

Close Encounters

Evaluating Websites for Credibility
A unit for Middle School

I crash landed in
Roswell and all I
got was this
crummy t-shirt!



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July 2015



II. Introduction

1. Rationale

Teaching students 21st century skills is more important than ever. The incredible amount of technology available to children at school and at home exposes them to an avalanche of misinformation and also some potentially harmful and hate inspired doctrines. It is imperative that districts, schools and teachers develop curricula and strategies to teach students the critical thinking skills necessary to accurately evaluate, comprehend, and judge the validity and reliability of resources located using the Internet.

2. Differentiation

Although it is important for all students to learn and practice the critical thinking skills necessary for evaluating websites, this particular unit is differentiated for gifted learners. The concepts will be taught much more quickly (students in a regular education class would require more than four hours of instruction to learn and practice the critical thinking skills) and the product (performance task) is more complex than what would be assigned to students in a regular class. Also, this unit is differentiated for a small group. I only had 5 students, so I was able to assist them with the technology that was necessary for the product, such as the cartoon maker and the digital poster maker.

Process

The activities in this unit are more intellectually demanding than what would be employed in a regular classroom. The students are engaged in active exploration and discovery. They have a high degree of choice in which websites they

Final Unit Plan

choose to evaluate. And the process of making a cartoon, embedding it in a digital poster, then evaluating many websites and creating hyperlinks, descriptions, evaluations, and illustrative pictures to go with each website is more complex than assignments used in a regular ed class. The thinking skills required are of a higher order: synthesis, analysis, and evaluation. Group interaction is encouraged, as well as guided self-management.

Product

The product is more complex than products that would be assigned in a regular education classroom. The degree of complexity would make this a frustrating assignment for most non-AG students. If attempted in a regular class, it would have to be broken down into smaller components or parts, and much more time would be required for completion.

Environment

This unit requires a great deal of independence as learners work at their own pace and self-select topics of websites which they choose to evaluate. Learning is self-directed because students participate in a tutorial online in order to learn the criteria for evaluating a website. Additionally, this project addresses a real world problem.

Complexity

Students are using several higher level thinking skills at the same time; critical thinking, analysis, evaluation, and synthesis. They are using many internet resources at once to create the product (Glogster, the internet, Scratch, word documents). Issues/concepts/themes/ extend across many domains of learning.

Creativity

Students are able to create a cartoon in which they choose the style of the background, the characters, and the storyline in which the criteria for evaluating websites is presented. Additionally, they create a digital poster which can be decorated with pictures, a wide variety of styles of fonts, image frames, text boxes and wallpaper. They also have choice in which websites they decide to evaluate.

3. Demographics of students

This unit was written for the students participating in the STEPS summer school program in the summer of 2015. The students are all in middle school. I had 5 students in my class... four rising 6th graders and one rising 7th grader. All of the students are very bright and articulate and can read rapidly. Three of them brought a book to class every day. In class discussions they were all knowledgeable on many topics. The class had one girl and four boys. One boy attends private school, but the other four have been educated in public schools. Three of the students are classified as Highly Gifted. All of the students appear to be from middle class homes. One student shared with the class on the first day that his parents are gay. Another student has a father who has lived in South Africa, Ireland and Iran. None of my five students were friends, although two knew each other. One need that they had is for socialization, so after the first day I tweaked my lessons to involve them talking and working together more so that they could form friendships during the summer camp.

III. Goals and outcomes

Goal 1 – students will know that websites (and other media) need to be evaluated for credibility

Content goals and outcomes

Students will know that the credibility of websites (and other media) can be ascertained by using a mental checklist of 5 Ws.

- A. Students will know that some information on websites is written in order to spread ideas espoused by hate groups
- B. Students will know that the identity of an author of a website can be established by using the About Link on a website.
- C. Students will know what domain names in websites are (such as .com, .edu, .gov or .museum and recognize the difference in these credentials.)
- D. Students will know that bias exists in websites and that it is possible to detect bias.
- E. Students will know that it is possible to evaluate the content of a website by fact checking with other websites, checking for factual errors and misspellings, checking the date, and if the source of the original material is stated.
- F. Students will know what navigational cues are in a website. websites and know how to check websites to see if links are functioning.

Goal 2 – to develop reasoning skills that will help students to evaluate the validity and credibility of media sources

Process goals and outcomes

Students will be able to determine the purpose of a website (whether it is to support teaching, document current events, historic events, to persuade the reader to a particular mindset, or to disseminate incorrect information).

- A. Students will be able to determine an author's point of view or purpose in a text and analyze how the author distinguishes his or her position from that of others.
- B. Students will be able to cite several pieces of textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.
- C. Students will be able to evaluate the credibility of websites by using a mental checklist of 5 Ws.
- D. Students will be able to evaluate various websites according to credibility on a scale of 1 - 10.

Goal 3 - to develop an understanding that websites (and other media sources) must be evaluated for credibility

Concept goals and outcomes

- A. Students will understand that websites and other media sources need to be evaluated for sound reasoning and to ascertain that the evidence is relevant and sufficient to support the claims.
- B. Students will understand that it is possible to analyze the structure an author uses to organize a text, including how the major sections contribute to the whole and to the development of the ideas.
- C. Students will understand that it is necessary and possible to determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings.

IV. Assessment plan

Because this is a summer school program, the students will not be assigned a grade for their work. But the performance task (the digital poster) will allow me to assess if they learned the skills necessary for evaluating websites. I created an answer key so that I can quickly see if students are correctly identifying amateurish websites or websites containing misinformation.

Answer Key to Performance Task

Source List: Is There Life on Other Planets?

