Class 1: Become an Online Sleuth
Become an Online Sleuth

DESCRIPTION:
In this class, students will identify guidelines for evaluating the credibility of content online. A Student Handout Booklet accompanies this class.

TIME REQUIRED: Approx. 50 minutes

PREREQUISITES: Students need to understand the difference between lies and truth, fact and opinion. They also need basic computer skills and experience searching topics online.

RECOMMENDED GRADE: 6-8

ESSENTIAL QUESTIONS:
Why is it important to be alert and check sources while exploring online?

LEARNING GOALS:
• Students will understand that just because information is online doesn’t mean it’s true.
• Students will learn the guidelines on what information they can and can’t trust.
• Students will evaluate and compare online information sources for accuracy, relevance and bias.
• Students will apply their knowledge of reputable online sources to determine which sites are credible and which are not.

PREPARATION:

Materials needed:
• Chart paper or chalk/white board
• Student Handouts booklet for each student.

Materials recommended:
• Computer with Internet connection and screen projector device for presenter. (Note: if you do not have a screen projector, you can opt to not use the accompanying presentation.)
• Computers with Internet connection for students. (Recommended one per student or one per small group of students, but not required.)
• If you don’t have Internet access, print out the screenshots on page 9, 10, and 11 for your students.

Optional video:
Detecting Lies and Staying True: http://www.youtube.com/watch?v=fXFbQKz3anw
VOCABULARY:

Accuracy  the condition or quality of being true, correct, or exact; freedom from error or defect; precision or exactness; correctness
Bias      a particular tendency or inclination, or prejudice
Credible  worthy of belief or confidence; trustworthy
Credentials anything that provides the basis for confidence, belief, credit, etc
Domain    the suffix at the end of a web address, such as .com or .org.
Extension Evaluate to judge or determine the significance, worth, or quality of
Publisher a person or company whose business is the publishing of books, newspapers, online articles, computer software, etc.
Relevance relation to the matter at hand
Skeptic   a person who questions the validity or authenticity of something appearing to be factual
URL       web address you type into a browser to reach a website

STANDARDS ADDRESSED:

- ALA Standard 2:1: Student determines accuracy, relevance, and comprehensiveness.
- ALA Standard 2:2: Student distinguishes among fact, point of view, and opinion.
- ALA Standard 2:3: Student identifies inaccurate and misleading information.
- ALA Standard 2:4: Student selects information appropriate to the problem or question at hand.
- ALA Standard 6:1: Student assesses the quality of the process and products of personal information seeking.
- CCSS: RI.3.5: Use text features and search tools (e.g. key words, sidebars, hyperlinks) to locate information relevant to a given topic efficiently.
- CCSS: RI.5.7: Draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently.
- CCSS: W.6.1.b: Support claim(s) with clear reasons and relevant evidence, using credible sources and demonstrating an understanding of the topic or text.
- CCSS: 7.1.b, 8.1.b: Support claim(s) with logical reasoning and relevant evidence, using accurate, credible sources and demonstrating an understanding of the topic or text.
- NETS: 3:b: Students locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media.
- NETS: 3:c: Students evaluate and select information sources and digital tools based on the appropriateness to specific tasks.
Pre-Assessment (2 min)

Pass out the True or False Questions handout and have students mark a “T” or “F” after each statement (Student Handout, 2)

True or False?

- If I can find it online, it must be true. (F)
- There is an email address listed in the website, so it must be a legitimate source! (F)
- There is a logo of the White House at the top of the page, so I can definitely trust this website. (F)
- The website looks really official. The information it offers must be true. (F)
- There are a lot of graphs and charts on the site. With all this information it must be true. (F)
- It is clear who wrote the content because there is contact information and the information seems current and error-free. I can safely use this information for my homework assignment. (F)
- I should always compare the information I find online with at least 2 other sources. (T)
- I should always be a skeptic when it comes to information that I find online. (T)
- I should always think about what’s missing from a website. (T)
- I should always review the sources (or author) of the website. (T)

Hook or Attention Activity (3 min)

Choose one of these following activity ideas:

- **Movie ratings:** Ask your students to think about their favorite movie and write it down. Ask them to get specific about why they thought it was good. What did you look for? Discuss with your neighbor.
- **Modified 2 Truths and 1 lie Game:** Tell your students two truths and one lie. Ask them to guess which is the lie. Have them explain their thought-process and why they guessed the way they did.

