ALL ABOUT EXPLORING THE INTERNET
A Web-Based Tutorial for Students

Goal: **After this mini-unit, students will understand how to use the Internet more wisely and why it is an important skill.**

Lesson 1: *Just Because It's Out There Doesn't Mean It's Good*

Hunt for Explorers – Identifying accurate information on the Web

Lesson 2: *So How Do You Find the Good Stuff?*

Teacher/Librarian as resources
Know your subject
Use of evaluated sites & directories

Lesson 3: *Google, What?*

What is a search engine?
How does it work?
Basic search strategies

Lesson 4: *Where Exactly Am I, Anyway?*

Breaking the URL code
What to look for
What to avoid

Lesson 5: *How Could They Be So Wrong?*

Correcting the All About Explorers website
Writing a persuasive letter

LESSON 1
Just Because It's Out There Doesn't Mean It's Good

Objectives: After this lesson, students will
- ✓ know that some information available on the Internet is not valuable for research.
- ✓ understand the need to be familiar with a topic before beginning an Internet search for information.

Preparation:
- ✓ Set up computers (1 per pair of students) with selected Hunt pages already loaded and ready for students to work.
- ✓ Prepare 1 copy of Treasure Hunt worksheet per pair of students.
- ✓ Prepare a sign for each team of 4 researchers (to aid in group formation at end of "Treasure Hunt" portion of lesson.

Time	Activity
5 min	**Introduction** • Find out how many students have used the Internet before. "What is it?" • Explain that students will be studying Explorers this year in social studies • We have a cool activity on the Internet to get started with Explorers
20 min	**Treasure Hunt** • Assign students randomly to a team researching one of the explorers (4 students per team, divided into two pairs) • One pair of students works together at one computer to complete the Hunt on their explorer. • Students should select and answer *two* of the questions. If they finish early, they may complete the third. • Teams reconvene as a group of 4 to compare answers and notes. Discuss and answer the "Big Question."

15 min	**Group discussion**
	
	• Whole class discussion of findings and the "Big Question."
	• Key points to bring out:
	    ◦ Not everything on the Internet is useful
	    ◦ Be familiar with your topic first by reading books
	    ◦ Check facts with other sources

5 min	**Preview of future lessons:** • Introduce culminating activity—the next three lessons will provide students with the tools to correct the mistakes they found at the AllAboutExplorers.com site • Tools and skills to locate good information • Ability to evaluate web sites and other Internet sources

Names: _____

Explorer Treasure Hunt

Explorer: _____

Your mission: Find the answers to the three questions about your famous explorer. Use the two links on the web page to find the information you need. *Be careful!* Be good researchers and check both pages for each question so you get all the information you need. Write your answers below.

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1. _____

2. _____

3. _____

The Big Question: What are the similarities and differences in the information you found at the two sites?

_____

_____

_____

LESSON 2
So How Do You Find the Good Stuff?

Objectives: After this lesson, students will
  - ✓ understand that publication is a process of different people selecting the best work at each stage.
  - ✓ understand that Internet sites can be posted with no checking or selection.
  - ✓ recognize that not all Internet content is equally useful.
  - ✓ know a 3-step process for using the Internet effectively to locate information.
  - ✓ know the key similarities and differences between a subscription database and a subject directory.

Preparation:
  - ✓ Review Lesson 2 PowerPoint presentation for content prior to lesson. (Note that the presentation may need to be adapted for your specific situation before use.)
  - ✓ Collect sample books to use as examples.
  - ✓ Prepare a mock-up of a manuscript to represent books written but not sold.
  - ✓ Prepare copies of the Now You Try It! worksheet #2
  - ✓ Review subject directories and subscription databases available at your school to demonstrate to students.

Time	Activity
5 min	- Review Lesson #1, availability of misinformation on Internet. - Discuss why students often end up with bad information: poor search strategies
15 min	- Talk about use of librarian and teacher as primary resources. *Books first!* - Discuss the process of a book making into a library as compared to a website making it out on the Internet ○ **Book:** Author, Publisher, Editor, Bookstores, Reviewer, Librarian ○ At each level, poorly prepared materials are weeded out. ○ **Internet:** Author, Internet ○ No selectivity—anyone can publish
20 min	**"Easy as 1 – 2 – 3"** - Subscription databases are pre-screened for accuracy and relevance: ○ Worldbook Online ○ Nettrekker ○ Access PA Power Library (SIRS Discoverer, Searchasaurus) - Emphasize subscription nature: school would not pay for something that was not high quality - Subject directories are also screened and selected by experts: ○ KidsClick! ○ Librarians' Internet Index - These are free—less focused, but still high quality.