Examples of questionable/biased/amateurish web sources:

- <http://www.alienshethtruth.com/>
- <http://users.erols.com/feanor17/Ufo.html>
- <http://www.icr.org/article/can-life-exist-other-planets/>
- <http://www.nicap.org/articles/hillzeta.htm>
- <http://hubpages.com/hub/milky-way>
- <http://www.chacha.com/question/is-there-life-on-other-planets>
- <http://www.dvorak.org/blog/2006/08/02/nasa-needs-a-plan-for-telling-the-public-aboutlife-on-other-planets/>
- http://findarticles.com/p/articles/mi_m0EPG/is_n3_v29/ai_16657943/
- http://www.gravitywarpedrive.com/Reticulan_EBE.htm
- <http://www.ufoevidence.org/>
- <http://www.ufos-aliens.co.uk/>
- http://www.answerbag.com/q_view/376966
- <http://wehrintheworld.blogspot.com/2010/02/life-on-other-planets.html>

Examples of credible/objective/expert 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://cosmiclog.msnbc.msn.com/archive/2009/09/16/2072217.aspx>
- <http://www.israel21c.org/social-action/israeli-fibers-help-nasa-locate-livable-planets-inthe-universe>
- <http://earthguide.ucsd.edu/virtualmuseum/litu/litusyllabus.shtml>
- <http://www.alicesastroinfo.com/2009/12/answering-questions-life-on>

In addition I created a rubric for evaluation purposes. Typically I will give my students a copy of the rubric that I am using for assessing their assignments, but in this instance I did not because I am not actually grading the students. Also, I did not want to make the students feel pressured or anxious. Throughout the four day camp I endeavored to keep the tone relaxed, playful and fun.

Performance Task Rubric

	does not meet standards	progressing	proficient	exemplary
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Final Unit Plan

presents and explains evaluation criteria	Evaluation criteria is missing or incomplete	Presents evaluation criteria but provides little or no explanation or clarity about the evaluation process	Presents and explains evaluation criteria in a manner that is understandable to Middle School students	Presents and explains evaluation criteria in a unique manner that is engaging to Middle School students
completeness	Website referenced on poster is not about UFO/alien sightings	Identifies a website about UFO/alien sightings but does not include a hyperlink to the website	Identifies fewer than 8 websites about UFO/alien sightings and includes hyperlinks to the website	Identifies 8 or more websites about UFO/alien sightings and includes hyperlink to each website
accuracy	Evaluation of website (using numeric indicators 1 – 10) is missing	Evaluation of website (using numeric indicators 1 – 10) is inaccurate or accompanying explanation of the score is missing	Accurately evaluates website(s) (using numeric indicators 1 – 10) with accompanying explanation of the score	Accurately evaluates website(s) (using numeric indicators 1 – 10) with accompanying explanation of the score in a unique manner that is engaging to Middle School students
mechanics	Many spelling and/or grammatical errors	some spelling and/or grammatical errors	Only one spelling and/or grammatical error	Writing is free of grammatical and spelling errors
layout and attractiveness	Poster is lacking color and pictures and layout is illogical	Poster has some color and a few pictures but the layout is difficult to follow or illogical	Poster has color and pictures and the layout is logical and easy to follow	Poster has color and pictures and the layout is easy to logical and easy to follow in a unique manner that is engaging to Middle School students

Final Unit Plan

In addition to correctly identifying credible websites, the students will create a cartoon which explains the steps necessary for evaluation of sources.

Student sample

<https://drive.google.com/open?id=0B7pj3xOYPrfyzE0RUIJdi1OTVU>

V. Lesson Plans

TEACHER NAME		Lesson #
Reese		1
MODEL	CONTENT AREA	GRADE LEVEL
questioning	Language Arts and Media Literacy	Middle school
CONCEPTUAL LENS		LESSON TOPIC
credibility		Media requires evaluation of credibility
LEARNING OBJECTIVES <i>(from State/Local Curriculum)</i>		
<p>Language Arts Reading Informational Text</p> <p>RI.7.8 Comprehending messages and using critical thinking to analyze message quality, veracity, credibility, and point of view, while considering potential effects or consequences of messages SL.7.1 Pose questions that elicit elaboration and respond to others' questions and comments with relevant observations and ideas that bring the discussion back on topic as needed <u>CCSS.ELA-LITERACY.RI.7.8</u> Trace and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient to support the claims. <u>CCSS.ELA-LITERACY.RI.7.5</u> Analyze the structure an author uses to organize a text, including how the major sections contribute to the whole and to the development of the ideas. <u>CCSS.ELA-LITERACY.RI.7.4</u> Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the impact of a specific word choice on meaning and tone.</p>		

Final Unit Plan

THE ESSENTIAL UNDERSTANDING <i>(What is the overarching idea students will understand as a result of this lesson?)</i>		THE ESSENTIAL QUESTION <i>(What question will be asked to lead students to “uncover” the Essential Understanding)</i>	
evaluation informs credibility		How do you evaluate websites for credibility?	
CONTENT KNOWLEDGE <i>(What factual information will students learn in this lesson?)</i>		PROCESS SKILLS <i>(What will students be able to do as a result of this lesson?)</i>	
<p>Just because it’s online doesn’t mean it’s true.</p> <p>There are guidelines for evaluating what information can and can’t be trusted.</p> <p>Everyone can write things on the web.</p> <p>Since we don’t always know who wrote the information or what their credentials are, we need to be alert and check information before we can trust it.</p> <p>Websites have a URL.</p> <p>URLs have a domain name.</p> <p>Websites should have information about the author, the date published or updated, and the organization sponsoring the site.</p>		<p>Students will evaluate and compare online resources for quality.</p> <p>Students will identify inaccurate and misleading information.</p> <p>Students will evaluate and compare online information sources for accuracy, relevance and bias.</p>	
GUIDING QUESTIONS <i>What questions will be asked to support instruction?</i> <i>Include both “lesson plan level” questions as well as questions designed to guide students to the essential understanding</i>			
Pre-Lesson Questions:		During Lesson Questions:	
<p>Who has seen websites on the internet about UFOs or aliens?</p> <p>Who has heard about UFOs or aliens from other media sources other than the internet?</p> <p>What were they like?</p> <p>What were some of the claims?</p> <p>Were they believable?</p> <p>What does UFO stand for?</p>		<p>What would you do if a substance that caused thousands of deaths each year was found in your neighborhood?</p> <p>What if it was found in your home?</p> <p>What if I told you this substance was found in our school today?</p> <p>What if I told you that our principal purposely has this substance pumped into our school?</p>	
		Post Lesson Questions:	
		<p>What is the purpose of the site? Explain</p> <p>Who wrote or produced the information, and what authority or special knowledge does the author have?</p> <p>If the site is credited to an organization, what do you know about that organization?</p> <p>What is the domain and what does that tell you?</p> <p>What contact information is given and is it easy to find?</p>	

