

## Space Odyssey Online Teacher's Guide

# Space Explorers Trading Cards

Previsit Activity for Space Exploration



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**Grades 4-8**

**CDE Standards**

Science: 4.4e,5d

Language Arts 1,2,3,4,5,6

History: 1,2,4

## **Preparation and Materials**

**Estimated Preparation Time:** 30 minutes

**Estimated Activity Time:** Two or more time periods of 30 minutes each

## **Materials**

Copies of reproducible trading card

Pencils

Crayons or colored pencils

Astronaut biographies

## **Learning Goals/Objectives**

Students will

- Research space explorers
- Describe the training necessary to become an astronaut or space explorer
- Compare various jobs of astronauts during a given mission and the contributions of other space explorers

## **Connection to *Space Odyssey***

When visiting *Space Odyssey*, visitors will be "transported" into space and onto the surface of Mars. At our Mars Outpost, visitors will be able to communicate with an astronaut on the surface of Mars. The astronaut will be performing many experiments to learn more about the surface of Mars. In this activity, students will learn about the explorers who have made important discoveries about space and space travel.

## **Advanced Preparation**

1. Locate several biographies about astronauts and space explorers at your students' reading level.
2. Reproduce copies of the trading card sheet for each student in your class.

## **Classroom Activity**

1. Have students choose an astronaut or space explorer to research. Provide several kinds of resources for students to utilize including biographies and Web sites.
2. After students have read and gathered information about their explorer, have them complete the space explorer trading card activity

- sheet. On the front of the trading card they will draw a picture of their space explorer. On the back of the trading card they will provide important information about their explorer.
3. Allow students to present their research either to small groups or to the whole class.
  4. Publish the trading cards in a classroom resource book.

### **Variations/Extensions**

1. Have students work in pairs or small groups to list similarities and differences among the space explorers they studied.
2. Have students work in small groups to design trivia games about astronauts and space exploration using the classroom resource book.

### **Resources**

#### **Books**

Andronik, Catherine. *Great Minds of Science: Copernicus*. Berkeley Heights, N.J.: Enslow Publishers, Inc., 2002.

Bredeson, Carmen. *Countdown to Space: Gus Grissom, A Space Biography*. Berkeley Heights, N.J.: Enslow Publishers, Inc., 1998.

Bredeson, Carmen. *Countdown to Space: Neil Armstrong, A Space Biography*. Berkeley Heights, N.J.: Enslow Publishers, Inc., 1998.

Cole, Michael. *Countdown to Space: Vostok 1, First Human in Space*. Berkeley Heights, N.J.: Enslow Publishers, Inc., 1995.

Datnow, Claire. *Great Minds of Science: Edwin Hubble, Discoverer of Galaxies*. Berkeley Heights, N.J.: Enslow Publishers, Inc., 2001.

Gow, Mary. *Great Minds of Science: Johannes Kepler, Discovering the Laws of Planetary Motion*. Berkeley Heights, N.J.: Enslow Publishers, Inc., 2003.

Gow, Mary. *Great Minds of Science: Tycho Brahe, Astronomer*. Berkeley Heights, N.J.: Enslow Publishers, Inc., 2002.

Hightower, Paul. *Great Minds of Science: Galileo, Astronomer and Physicist*. Berkeley Heights, N.J.: Enslow Publishers, Inc., 1997.

Holden, Henry. *Collective Biographies: American Women of Flight, Pilots and Pioneers*. Berkeley Heights, N.J.: Enslow Publishers, Inc., 2003.

Jeffrey, Laura. *Countdown to Space: Christa McAuliffe, A Space Biography*. Berkeley Heights, N.J.: Enslow Publishers, Inc., 1998.

Jeffrey, Laura. *Countdown to Space: Guion Bufford, A Space Biography*. Berkeley Heights, N.J.: Enslow Publishers, Inc., 1998.

Kramer, Barbara. *Countdown to Space: John Glenn, A Space Biography*. Berkeley Heights, N.J.: Enslow Publishers, Inc., 1998.

Kramer, Barbara. *Countdown to Space: Sally Ride, A Space Biography*. Berkeley Heights, N.J.: Enslow Publishers, Inc., 1998.

Schraff, Anne. *Collective Biographies: American Heroes of Exploration and Flight*. Berkeley Heights, N.J.: Enslow Publishers, Inc., 1996.

Yannuzzi, Della. *Countdown to Space: Mae Jemison, A Space Biography*. Berkeley Heights, N.J.: Enslow Publishers, Inc., 1998.

### **Web sites**

<http://www.nauts.com>

This Web site is an outstanding resource for the space exploration enthusiast. It comes complete with a time line of space missions, information about individual space vehicles and their missions, and biographies of several astronauts.

<http://spaceflight.nasa.gov/history/index.html>

NASA has developed a Web site with information about the history of space missions, including Mercury, Gemini, Apollo, and space shuttle missions. It also includes time lines and biographies for each individual launch program.

<http://www.jsc.nasa.gov/Bios/>

This Web site lists biographies of active and former astronauts for NASA, as well as international astronauts who have worked with NASA.

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Educational Background: \_\_\_\_\_

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