

Pre-Trip Activities

The following information and activities are provided to help your students get the most out of their trip to the Discovery.



Program name: Spark!Lab Special

Standards addressed in the program:

Standards:

LANGUAGE ARTS:

SL.4.1 Engage effectively in a range of collaborative discussions.

L.4.6 Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal precise actions, emotions, or states of being and that are basic to a particular topic.

SCIENCE:

NS 5.A.5 Students know how to plan and conduct a safe and simple investigation.

NS 5.B.2 Students know technologies impact society, both positively and negatively.

NS 5.B.3 Students know the benefits of working with a team and sharing findings.

Key Vocabulary	Literacy Connection (books to read):
prototype	1001 Inventions That Changed the World by Jack Challoner
Inventor	Mistakes that Worked by Charlotte Jones
Invention process	Girls Think of Everything: Stories of Ingenious Inventions by Women by Catherine Thimmesh
	They All Laughed... From Light Bulbs to Lasers: The Fascinating Stories Behind the Great Inventions That Have Changed Our Lives by Ira Flatow
	The Kid Who Invented the Popsicle: And Other Surprising Stories about Inventions by Don L. Wulffson
	So You Want to Be An Inventor? by Judith St. George
	Kids Inventing! A Handbook for Young Inventors by Susan Casey
	The Kids' Invention Book (Kids' Ventures) by Arlene Erlbach
	Imaginative Inventions: The Who, What, Where, When, and Why of Roller Skates, Potato Chips, Marbles, and Pie (and More!) by Charise Mericle Harper

Pre-Trip Literacy/Writing Activity: Thank you to an inventor

Standard: CCSS10 Read grade level nonfiction text in a variety of fields

Activity: Depending on the age of students this activity can be done individually, in pairs or as a whole class cooperative writing activity. Read one of the books listed above about inventors that have changed the world. Pick one inventor that invented something that you use regularly and write a thank you letter to that inventor explaining how their invention has changed your life.

Other related resources:

<http://edtech.kennesaw.edu/web/inventor.html>

Pre-Trip Content Activity

Standard: NS 5.B.2 Students know technologies impact society, both positively and negatively.

Activity: Visit the United States Patent Office kids website at

<http://www.uspto.gov/web/offices/ac/ahrpa/opa/kids/index.html> Review what a Patent/trademark and copyright is and why they are important. Read about the different kinds that are available. Play some of the fun online games and puzzles as a

class. When finished make matching card sets with the vocabulary words (patent, trademark, copyright, intellectual property etc.) on one card have the definition on another the other card the word. Have students move around the room reading the card to the person they are closest to when you stop playing music. Students switch cards when the music starts again and they move around the room. After doing this for several rounds you stop and have everyone pair up. Once they have found their partner they move to the outer edge of the room. Those that have not found a partner move to the center. Read over pairs as a class and discuss. Students in the middle will usually be able to figure out who is their partner with help from the class.