Final Unit Plan

		<p>Does the content give only one side of an issue? If so, do they hide their bias? What bias or slant do you detect in the source? What does it say that indicates a bias? How does their bias impact the usefulness of the information? Is the site accurate complete, well-written and relevant? Explain. How relevant are the links on the page? Explain. What mistakes in spelling or word usage did you detect? What about the design and layout make the information clear and organized? How do the graphics, video or audio add to the content? In what way do the ads interfere with the content? Did you think that DHMO should be banned? (Teacher will present the students with a bottle of water.) How were we fooled into banning water? What is your final evaluation of the site as a truthful and reliable source of information?</p>
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DIFFERENTIATION

(Describe how the planned learning experience has been modified to meet the needs of gifted learners. Note: Modifications may be in one or more of the areas below. Only provide details for the area(s) that have been differentiated for this lesson.

Content	Process	Product	Learning Environment
	Higher Levels of thinking Open-endedness Discovery Evidence of reasoning	Result from Real Problems	Learner Centered vs. Teacher Centered

Final Unit Plan

PLANNED LEARNING EXPERIENCES

(What will the teacher input? What will the students be asked to do? For clarity, please provide detailed instructions)

Engage and Connect - *This phase focuses on piquing students' interest and helping them access prior knowledge. This is the introduction to the lesson that motivates or hooks the students.*

Ice breaker - Two lies and a truth - Students invent two lies about themselves and present the lies with one truthful fact. Others will attempt to guess which statement is the truth.

Teacher starts with a discussion about UFOs and aliens as presented through media.

Teacher asks: Who has seen websites on the internet about UFOs or aliens?

Who has heard about UFOs or aliens from other media sources other than the internet?

What were they like?

What were some of the claims?

Were they believable?

What is a UFO?

Following the discussion, students, on computers, will take short quiz to test their knowledge on UFOs and aliens.

<http://www.livescience.com/19532-ufo-aliens-quiz.html>

Class will discuss their results. Students will be awarded prizes (all students will receive a prize).

If students have comments or questions about the quiz, teacher will allow discussion.

Explore - *In this phase, the students have experiences with the concepts and ideas of the lesson. Students are encouraged to work together without direct instruction from the teacher. The teacher acts as a facilitator. Students observe, question, and investigate the concepts to develop fundamental awareness of the nature of the materials and ideas.*

Teacher discusses the fact that everyone can write things on the web; although many things may be interesting and correct, we can't always be sure that everything is necessarily true and that not everyone is an expert on the subject on which they write. Since we don't always know who wrote the information or what their credentials are, we need to be alert and check information before we can trust it.

Teacher: You are going to watch a short video that will talk about guidelines on how to evaluate online resources. As you watch the video, please take note of the guidelines for trusting a website.

<https://www.youtube.com/watch?v=AFEwwG7rq0E>

After the video, discuss the guidelines introduced. Answers should include:

1. Be a skeptic.
2. Don't be fooled by cool or professional websites.
3. Ask yourself what's the point of view of the site.
4. What are they trying to get me to believe?
5. What opinions or ideas are missing?
6. Investigate the source. Find out who published the information.
7. Follow the "rule of 3:" compare 3 sources of information.
8. Be careful about facts that you find without checking them out first.

Using computers, students, with a partner, complete an online interactive tutorial about evaluating websites for credibility.

Final Unit Plan

Credible sources count interactive tutorial

<http://library.acadiau.ca/tutorials/webevaluation/>

Explain - *Students communicate what they have learned so far and figure out what it means. This phase also provides an opportunity for teachers to directly introduce a concept, process, or skill to guide students toward a deeper understanding.*

Upon completion of the online tutorial teacher will ask questions of the whole group concerning what they have learned. Using presentation tv or whiteboard, teacher will record the student responses concerning what they learned during the tutorials.

Elaborate —*Allow students to use their new knowledge and continue to explore its implications. At this stage students expand on the concepts they have learned, make connections to other related concepts, and apply their understandings to the world around them in new ways*

In order to introduce the next phase of the lesson, the teacher will pose the following questions:
What would you do if a substance that caused thousands of deaths each year was found in your neighborhood?

What if it was found in your home?

What if I told you this substance was found in our school today?

What if I told you that our principal purposely has this substance pumped into our classroom?

In groups of 2 or 3, students will visit the DHMO website and evaluate the reliability of the website using the worksheet.

After completing the sheet, the teacher will ask the students if they think that DHMO should be banned. The teacher will then reveal that DHMO is actually water... by either drinking some or some other dramatic method. It is also possible that a student will have figured this out. Teacher will pose the questions:

What is the purpose of the site? Explain

Who wrote or produced the information, and what authority or special knowledge does the author have?

If the site is credited to an organization, what do you know about that organization?

What is the domain?

What contact information is given?

Who created the site and what knowledge do they have?

What contact information is given?

Does the content give only one side of an issue? If so, do they hide their bias?

What bias or slant do you detect in the source?