Say: “*We’re always evaluating what we see and hear. Sometimes we forget to do this with online resources.*”

What makes a website trustworthy? (5 min)

**Ask, What makes a website trustworthy?** Ask students to come up with a list of factors they think makes a website trustworthy and have them share out with the class.

Lead a discussion on the topic, relying on these talking points:

- Anyone can write things on the web.
- Although many things on the web may be interesting and correct, we can’t always be sure that everything is necessarily true.
- Not everyone is an expert on the subject on which they write.
- Since we don’t always know who wrote the information or if they are qualified to write on the subject, we need to be alert and check information before we can trust it.
Either watch this movie\(^1\) by Google, Detecting Lies and Staying True (http://www.youtube.com/watch?v=fXFbQKz3anw) and ask them to list the evaluation criteria that are presented in this video. Pass out “While You Watch” (Student Handouts, 3) to fill out as they watch the video or right after.

*Say: “You are going to watch a short video (developed by the team at Google) that will talk about guidelines on how to evaluate online resources. As you watch the video, please take note of the tips for trusting a website.”*

**OR share these key concepts** from the video with your class:

*Say: “The Internet allows you to find any information that you want. However, just because it is online doesn’t mean it’s true. You must be a skeptic and ask: What is the point of view of this website? What are they trying to get me to believe? What opinions or ideas are missing? You should also investigate the source and ask: Who is publishing the information? Remember, a reliable source, like a university, tends to be more credible. Lastly, follow the rule of three—this means compare three sources of information before coming to a conclusion.”*

**Ask the students to name the tips that they just heard.** These should include:

- Be a skeptic.
- Don’t be fooled by cool or professional websites.
- Ask yourself what’s the point of view of the site.
- What are they trying to get me to believe?
- What opinions or ideas are missing?
- Investigate the source.
- Find out who published the information.
- Follow the “rule of 3”: compare 3 sources of information. Remember to include one source with an opposing viewpoint.
- Always check facts that you find.

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\(^1\) NOTE: This video covers two concepts (detecting lies and staying true). This lesson, however, only focuses on the first concept, Detecting Lies.
1) Discuss these possibilities with your students:

Investigate the source:
• Check the URL - what is the domain extension and what does it stand for? (student handout, 4):

  Say: “Think of domain extension as a flag for a country. It helps group similar websites together. Some common domain extensions include .com and .org. For example, .com represents the word “commercial” (businesses like this extension). Countries also have domain extensions, like .co.uk (which refers to the UK). When searching for something online, make sure to check the website’s domain extension to see if the website's source makes sense for your search – in other words, if you're looking for educational sites, maybe you should put more weight on websites with .edu.”

• Is it clear who created the content?
• Can you tell what the qualifications of the author are?
• Is the content protected by copyrights?

Who holds the copyrights? Discuss the meaning of copyrights: When a person creates an original work that is fixed in a physical medium, he or she automatically owns copyright to the work. Copyright ownership gives the owner the exclusive right to use the work in certain, specific ways. Many types of works are eligible for copyright protection, including:

• Audiovisual works, such as TV shows, movies, and online videos
• Sound recordings and musical compositions
• Written works, such as lectures, articles, books, and musical compositions
• Visual works, such as paintings, posters, and advertisements
• Video games and computer software
• Dramatic works, such as plays and musicals

Ideas, facts, and processes are not subject to copyright. Names and titles are not, by themselves, subject to copyright protection. For more information about Copyrights, visit:
• http://www.youtube.com/yt/copyright/what-is-copyright.html
• http://www.teachingcopyright.org/curriculum/hs

What are they trying to get me to believe: What is the purpose of the site? Why was it created? Is the purpose clear? Is it to sell something, to inform, to explain, to persuade, to entertain, to share, etc.? What kind of a website is it? Is it a business website? Is it a personal website? Is it a news source?

What is the point of view of the site: What information is included? What information is missing from this website? What is the bias of the author? What ideas or opinions are missing? Is the information presented in a balanced way? Can you detect any ideas or opinions that are missing?
Other good questions to ask yourself:

- Is there contact information that can be verified?
- Are there any links or footnotes to other relevant and reliable sources?
- Does the website use correct grammar, spelling and sentence structure?
- Are graphs and/or charts clearly labeled?
- Is the content current?
- Are there dates that show when the site was created and updated?