15 min	**Now You Try It!** • Students reconvene into pairs from Lesson 1 • Each pair finds one basic fact about their explorer (e.g. birthdate) in three sources: a book, a subscription database, and a subject directory. • Students should record the source (basic bibliographic information) and the fact on the Now You Try It! worksheet. • Students compare the information they found with the fact at AllAboutExplorers.com and explain how they know that AAE is incorrect. • Save the fact worksheets for lessons 3 and 4.
5 min	**Summary and Preview of Future Lessons** • Review and emphasize the importance of pre-screening and selecting information in these sources • Next lesson will focus on effective use of search engines (step 3).

Names: _____

NOW YOU TRY IT!
Easy As 1-2-3

Explorer: _____

Your mission: Select one basic fact about your explorer from the last lesson (such as birth date) that was wrong at the All About Explorers web site. Locate that fact in three other sources: a book, a subscription database, and a subject directory. Record the fact and your three sources here:

Fact: _____

Source 1: _____

_____

Source 2: _____

_____

Source 3: _____

_____

Now compare what you found with the information at All About Explorers. On the back, explain how you know that the fact there is incorrect.

LESSON 3
Google, What?

Objectives: After this lesson, students will
- ✓ understand what a search engine is.
- ✓ understand the key differences between a search engine and human-created directories.
- ✓ know that when using a search engine, it is more desirable to have fewer hits.

Preparation:
- ✓ Review lesson 3 PowerPoint presentation for content prior to lesson. (Note that the presentation may need to be adapted for your specific situation before use.)
- ✓ Complete sample searches prior to lesson so you can choose the best examples which relate closely to current class topics and/or student interest.
- ✓ Collect examples of books which would come up in a library "search engine" based on the word "explorer" (e.g. topical books, books with the word in the title, books with the word somewhere in the text)
- ✓ Prepare copies of the Now You Try It! worksheet #3

Time	Activity
5 min	• Review Lesson #2: Three steps for Internet research • Review subscription databases and subject directories
15 min	**What is a Search Engine and How Does it Work?** • Robots ("Spiders, Webcrawlers") • No more human selection • Collection rather than selection—everything on the Web is included • Show Google and show number of sites indexed (at bottom of front page) and number of hits for a key word (e.g. "Columbus").

10 min	**Getting Results**
	
	• Getting results with a search engine vs. subject directory
	    ○ SE gives many irrelevant hits
	    ○ SD gives fewer but more focused results
	• Let students check comparison of hits between a directory and a search engine for a specific topic
	• Emphasize that *fewer is better!*

10 min	**Additional Examples**
	
	• Specific examples of search results
	    ○ Constellations (or a similar current classroom topic)
	    ○ "explorer"
	    ○ What if the librarian were a search engine crawler? (Show examples of books that have irrelevant content but include the search term.)
	• Student exploration time to try searches on current class topics, personal research topics, or both, using both subject directories and search engines.

15 min	**Now You Try It!**
	
	• Student partners work together to search for their explorer by name in each of the following:
	    ○ Subscription database
	    ○ Subject directory
	    ○ Google
	• Record the number of hits for each search on the Now You Try It! worksheet.
	• Write down which search method would be the best choice for correcting the wrong info at AAE and why.

5 min	**Summary and Preview of Next Lesson** • Review and emphasize that search engines are completely programmed—no human judgment or evaluation is done for you. • Next lesson will focus on how to navigate on the Web and evaluate web sites.

Names: _____

Now You Try It!
Smart Searching

Explorer: _____

Your mission: Search for your explorer by name in each of the following types of Internet sites and record the number of "hits" you get for each one.

Subscription Database: _____

Hits: _____

Subject Directory: _____

Hits: _____

Google (http://www.google.com)

Hits: _____

Which search method would be the best choice for correcting the wrong information at All About Explorers? Why?

_____

_____

_____

LESSON 4
Where Exactly Am I, Anyway?

Objectives: After this lesson, students will
   ✓ be able to state the function and purpose of a URL.
   ✓ recognize that top level domains (URL "endings") are good clues to determine the purpose of a web site.
   ✓ understand that evaluation for quality is their own responsibility when using a search engine.

Preparation: ✓ Review lesson 4 PowerPoint presentation for content prior to lesson.
   ✓ Prepare copies of the Now You Try It! worksheet #4

Time	Activity
5 min	• Review Lessons #2 & #3, using subscription databases, subject directories and search engines
10 min	**Knowing Where You Are** • Direct students to the lesson 4 student page at the AAE site • Where are you now? (School name) • How do you tell someone else? (School address) • A Web site has an address, too: Uniform Resource Locator (URL) • Tells the computer where the site is located.