What does it say that indicates a bias?

Does their bias impact the usefulness of the information? Explain.

Is the site accurate complete, well-written and relevant? Explain.

Do most of the links on the page lead to relevant information? Explain.

Are there mistakes in spelling or word usage?

Is the information presented in a clear and organized fashion? Explain.

Do any graphics, video or audio add to the content or distract? Explain.

Do ads interfere with the content?

Final Unit Plan

Did you think that DHMO should be banned?
 Teacher will present the students with a bottle of water.
 How were we fooled into banning water?
 Give your final evaluation of the site. Is the site a truthful and reliable source of information? Explain.

Evaluate: *This phase assesses both learning and teaching and can use a wide variety of informal and formal assessment strategies.*

Students will create a cartoon (using PowToon or similar) that explains the steps for evaluating a website. This will be linked to their digital poster (Glogster) which is their final product.

<https://plus.google.com/+Powtoon/videos>

TEACHER NAME		Lesson #
Reese		2
MODEL	CONTENT AREA	GRADE LEVEL
questioning	Language Arts and Media Literacy	Middle school
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Credibility		Media requires evaluation of credibility
LEARNING OBJECTIVES <i>(from State/Local Curriculum)</i>		
Language Arts Reading Informational Text RI.7.8 Comprehending messages and using critical thinking to analyze message quality, veracity, credibility, and point of view, while considering potential effects or consequences of messages SL.7.1 Pose questions that elicit elaboration and respond to others' questions and comments with relevant observations and ideas that bring the discussion back on topic as needed <u>CCSS.ELA-LITERACY.RI.7.8</u> Trace and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient to support the claims. <u>CCSS.ELA-LITERACY.RI.7.5</u> Analyze the structure an author uses to organize a text, including how the major sections contribute to the whole and to the development of the ideas. <u>CCSS.ELA-LITERACY.RI.7.4</u> Determine the meaning of words and phrases as they are used in a text,		

Final Unit Plan

including figurative, connotative, and technical meanings; analyze the impact of a specific word choice on meaning and tone.	
THE ESSENTIAL UNDERSTANDING <i>(What is the overarching idea students will understand as a result of this lesson?)</i>	THE ESSENTIAL QUESTION <i>(What question will be asked to lead students to “uncover” the Essential Understanding)</i>
Evaluation informs credibility	How do you evaluate websites for credibility?
CONTENT KNOWLEDGE <i>(What factual information will students learn in this lesson?)</i>	PROCESS SKILLS <i>(What will students be able to do as a result of this lesson?)</i>
<p>Just because it is online does not mean that it is true.</p> <p>Misinformation on the internet can be categorized according to the publisher’s intent</p> <ul style="list-style-type: none"> • Accidental misinformation due to carelessness • Malicious counterfeit sites that disguise themselves as legitimate sites for the purpose of disseminating misinformation • Humorous counterfeit sites that parody or spoof persons, companies, and organizations. <p>There are guidelines for evaluating what information can and cannot be trusted (introduced in Lesson 1) which include checking:</p> <ul style="list-style-type: none"> • credentials of author(s) • domain name in the URL • plausibility of the claims • professional presentation such as use of graphics and functioning links • date that the website was published or updated <p>People publish counterfeit (or hoax) websites for a variety of reasons</p>	<p>Students will evaluate and compare online resources for quality and validity.</p> <p>Students will discuss and infer possible reasons why people deliberately perpetrate a hoax on the internet (and other media).</p> <p>Students will evaluate and compare and contrast websites which contain misinformation, and evaluate the writer’s intent (or purpose) in perpetrating the hoax.</p>

Final Unit Plan

GUIDING QUESTIONS			
<i>What questions will be asked to support instruction? Include both "lesson plan level" questions as well as questions designed to guide students to the essential understanding</i>			
Pre-Lesson Questions:	During Lesson Questions:	Post Lesson Questions:	
<p>What does credibility mean? What does hoax mean? What do you see in the photograph? Why did the young girls create this hoax? Are there any examples from history where people created a hoax? How is a hoax different from other types of misinformation? The next example of a hoax is also a picture. How does this hoax compare to the Cottingley fairies hoax? What can you see in this image?</p>	<p>Why should you ascertain the purpose of the site? What is the domain? Who created the site and what knowledge do they have? What contact information is given? Does the content give only one side of an issue? If so, do the authors hide their bias? How does the bias of the author(s) impact the information presented? How can you judge how accurate, complete, well-written and relevant the site is? When was the site last updated? How relevant are the links that are provided on the page? Explain. How accurate is the spelling and word usage? If there are ads on the site, how do they detract or contribute to the content?</p>	<p>Which website did you explore that was highly reliable, credible and valid? What about the website made you think that it was reliable, credible and valid? Which website did you explore that was highly unreliable and invalid? What about the website made you think that it was unreliable and invalid?</p>	
DIFFERENTIATION			
<i>(Describe how the planned learning experience has been modified to meet the needs of gifted learners. Note: Modifications may be in one or more of the areas below. Only provide details for the area(s) that have been differentiated for this lesson.</i>			
Content	Process	Product	Learning Environment
	<p>Higher Levels of thinking Open-endedness Discovery Evidence of reasoning</p>	<p>Result from Real Problems</p>	<p>Learner Centered vs. Teacher Centered</p>

Final Unit Plan

PLANNED LEARNING EXPERIENCES

(What will the teacher input? What will the students be asked to do? For clarity, please provide detailed instructions)

Engage and Connect - *This phase focuses on piquing students' interest and helping them access prior knowledge. This is the introduction to the lesson that motivates or hooks the students.*

Show students the picture (in powerpoint). Teacher: What do you see?

Possible answers:

black and white photo... looks old

girl not looking at the fairies

waterfall in left of frame

one of the fairies does not have wings

fairies do not have shadows

fairies are much lighter in exposure than the girl



Teacher shows powerpoint that explains about the Cottingley Fairies hoax. Teacher shows the next picture.