2) Be sure to make clear to your students that:

**Recognizing credibility is not cut and dry.** The credibility of some web sources may be hard to determine, but the questions posed in this activity will help.

**Use the above questions subjectively to determine credibility.** These questions are not a checklist. Some credible websites will not meet all of the criteria, and other unreliable websites may include other suspicious indicators not listed. These questions are designed to be an opportunity for students to practice locating, identifying, and processing various kinds of information.

3) Write down any examples that the students provide.

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**Activity (20 min)**

Divide the students into groups of 4-5. (Recommended: Internet access for students. Alternative: Print copies of the example websites for this activity on page 9, 10, and 11.)

Let the students know that they've been given the task of writing a scientific report about the subject: “Could there be life on other planets?” As part of their research they should compare at least 3 websites. Remind them of the “rule of 3” and its importance.

*Say: Can anyone remind us what the Rule of Three means? Why is it good to compare at least 3 sources of information?* Get responses from the students.

In their groups, students will use the Source Comparison Tool (*Student Handouts, 5 and 6*) and other supplementary information -- Top Level Domain Extensions (*Student Handouts, 4*) -- to evaluate the relative quality of 3 sources. You will then discuss with the class which web sources were the most trustworthy and useful, and which sources were the least reliable and why.

If time allows, you can let each group search the Internet and select their sources on their own. If short on time, you can select 3 sources from this list:
Source List: Is There Life on Other Planets?

Questionable/biased web sources:
- http://www.aliensthetruth.com/
- http://www.icr.org/article/can-life-exist-other-planets/
  http://www.nicap.org/articles/hillzeta.htm
  http://www.chacha.com/question/is-there-life-on-other-planets/
- http://www.gravitywarpdrive.com/Reticulan_EBE.htm
  http://www.ufoevidence.org/
- http://www.ufos-aliens.co.uk/
- http://www.answerbag.com/q_view/376966

Credible/objective web sources:
- http://www.seti.org/
- http://astrobiology.nasa.gov/ask-an-astrobiologist/popular/
- http://www.kepler.arc.nasa.gov/
  http://www.nasa.gov/vision/earth/technologies/Life_Detector.html
  http://www.science.nasa.gov/headlines/y2010/04jan_fiveplanets.htm
- http://earthguide.ucsd.edu/virtualmuseum/litu/litusyllabus.shtml

Examples of websites are included below:
- http://www.aliensthetruth.com/ (questionable/biased/amateurish)
  - Number of visitors to the site
  - Focus is on persuasion than facts
  - The domain extension is .com
- http://www.ufos-aliens.co.uk/ (questionable/biased/amateurish)
  - The website is only sourced in one country -- UK
  - The focus is on conspiracies
  - It's calling for first-hand, non-vetted accounts of UFO sightings
  - There are several broken links and images
- http://www.kepler.arc.nasa.gov/ (credible/objective/expert)
  - Website is owned by a known and credible organization (you can tell by the domain extension – NASA)
  - The focus is on experiments and scientific accounts
Welcome to Aliens the Truth

UFOs exist, the proof is undeniable. Thousands of people make reports yearly of strange lights performing impossible maneuvers that traditional earth-bound aircraft, commercial, military, etc. could never accomplish. While most of the world’s governments try to deny the reality of their existence, they blame the sightings on natural aerial phenomenon, the planet Venus, swamp gas, weather balloons or mass hysteria.

There is one ultimate truth that the world is afraid to accept... the reality that we are not alone in the universe, the proof is here, the proof is real, seek out the truth... Aliens the Truth.

What is the Citizen Hearing on Disclosure?

From April 29, 2013 to May 3, 2013 researchers, activists, political leaders, and former members of military services and government agencies representing ten countries gave testimony in Washington, DC to six former members of the United States Congress on the evidence of an Extraterrestrial presence engaging the human race.

The Citizen Hearing on Disclosure was an unprecedented event in terms of size, scope and the involvement of former Members of the U. S. Congress. With over 30 hours of testimony from forty witnesses, the Citizen Hearing on Disclosure is the most concentrated body of evidence and testimony regarding the Extraterrestrial issue ever put into one place at one time.

http://www.citizenhearing.org/

Help spread the truth

Share your sightings, abduction experiences, paranormal experiences or news stories.