30 min	**Top Level Domains**
	
	• URLs can tell you a great deal about what is at a site
	• Assign students to one of the groups: North, South, East, or West. Have them click on the appropriate link on the student page and follow the instructions there to explore several web sites.
	• Have each group share out what they learned.
	• Top-level domains (.com, .org, .net, .edu, .gov) tell you what kind of person or organization runs the site:
	    o .com = commercial
	    o .org = organization (usually non-profit)
	    o .edu = educational institution (usually college)
	    o .gov = government agency
	• .edu and .gov are restricted; others are available to anyone who wants to use them
	• Personal web pages: the tilde (~)
	• What can you trust and why?
	    o www.amazon.com has good information about books. *Why?* (Better info will sell more books and keep more customers.)
	    o www.fi.edu (Franklin Institute) had to prove they were educational to get a ".edu" address
	    o www.nasa.gov (space program)

5 min	**Brief Intro to Evaluation**
	
	• What to watch out for once you are there
	    ○ Author and/or organization name
	    ○ Date
	    ○ Factual information

15 min	**Now You Try It!** • Student pairs do a Google search for their explorer and select 5 sites to read in more detail based on analysis of the URL and the site summary. • Choose two high-quality sites from your search and tell why you believe they will have useful and accurate information—use what you have learned in all of our lessons to support your choices.
10 min	**Summary and Review** • Review of all four lessons • Discussion of key points

Names: _____

Now You Try It!
Only The Best

Explorer: _____

Your mission: Do a Google search for your explorer. Select 5 sites from your results that might have good results based on your analysis of the URL and the site summary. Write them here:

Site 1: _____

_____

Site 2: _____

_____

Site 3: _____

_____

Site 4: _____

_____

Site 5: _____

_____

Now go to each site and study it in more detail—use everything you have learned in all of our lessons to select two high-quality sites and explain why you think they are going to be best:

Source: _____
_____

Why we know it is reliable: _____

_____

_____

_____

_____

Source: _____
_____

Why we know it is reliable: _____

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LESSON 5
How Could They Be So Wrong?

Objectives: After this lesson, students will
- ✓ be able to find accurate information to correct the mistakes they find in the biographies at the AAE web site
- ✓ be able to clearly and persuasively communicate with the site's Webmaster how to correct the faulty biographies

Preparation: ✓ Prepare copies of the Now You Try It! worksheet #5

Time	Activity
5 min	• Review all lessons, using subscription databases, subject directories and search engines, and validating web sites
10 min	**Introduction to Culminating Activity** • Distribute worksheets and explain activity to students • Discuss whether or not students will get to actually send their email. • *NOTE: The webmaster@allaboutexplorers.com email address is live, and if students send their letters to us, they will get a response.*
45 min	**Now You Try It!** • Students work in pairs to review the AAE page about their explorer • Students select 3-5 facts to correct • Research and locate correct information in at least two reliable sources: one print source and one Internet site • Record sources and correct facts • Students draft an email to the AAE site webmaster correcting their work

Names: _____

Now You Try It!
How Could They Be So Wrong?

Explorer: _____

Your mission: Fix the mistakes you found at the All About Explorers web site! Use the sites you found in the last few lessons along with books that your librarian helps you find to learn the truth about the explorer you have been studying. Read the biography for your explorer again at AllAboutExplorers.com and make a list of 3-5 serious mistakes you find.

Use this page to organize your study: list the faulty information at AAE, the correct fact for each, and list the sources you used to verify your information. Use at least one print source and one reliable Internet source.

Incorrect Fact 1: _____

_____

Corrected: _____

_____

Incorrect Fact 2: _____

_____

Corrected: _____

_____

Incorrect Fact 3: _____

_____

Corrected: _____

_____

Incorrect Fact 4: _____

_____

Corrected: _____

_____

Incorrect Fact 5: _____

_____

Corrected: _____

_____

Source 1: _____

_____

_____

Source 2: _____

_____

_____

Now write an email to the AAE webmaster (webmaster@allaboutexplorers.com). Make sure you explain who you are, why you are writing, and what facts need to be changed. Be sure to support your information by listing your sources! Your teacher will help you send the email.

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ALL ABOUT EXPLORING THE INTERNET
Student Evaluation

Something I learned about information on the Internet. . .

The process I would follow to find out information about a topic would be. . .

Something I learned about URLs. . .

Two things I would like to learn more about. . .

One thing I liked best about the Internet lessons. . .

One thing I would change about the Internet lessons. . .