Final Unit Plan



Teacher: How does this hoax compare to the Cottingley fairies hoax?

Possible responses:

Both are black and white

Both show a person with a paranormal creature

The world news photo was published in a newspaper

The world news photo has a caption

The world news photo was probably photo-shopped, whereas the girl in the fairy photo is posing with a cardboard cutout.

The purpose of both photos is to mislead.

Final Unit Plan



Teacher: What can you see in this image?

Possible responses:

alien looks too large for space ship

Steam or smoke coming from vessel

Someone or something visible in window of house

Spacecraft (on left) appears to be propped up

Teacher: A hoax is a deception that can be malicious or humorous. Why might someone perpetrate this hoax?

Possible responses:

For attention

To scare people

Teacher informs students that the picture is of a yard that was decorated for Halloween.

Explore - *In this phase, the students have experiences with the concepts and ideas of the lesson. Students are encouraged to work together without direct instruction from the teacher. The teacher acts as a facilitator. Students observe, question, and investigate the concepts to develop fundamental awareness of the nature of the materials and ideas.*

Teacher: Now you will look at two websites. One is a hoax and one is real. Which is which? How do you know?

Students will work with partners to evaluate a pair of websites (one hoax and one real). The teacher will give each student a blank copy of the Is This a Hoax? evaluation sheet for students to fill in as they work.

Final Unit Plan

Dog Island

<http://www.thedogisland.com/>

Dog resorts

<http://www.clubpetresorts.com/>

Explain - *Students communicate what they have learned so far and figure out what it means. This phase also provides an opportunity for teachers to directly introduce a concept, process, or skill to guide students toward a deeper understanding.*

When groups have completed their evaluation of the websites, teacher leads discussion (as a whole class) about what students learned about the websites.

Observations should include:

The domain for Dog Island is .com, or commercial. There are many advertisements. The links all work and overall the presentation is very professional. Mostly, the site is simply unbelievable. For example, your dog will need to be interviewed. The island is free. The dogs all roam the island and there are no problems with fights, diseases, etc.

The Dog Resorts URL contains words *club*, *pets* and *resorts*. There are no links to other sites, but there are many drop down menus, all functioning. The contact information is complete. The design and layout of the text is of high quality. There is one misspelled word (in the dog boarding section).

Elaborate —*Allow students to use their new knowledge and continue to explore its implications. At this stage students expand on the concepts they have learned, make connections to other related concepts, and apply their understandings to the world around them in new ways*

Teacher: At your computer, log in. Open the Student Shared Folder. Inside the Close Encounters folder, open the document. The document contains links to a number of websites.

With a partner (or in a trio) evaluate the websites by filling in the worksheets.

(Each group will select 3 sites to evaluate.) Pairs will report back to the group (the other pair) and evaluate the sites and their reasons for ranking them the way that they did.

[Acid Rain](#)

[Aluminum Foil Deflector Beanie](#)

[Endangered Species](#)

[British Royal Family](#)

[Moon Landing Hoax](#)

[Save the Pacific Northwest Tree Octopus](#)

[spud server](#)

[Pets or food](#)

[Ninja Burger Delivery](#)

[First Male Pregnancy](#)

[Ova Prima Foundation](#)

[Large Hadron Collider](#)

Evaluate: *This phase assesses both learning and teaching and can use a wide variety of informal and formal assessment strategies.*

Teacher leads a whole class discussion of the results of the students' research. Evaluation is informal, through observation, and is based on student responses during discussion, and on their worksheets.

Questions for discussion

Which website did you explore that was highly reliable, credible and valid?

What about the website made you think that it was reliable, credible and valid?

Which website did you explore that was highly unreliable and invalid?

What about the website made you think that it was unreliable and invalid?

Students will complete their POWTOON.

Students will be introduced to Glogster.

Final Unit Plan

TEACHER NAME		Lesson #
Reese		3
MODEL	CONTENT AREA	GRADE LEVEL
	Language Arts and Media Literacy	Middle school
CONCEPTUAL LENS		LESSON TOPIC
Credibility		Media requires evaluation of credibility
LEARNING OBJECTIVES <i>(from State/Local Curriculum)</i>		
<p>Language Arts Reading Informational Text</p> <p>RI.7.8 Comprehending messages and using critical thinking to analyze message quality, veracity, credibility, and point of view, while considering potential effects or consequences of messages SL.7.1 Pose questions that elicit elaboration and respond to others’ questions and comments with relevant observations and ideas that bring the discussion back on topic as needed <u>CCSS.ELA-LITERACY.RI.7.8</u> Trace and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient to support the claims. <u>CCSS.ELA-LITERACY.RI.7.5</u> Analyze the structure an author uses to organize a text, including how the major sections contribute to the whole and to the development of the ideas. <u>CCSS.ELA-LITERACY.RI.7.4</u> Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the impact of a specific word choice on meaning and tone.</p>		