- Have general feedback? (click here to submit)
- Have a news story to share? (click here to submit)
- Have a site to suggest to be an affiliate (click here to submit)
WELCOME TO ‘COSMIC CONSPIRACIES’ - EUROPE’S BIGGEST AND MOST POPULAR UFO/PARANORMAL WEBSITE!

WHY NOT CALL OUR UFOPARANORMAL HOTLINE ON 07963 877734 WITH YOUR SIGHTINGS!

Send Your UFO Information to: mail@cosmic-conspiracies.com

WORLD EXCLUSIVE: In December 2010, a lady contacted our website because she believed she had been abducted by aliens. But what made this encounter unique was that she also had film footage of the abduction!

Cosmic Conspiracies has the World exclusive rights to this encounter and footage.

Click here to read the complete story and view the footage

The following article was written by guest writer, Harv Howard. We have been lead to believe that our efforts into space have advanced along purely typical lines of scientific investigation of natural phenomena such as Mankind has always done on Earth. That quest has naturally moved outward to other worlds in our solar system and beyond as technology has allowed.

Such is true in the greater context of what Boonoo is about. But the driving force of all planet investigations has as its core a hidden agenda beyond that of our innate curiosity. The directed goal has been a search for answers to a troubling predicament: Where do the UFO’s come from, and are they local to our solar system?

We are in the midst of a slow, scientific disclosure that started with our early space probes and is increasing in velocity at an ever-increasing rate. Under our watchful and frequently enthralled eyes we have been presented with a growing escalation of new discoveries every few weeks. The public knows these revelations as Martian meteorites with fossilized primitive life forms, water on Mars, and the Moon, Titan maybe harboring life in its oceans, Mars anomalies, and, recently, planets found around other stars. Without a doubt, the discovery of earth-like planets will be found any day now. Closer to home and in recent weeks, there has been a recent reviewing of the argument over the results from the Viking “search for life” experiments in the late 1970s. Unbeknown to the public, that all-important question has never been fully or correctly answered. Click to read more...
Post Assessment (3 min)

Have students pull out the True/False questions they answered earlier. Ask them to review and determine if any of their answers have changed. If so, have them make a new “T” or “F” next to their original answer. Have them discuss with a partner.

Optional Extension Activities (10 minutes)

You may choose to lengthen and expand the discussion on evaluating websites by using the additional information below.

Say: It’s always a good idea to check the Domain Extension and see if it matches the content.”


Say: Let’s use Peta as an example. http://www.peta.org

- From the domain extension we can assume (but can’t be sure) that it’s a non-profit organization.
- The publisher “Peta” and the logo of the website matches the domain name.
- The content is protected by copyrights that are assigned to Peta (bottom of the page) and there is contact information on the bottom of the page that can be verified.
- It seems like a legitimate organization with a genuine website.
- We can see that Peta has a mission (for example, in the “About Us” page). The purpose of the website is to persuade.
- When we search the web for “Peta” we learn from other sources that this organization is sometimes confrontational and extreme in its positions.
- We can see it promotes a certain lifestyle and criticizes certain organizations and businesses.
- The information in the website is not presented in a balanced way, and we are missing the perspectives that Peta condemns in its campaigns.
Animals are not ours to eat, wear, experiment on, use for entertainment, or abuse in any way.
Compare these two sources that contain health information.
Required: Computer with Internet connection and screen projector device for presenter.

- http://www.wallachonline.com/index.htm

The first resource is reliable (the domain extension indicates that it is a government source – National Institute of Health. The logo matches the domain name (nih). At the bottom you can find contact information (mailing address) and a “contact us” link leads to more contact options. This seems as a very reliable source. You can Google “nih” to make sure that this is their official site. The “About nih” gives more information about the credentials of the authors and publisher.

This is an informational site. Its purpose is to give the public access to information. It is clearly stated in a few locations throughout the site (Mission page, Disclaimers page, etc.). They do not endorse or recommend any commercial products.

The website seems balanced, as they don’t endorse any specific point of view or any commercial products. It doesn’t have any dates that show how current the information is, but there is an option to subscribe to RSS email updates, which gives current information.

The second resource could be a personal page by Dr. Wallach. The URL shows that it’s a.com (commercial). A quick Google search on his name gives many results that put the Dr.’s credentials in question (for example: http://www.skepdic.com/wallach.html). It seems that he is biased and has an agenda that he wants to push. The purpose of the site is to sell the Youngevity products.

