is the hottest?
2) Which planet rotates on its side?
3) Which planet has the largest ocean?
4) What lies between Mars and Jupiter?
5) On which planet is a day almost as long as a year?
6) On which planet would you weigh over twice as much as you do on Earth?
7) Which planet is named after the Roman god of agriculture and abundance?

Check here- astroacademy.site44.com

Brain Teaser of the Week

Use the clues below to determine which of the eight planets the space probe is orbiting.

1) The planet has more than one moon.

2) The planet does not have rings.

3) The planet is smaller than both of its neighbors

Use the link here to help you:
astroacademy.site44.com

Digging Into Depth and Complexity

In past issues, we have learned about the Kaplan Depth and Complexity Model icons *unanswered questions* and *ethics*. A third important icon is **change over time**.



This icon stands for how people, ideas, events, and other things change over time. Using this icon means you will have to compare and contrast something before and after a given time period. Think about the change over time icon while reading the scenario below.

Scientists now estimate our solar system to be over 4.6 billion years old. As you read in the 'Did You Know' section, our understanding of the universe has changed over time. Imagine you found a time machine and went back to the early 1500's. What were the most common beliefs about the solar system at that time? How would you convince them that many of their views are incorrect? It might be harder than you think! Research Nicolaus Copernicus to find out more.

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