Final Unit Plan

THE ESSENTIAL UNDERSTANDING <i>(What is the overarching idea students will understand as a result of this lesson?)</i>		THE ESSENTIAL QUESTION <i>(What question will be asked to lead students to “uncover” the Essential Understanding?)</i>	
Evaluation informs credibility		How do you evaluate websites for credibility?	
CONTENT KNOWLEDGE <i>(What factual information will students learn in this lesson?)</i>		PROCESS SKILLS <i>(What will students be able to do as a result of this lesson?)</i>	
Websites can be evaluated for their purpose, the author's identity, the evidence of bias, the accuracy of the content and the design.		Students will be able to create hyperlinks on a digital poster. Students will be able to copy and paste pictures onto a digital poster. Students will be able to evaluate websites using a rubric that ranks them according to their credibility (1-10).	
GUIDING QUESTIONS <i>What questions will be asked to support instruction?</i> <i>Include both “lesson plan level” questions as well as questions designed to guide students to the essential understanding</i>			
Pre-Lesson Questions:		During Lesson Questions:	
<p>What is the evidence that intelligent life exists on other planets in the Milky Way?</p> <p>What is the evidence that alien life forms have contacted humans already?</p> <p>Why do you think that alien life forms have NOT contacted humans already?</p> <p>What is the evidence that spaceships have flown past Earth?</p> <p>How many alien civilizations did your equation predict?</p> <p>What are some factors that contribute to our lack of contact with alien civilizations thus far?</p> <p>Is this a credible website? (The Drake Equation website) Why or why not?</p>		<p>Which websites were credible? What about the website inspired your confidence?</p> <p>Which websites were not credible?</p> <p>Which part of the website led you to believe that it was not credible?</p>	
Post Lesson Questions:			
<p>Why was it difficult to assign a ranking to certain websites?</p> <p>What (if anything) could make the rubric (or worksheet) easier to work with?</p> <p>What was the most surprising website that you visited today?</p> <p>What was the most interesting website that you saw today?</p> <p>What was the most informative website that you saw today?</p>			
DIFFERENTIATION <i>(Describe how the planned learning experience has been modified to meet the needs of gifted learners. Note: Modifications may be in one or more of the areas below. Only provide details for the area(s) that have been differentiated for this lesson.</i>			
Content	Process	Product	Learning Environment
	Higher Levels of thinking Open-endedness	Result from Real Problems	Learner Centered vs.

Final Unit Plan

	Discovery Evidence of reasoning		Teacher Centered
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Final Unit Plan

PLANNED LEARNING EXPERIENCES

(What will the teacher input? What will the students be asked to do? For clarity, please provide detailed instructions)

Engage and Connect - *This phase focuses on piquing students' interest and helping them access prior knowledge. This is the introduction to the lesson that motivates or hooks the students.*

Teacher begins with discussion about the possibility of intelligent life in the universe (specifically in the Milky Way.) Students are directed to a website <http://www.pbs.org/lifebeyondearth/listening/drake.html> which is an interactive website using Drake's equation about the possibility of intelligent life in this galaxy. When students have completed the equation, students and teacher engage in whole class discussion.

How many alien civilizations did your equation predict?

What are some factors that contribute to our lack of contact with alien civilizations thus far? What about this website leads you to believe that it is a credible website? What about this website leads you to believe that it is not a credible website?

Explore - *In this phase, the students have experiences with the concepts and ideas of the lesson. Students are encouraged to work together without direct instruction from the teacher. The teacher acts as a facilitator. Students observe, question, and investigate the concepts to develop fundamental awareness of the nature of the materials and ideas.*

Teacher: Today we will explore websites that deal with intelligent life on other planets. You will be using a different rubric for evaluating websites today. (Teacher distributes paper copy of **Rubric for evaluating websites**.) Teacher explains new rubric which will enable students to evaluate websites by giving them a rank of 1 - 10, with 1 being the lowest and 10 being the highest. Students will complete a "worksheet" for each site that they evaluate. Each student will complete their own worksheets, although they may continue to work with a partner. The worksheets will not be completed on paper, but digitally. The purpose of this is to facilitate the accurate transposition of URLs.

The students are directed to the Student Share Folder (or similar sharing platform) and the rubric (**Evaluating Websites Worksheet**) will be explained. Students will be instructed to complete all parts of the worksheet for each site, and reminded to complete the comments section before leaving each site. These comments will be included in their digital poster (Performance Task.)

When students understand how to use the rubric, they will be directed to the **Websites for Evaluation** document which will have the links of the websites that they may evaluate. Working with a partner, their mission is to find 3 highly reliable sites, and 3 unreliable sites.

<http://www.alienshetruth.com/>

<http://users.erols.com/feanor17/Ufo.html>

<http://www.seti.org/>

<http://astrobiology.nasa.gov/ask-an-astrobiologist/popular/>

<http://www.kepler.arc.nasa.gov/>

<http://www.icr.org/article/can-life-exist-other-planets/>

<http://www.nicap.org/articles/hillzeta.htm>

http://www.nasa.gov/vision/earth/technologies/Life_Detector.html<http://hubpages.com/hub/milky-way>

<http://www.chacha.com/question/is-there-life-on-other-planets>

<http://www.dvorak.org/blog/2006/08/02/nasa-needs-a-plan-for-telling-the-public-about-life-on-other-planets/>

http://findarticles.com/p/articles/mi_m0EPG/is_n3_v29/ai_16657943/

http://www.science.nasa.gov/headlines/y2010/04jan_fiveplanets.htm

<http://cosmiclog.msnbc.msn.com/archive/2009/09/16/2072217.aspx>

<http://www.israel21c.org/social-action/israeli-fibers-help-nasa-locate-livable-planets-in-the-universe>

<http://earthguide.ucsd.edu/virtualmuseum/litu/litusyllabus.shtml>

http://www.gravitywarpdrive.com/Reticulan_EBE.htm

Final Unit Plan

<http://www.ufoevidence.org/>

<http://www.ufos-aliens.co.uk/>

http://www.answerbag.com/q_view/376966

<http://wehrintheworld.blogspot.com/2010/02/life-on-other-planets.html>

<http://www.alicesastroinfo.com/2009/12/answering-questions-life-on-other-planets/>

Explain - *Students communicate what they have learned so far and figure out what it means. This phase also provides an opportunity for teachers to directly introduce a concept, process, or skill to guide students toward a deeper understanding.*

When students have completed their exploration, the whole class will discuss their results.

Which websites were credible? What about the website inspired your confidence?

Which websites were not credible?

Which part of the website led you to believe that it was not credible?