Find the truth behind Dihydrogen Monoxide.
Required: Computer with Internet connection and screen projector device for presenter.

Say: “Since anyone can publish anything on the web, you need to be careful of what you believe.”

Below are a few websites that discuss the Dihydrogen Monoxide hoax.

The Hoax:
- http://www.dhmo.org/
- http://descy.50megs.com/descy/webcred/webcred/dhmo.html
- http://www.lhup.edu/~dsimanek/dhmo.htm
- http://www.armory.com/~crisper/DHMO/

Revealing the hoax:
The Tree Octopus Dilemma
Required: Computer with Internet connection and screen projector device for presenter.

Students will evaluate the credibility of a website -http://zapatopi.net/treeoctopus/

From the domain extension we can assume that it’s not from an organization, small business or government agency. It does mention that the author is Lyle Zapato, but when his name is clicked it goes to a separate page that does not provide any more information about him. The page was created in 1998 and yet is still maintained fairly frequently. All links work and direct to real content. A simple Google search proves that the Pacific Northwest Tree Octopus does not exist. This page is a very good example of a well done, non-credible website. To find information about more bogus sites, or “urban legends”, you can use these resources:

- http://www.urbanlegends.com/
- http://urbanlegends.about.com/?once=true&
- http://www.scambusters.org/legends.html

Say: “These are helpful resources, but remember to check more than one resource. ”

Extra Tips for the Instructor
Sources for “good online sources” that you can trust:
- http://www.ipl.org/ (Librarian's Index to the Internet – UC Berkeley).

Sources for web evaluation techniques:
- http://www.lib.berkeley.edu/TeachingLib/Guides/Internet/Evaluate.html (Evaluating Web Pages - UC Berkeley)

Additional Activities (10 minutes)
You may choose to lengthen and expand the lesson on evaluating websites by using one or more of these additional activities.

Option #1: Conduct scavenger hunt. (10 minutes)
Divide students into groups. Prior to this activity, prepare a list of topics and corresponding websites, and then invite groups to select a topic of interest from the list. Interest ideas can include sports, animals, art, or music. Instruct the groups to complete the “Scavenger Hunt Record Sheet” (student handout, 7) based on their chosen topic.

- Differentiation: When preparing the list of corresponding websites, select several sites that span readability levels so that if more than one group chooses the same topic, you can assign website links that are appropriately challenging to each group. For students at the Intermediate level, consider listing sites that offer valid information, but that make it difficult to find (e.g., a site
authored by an authority who only uses a Twitter handle instead of their name). Do not pick hoax sites, as it is difficult to transfer these skills from fictional topics to information on topics students will actually encounter in life.

OPTION: You might elect for students to have already conducted research prior to beginning this lesson. Then, instead of the scavenger hunt using pre-selected websites, they can use their own sources.

**Option #2: Source Sleuth Game. (10 minutes)**

Divide students into groups. Invite groups to select a topic of interest from a list that you prepare prior to this activity. Issue a website address to each pair or trio based on their topic of interest and readability level.

Tell students they will use the game board “Source Sleuth Game” (*Student Handouts, 8*) to investigate information about the author of material on a website. To start the game, students put a game piece on the “Start” box. This can be a collection of pieces you or students provide, such as beans, pennies, buttons, macaroni, metal rings, or paperclips. In addition, provide duplicate cards with a 1, 2, and 3 point value. Place these cards face down.

Assign students a website and ask them to open it next to their prepared game cards. Students determine who goes first. This person turns over a card and moves to the spot on the board indicated by this number. Using the source information, the student answers the question. The pair or trio must agree before it is the next student’s turn. Repeat so that students continue to move around the game board answering and discussing questions based on the website. The game is over with the first person (or all students, as you wish) reach the “End” spot.

- **Differentiation:** When preparing the list of corresponding websites, select several sites that span readability levels so that if more than one group chooses the same topic, you can assign website links that are appropriately challenging to each group. For students at the Intermediate level, consider listing sites that offer valid information, but that make it difficult to find (e.g., a site authored by an authority who only uses a Twitter handle instead of their name). Interest ideas can include sports, animals, art, or music. Do not pick hoax sites, as it is difficult to transfer these skills from fictional topics to information on topics students will actually encounter in life. For groups needing additional support, work with them on an individual basis to get started on this assignment.