

## iCONN Learning Activity

### Explorers: Then and Now; Costs and Payoffs

**Level:** Elementary (Grade 4 - 6)

**Task:** As an extension to learning about European exploration in the 15<sup>th</sup> and 16<sup>th</sup> centuries, specifically the costs and benefits of exploration, students research modern day opportunities for exploration and discovery. Possible topics for research are: space exploration; deep-sea exploration; medical research; studies of animal behavior; recycling and reuse of waste materials; new forms of energy – solar, wind, etc. Each student will be required to use periodicals as a source type, as well as other print and nonprint formats. Each student will conduct “pre-search” on the six areas of exploration to narrow their topic selection. Based on his/her “pre-search,” students will create a pie chart to describe how he/she would allocate available government funds for exploration. After researching the area of exploration chosen, students will be required to produce an expository essay explaining the results of their research.

**Research Question:** Given limited government funding for exploration and discovery (research) that will lead to improvements in how people live, what area of exploration do you think should receive the most money?

**Content Area(s):** Social Studies, Science, and Language Arts

**State Content Standard(s):**

**Social Studies:**

Standard 13 / Grades 5-8

1. Explain how technological change and innovation improves a society’s productivity and economic growth.

**Science:**

SRC 3-5.2b

2. Read fiction and non-fiction science-related text, and compose narrative, expository, and persuasive texts.

**Language Arts:**

Standard “Communicating with Others” – employ research skills

3. Produce research reports that are accurately documented and in an appropriate format.

**iCONN Database(s):** *Kids InfoBits*

**Search Strategy:**

1. Go to <http://www.iconn.org/>
2. If the list of databases is not already showing, click on “Select iCONN resources”
3. Open *Kids InfoBits*
  1. Do a topic tree search by:
    - a. Clicking on the Science & Math icon
    - b. Clicking on the Space & Astronomy icon
    - c. Clicking on *Space Flight*
    - d. The results list returned is for “Reference” articles
    - e. Double click on an article title to access the article for reading
    - f. Go into other active (highlighted vs. grey) tabs to access additional information (e.g., *Magazines, Newspapers*)

**Alternate Search Strategy:**

1. Go to <http://www.iconn.org/>
2. If the list of databases is not already showing, click on “Select iCONN resources”

3. Click on *Kids InfoBits*.
4. Do an **advanced search** by:
  - a. Clicking on the blue *Advanced Search* button on the right side of the *Kids InfoBits* green banner on the top of the screen.
  - b. Enter the *search term* in the white box. (For example, *wind energy*)
  - c. Select the *search index type* from the drop down menu provided. (For example, *Full Text*)
  - d. Use the Boolean operator (*AND, OR, NOT*) as appropriate for your search.
  - e. Click on the *SEARCH* button.
  - f. Scroll down the list of magazine articles returned for your search. Click on an article title to access the article for reading.
  - g. Return to Advanced search by following the “breadcrumb trail”/ topic tree listed toward the top of the results list page
  - h. For more help on using *Advanced Search*, click on the *Help* icon in the *Kid InfoBits* green banner on the top of the screen. On the Help Screen, click on *Search Tips*.

### **Adaptations for Differentiated Learning:**

#### **Search Strategy for Higher Ability Students:**

1. Go to <http://www.iconn.org/>
2. If the list of databases is not already showing, click on “Select iCONN resources”
3. Click on the “Clear checkmarks” button
4. Click on the topic Newspapers
5. This should populate all newspapers in the category with a checkmark
6. Enter the search term in the search box above the listing of databases (For example, *animal behavior research*)
7. Wait for the “federated search” engine to compile a results list
8. Click on the number of results found in a given newspaper, found next to the newspaper’s name (e.g., *Hartford Courant*)
9. Scroll down the list of newspaper articles returned for your search
10. Click on an article title to access the article for reading, or, click on the Full-text icon below the article title and information
11. At the top or bottom of the page, look for the Print and Email buttons – print or email article, if desired
12. Also note the “Previous” and “Next” links at the top and bottom of the article. These allow you to page through articles without having to return to the results list
13. Click on the “back to results” link to return to the listing of article titles

#### **General Suggestions for Differentiation:**

- Vary the number of sources required. (lower performing - fewer, higher performing - more)
- Vary the number of formats (print vs. nonprint, i.e., lower performing- print only, mid-range - print or non-print, high performing - specify type of print format - periodical, reference, etc.)
- Vary number of subtopics assigned (lower performing - fewer, higher performing - more)
- Vary the number of "facts / details" per subtopic required (lower performing - fewer, higher performing - more)
- Vary the "rigor" of source citation (bibliographic format)