Elaborate — *Allow students to use their new knowledge and continue to explore its implications. At this stage students expand on the concepts they have learned, make connections to other related concepts, and apply their understandings to the world around them in new ways*

Students, working individually, will start construction of their digital poster. For each website referenced, the students must include the:

Title of the site

URL link

Ranking of credibility 1 - 10

Comments and explanation of ranking

Picture(s)

Evaluate: *This phase assesses both learning and teaching and can use a wide variety of informal and formal assessment strategies.*

The teacher has created an answer key and a rubric for the Performance Task but will not be giving grades to the students because this is a non-graded course. The teacher will use the rubric as a mental reference while observing the students as they construct their digital posters.

Final Unit Plan

TEACHER NAME		Lesson #
Reese		4
MODEL	CONTENT AREA	GRADE LEVEL
	Language Arts and Media Literacy	Middle school
CONCEPTUAL LENS		LESSON TOPIC
Credibility		Media requires evaluation of credibility
LEARNING OBJECTIVES <i>(from State/Local Curriculum)</i>		
<p>Language Arts Reading Informational Text</p> <p>RI.7.8 Comprehending messages and using critical thinking to analyze message quality, veracity, credibility, and point of view, while considering potential effects or consequences of messages SL.7.1 Pose questions that elicit elaboration and respond to others' questions and comments with relevant observations and ideas that bring the discussion back on topic as needed <u>CCSS.ELA-LITERACY.RI.7.8</u> Trace and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient to support the claims. <u>CCSS.ELA-LITERACY.RI.7.5</u> Analyze the structure an author uses to organize a text, including how the major sections contribute to the whole and to the development of the ideas. <u>CCSS.ELA-LITERACY.RI.7.4</u> Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the impact of a specific word choice on meaning and tone.</p>		

Final Unit Plan

THE ESSENTIAL UNDERSTANDING <i>(What is the overarching idea students will understand as a result of this lesson?)</i>		THE ESSENTIAL QUESTION <i>(What question will be asked to lead students to “uncover” the Essential Understanding)</i>	
Evaluation informs credibility		How do you evaluate websites for credibility?	
CONTENT KNOWLEDGE <i>(What factual information will students learn in this lesson?)</i>		PROCESS SKILLS <i>(What will students be able to do as a result of this lesson?)</i>	
<p>Websites can be evaluated for their purpose, the author's identity, the evidence of bias, the accuracy of the content and the design.</p> <p>YouTube videos can be evaluated for their purpose, the author's identity, the evidence of bias, the accuracy of the content and the design.</p>		<p>Students will be able to create hyperlinks on a digital poster.</p> <p>Students will be able to copy and paste pictures onto a digital poster.</p> <p>Students will be able to evaluate websites using a rubric that ranks them according to their credibility (1-10).</p> <p>Students will generate possible criteria for evaluating YouTube websites.</p>	
GUIDING QUESTIONS <i>What questions will be asked to support instruction?</i> <i>Include both “lesson plan level” questions as well as questions designed to guide students to the essential understanding</i>			
Pre-Lesson Questions:		During Lesson Questions:	
<p>How are websites and You Tube similar?</p> <p>How are websites and You Tube different?</p> <p>Do you think intelligent life exists on other planets? Do you welcome or fear an alien invasion?</p>		<p>What are some criteria that would be useful in evaluating the credibility of YouTube videos?</p> <p>How does evaluating YouTube differ from evaluating websites?</p>	
Post Lesson Questions:			
<p>What makes the Stephen Hawking website credible or not credible?</p> <p>What makes the Allies of Humanity website credible or not credible?</p>			
DIFFERENTIATION <i>(Describe how the planned learning experience has been modified to meet the needs of gifted learners. Note: Modifications may be in one or more of the areas below. Only provide details for the area(s) that have been differentiated for this lesson.</i>			
Content	Process	Product	Learning Environment
	<p>Higher Levels of thinking</p> <p>Open-endedness</p> <p>Discovery</p> <p>Evidence of reasoning</p>	<p>Result from Real Problems</p>	<p>Learner Centered vs. Teacher Centered</p>

Final Unit Plan

PLANNED LEARNING EXPERIENCES

(What will the teacher input? What will the students be asked to do? For clarity, please provide detailed instructions)

Engage and Connect - *This phase focuses on piquing students' interest and helping them access prior knowledge. This is the introduction to the lesson that motivates or hooks the students.*

In pairs, students will complete a venn diagram that compares and contrasts websites and YouTube videos. Upon completion, whole class will discuss their results.

Explore - *In this phase, the students have experiences with the concepts and ideas of the lesson. Students are encouraged to work together without direct instruction from the teacher. The teacher acts as a facilitator. Students observe, question, and investigate the concepts to develop fundamental awareness of the nature of the materials and ideas.*

Students will watch two similar You Tube videos. One is by written by Stephen Hawking, the other is by an alien group named Allies of Humanity. The topic is "Encountering intelligent life." The video by the Allies of Humanity is CRAZY but the two videos are similar in many ways. In fact, the woman speaking for the allies has an electronic voice delivery system like Hawking!

Stephen Hawking

Encountering Intelligent Life

<https://www.youtube.com/watch?v=CjiRb1sy0sQ>

Allies of Humanity

https://www.youtube.com/watch?v=0gP5_03_DSY

In pairs, students generate criteria for evaluating YouTube websites. After a few minutes, the groups come together for whole class discussion. Students construct a list (while teacher or a student acts as a scribe and records answers on board) of criteria that would be useful for evaluating YouTube websites.

Possible answers:

What are the credentials of the author?

How accurate is info? Can info be verified from other sources?

How timely is the information?

What is the purpose of the video? To entertain, inform, sell, persuade

How often has the video been viewed?

What are some of the comments on the site?

Teacher: What makes the Stephen Hawking website credible or not credible?

What makes the Allies of Humanity website credible or not credible?

Teacher will assign half of the students to research Stephen Hawking and the other half to research Allies on the internet. (5 minutes)

Explain - *Students communicate what they have learned so far and figure out what it means. This phase also provides an opportunity for teachers to directly introduce a concept, process, or skill to guide students toward a deeper understanding.*

Teacher: What is the purpose of the Stephen Hawking video? What is the purpose of the Allies video?

What are the credentials of Stephen Hawking? What are the credentials of the Allies?

Possible answers; Hawking is a renowned physicist whose purpose is to inform and teach. The Allies are selling a book.

Elaborate — *Allow students to use their new knowledge and continue to explore its implications. At this stage students expand on the concepts they have learned, make connections to other related concepts, and apply their understandings to the world around them in new ways*

Students will evaluate the Stephen Hawking video and the Allies of Humanity video and write a justification for their evaluation. This will be included in their digital poster (and will count as 1 good example and 1 poor example of a

Final Unit Plan

credible website.)

Students will finish their digital posters.

Evaluate: *This phase assesses both learning and teaching and can use a wide variety of informal and formal assessment strategies.*

The teacher has created an answer key and a rubric for the Performance Task but will not be giving grades to the students because this is a non-graded course. The teacher will use the rubric as a mental reference while observing the students as they construct their digital posters.

VI. Resources

"Allies of Humanity 1." *YouTube*. YouTube, n.d. Web. 15 July 2015.

The Allies of Humanity video on YouTube serves as an example of a website that puts forth incredible ideas on the topic of life on other planets. I was drawn to it because the narration is done by an electronic voice (female) in the same way that Stephen Hawking's is done.

"Beginner & Intermediate 5: Evaluating Credibility of Sources." *Google Docs*. Google, n.d. Web. 15 July 2015.

This site provided the tutorial that students used to learn the steps involved in evaluating a website.

Bryner, Jeanna. "UFO Quiz: What's Really Out There." *LiveScience*. TechMethodia Network, 06 Apr. 2012. Web. 14 July 2015.

This website is a ten question interactive quiz about UFOs and alien encounters. It is used at the beginning of Lesson 1 as a springboard, and also as a way for the instructor to gauge how much students already know about the topic.

"COSMOS: A SPACETIME ODYSSEY - Coming in 2014." *YouTube*. YouTube, n.d. Web. 15 July 2015.

This is an excerpt from Carl Sagan's Cosmos where he describes the cosmic calendar.

"Credible Websites?" *YouTube*. YouTube, n.d. Web. 14 July 2015.

This is a 4 minute video from the Hartness Library that explains in simple terms the criteria that should be used when evaluating the credibility of websites.

"Critical Evaluation." *Kathy Schrock's Guide to Everything*. N.p., n.d. Web. 15 July 2015.

This website provided the 5 Ws worksheet that I used with students in Lesson 1 and Lesson 2.

"Dihydrogen Monoxide FAQ." *Facts About Dihydrogen Monoxide*. N.p., n.d. Web. 14 July 2015.

This is a hoax website which expounds upon the danger of DHMO. After exploring the website, the teacher explains that DHMO is water.

Drake Equation. PBS, n.d. Web. 15 July 2015.

This interactive website was used during whole class instruction. Created in 1961, the Drake Equation estimates the number of intelligent life forms in the galaxy based on the probability of factors such as stars that can support planets that can support life.

Final Unit Plan

"Free Technology for Teachers: 9 Resources for Website Evaluation Lessons." *Free Technology for Teachers: 9 Resources for Website Evaluation Lessons*. N.p., n.d. Web. 15 July 2015.

This website provided links of websites that students could use for evaluation.

"I Know What I Saw (Out of the Blue Redo) Phoenix Lights Doc 1/9." *YouTube*. YouTube, n.d. Web. 15 July 2015.

This ten minute video is informative and produced by the History Channel concerning the Phoenix Lights.

"Identifying High-Quality Sites (6-8) | Common Sense Media." *Identifying High-Quality Sites (6-8) | Common Sense Media*. N.p., n.d. Web. 15 July 2015.

I used this website as part of my research. Also, I used one of their worksheets during lesson 1.

"Nasca Lines -- National Geographic." *National Geographic*. N.p., n.d. Web. 15 July 2015.

This is an article from National Geographic about the Nasca lines in South America. I used this for early finishers.

"New Phoenix Lights - UFOS - CNN News.flv." *YouTube*. YouTube, n.d. Web. 15 July 2015.

This is a short video showing the famous Phoenix Lights.

Patterson, Nancy. "Becoming Literate in the Ways of the Web: Evaluating Internet Resources." *Voices from the Middle* 10.3 (March 2003): 58-59.

This article is good for further reading and resources.

Sagan, Carl. "Pale Blue Dot." *YouTube*. Cosmos, n.d. Web. 15 July 2015.

This is an excerpt from Cosmos in which astronomer Carl Sagan addresses the fragility of planet Earth and the likelihood of intelligent beings living nearby.

"Stephen Hawking - Encountering Intelligent Life." *YouTube*. YouTube, n.d. Web. 15 Jul. 2015.

<https://www.youtube.com/watch?v=cjirb1sy0sq>

I use this as an example of a good website. The content is highly engaging.

Strickland, Jonathan, and Patrick J. Kiger. *HowStuffWorks*. HowStuffWorks.com, n.d. Web. 15 July 2015.

This is an article about Area 51 in Roswell, New Mexico.

"The Cottingley Fairies." *Museum of Hoaxes*. N.p., n.d. Web. 15 July 2015.

I used the pictures from this website for Lesson 2 as an example of a hoax.

"The Hubble Deep Field: The Most Important Image Ever Taken." *Hubble Deep Field*. YouTube, n.d. Web. 15 July 2015.

I use this photograph to demonstrate to students the vastness of the universe.