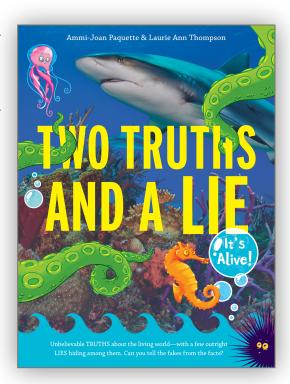
STEM Lesson Plans for **TWO TRUTHS AND A LIE: IT'S ALIVE!** (Walden Pond Press) can be downloaded for free by searching "two truths" on CuriousCityDPW.com. The activities were created by award-winning Library Media Specialist and STEM Coordinator, Suzanne Costner.

Rationale:

The ability to find and recognize accurate information is a skill that has always been part of learning to conduct a research project. Today, that skill is even more important than when the only information sources were books from the reference and nonfiction sections of the library. With online searching, students may find multiple web pages or even entire websites dedicated to the subject they have been assigned, or that has captured their interest. How are they to distinguish between what is trustworthy data and what is "fake news"?

This research project is designed to help students explore the stories from the book, TWO TRUTHS AND A LIE: IT'S ALIVE! The authors of the book have compiled sets of stories around common themes and one story from each set is untrue. By investigating the websites provided, students will learn which of the stories is fiction and which are facts. They must use a critical



stance and analyze what is presented, by whom, and for what purpose. In doing so, they will winnow out the truth and confirm it with reliable sources.

The research skills practiced in this lesson are so indispensable to modern information consumers that they are listed in the learning standards of many professional organizations. A few of the more widely-used standards are listed here for your convenience when aligning the lesson with your curriculum.

Common Core State Standards:

English/language arts CCSS.ELA-LITERACY.CCRA.R.1

Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.

CCSS.ELA-LITERACY.CCRA.R.6

Assess how point of view or purpose shapes the content and style of a text.

CCSS.ELA-LITERACY.CCRA.R.7

Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.

CCSS.ELA-LITERACY.CCRA.R.8

Delineate and evaluate the argument and specific claims in a text, including the validity of the reasoning as well as the relevance and sufficiency of the evidence.

CCSS.ELA-LITERACY.CCRA.R.10

Read and comprehend complex literary and informational texts independently and proficiently. CCSS.ELA-LITERACY.CCRA.W.8

Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism.

CCSS.ELA-LITERACY.CCRA.W.9

Draw evidence from literary or informational texts to support analysis, reflection, and research.

American Association of School Librarians Standards for 21st Century Learner:

- 1. Learners use skills, resources, & tools to inquire, think critically, and gain knowledge.
- 1.1 Skills
- 1.1.4 Find, evaluate, and select appropriate sources to answer questions.
- 1.1.5 Evaluate information found in selected sources on the basis of accuracy, validity, appropriateness for needs, importance, and social and cultural context.
- 1.1.7 Make sense of information gathered from diverse sources by identifying misconceptions, main and supporting ideas, conflicting information, and point of view or bias.
- 1.1.8 Demonstrate mastery of technology tools for accessing information and pursuing inquiry.
- 1.2 Dispositions in Action
- 1.2.2 Demonstrate confidence and self-direction by making independent choices in the selection of resources and information.
- 1.2.3 Demonstrate creativity by using multiple resources and formats.
- 1.2.4 Maintain a critical stance by questioning the validity and accuracy of all information.

International Society for Technology in Education Standards:

Knowledge Constructor

Students critically curate a variety of resources using digital tools to construct knowledge, produce creative artifacts and make meaningful learning experiences for themselves and others.

- 3a. Students plan and employ effective research strategies to locate information and other resources for their intellectual or creative pursuits.
- 3b. Students evaluate the accuracy, perspective, credibility and relevance of information, media, data or other resources.
- 3c. Students curate information from digital resources using a variety of tools and methods to create collections of artifacts that demonstrate meaningful connections or conclusions.
- 3d. Students build knowledge by actively exploring real-world issues and problems, developing ideas and theories and pursuing answers and solutions.

Partnership for 21st Century Skills (P21):

3. Information, Media and Technology Skills:

Today we live in a technology and media-suffused environment with: 1) access to an abundance of information, 2) rapid changes in technology tools, and 3) the ability to collaborate and make individual contributions on an unprecedented scale. To be effective in the 21st century, citizens and workers must be able to create, evaluate, and effectively utilize information, media, and technology.

Information Literacy:

Access and Evaluate Information

- Access information efficiently (time) and effectively (sources)
- Evaluate information critically and competently

Use and Manage Information

- · Use information accurately and creatively for the issue or problem at hand
- · Manage the flow of information from a wide variety of sources

Media Literacy:

Analyze Media

- · Understand both how and why media messages are constructed, and for what purposes
- Examine how individuals interpret messages differently, how values and points of view are included or excluded, and how media can influence beliefs and behaviors

Information and Communication Technologies Literacy:

Apply Technology Effectively

- Use technology as a tool to research, organize, evaluate and communicate information
- Use digital technologies (computers, PDAs, media players, GPS, etc.), communication/ networking tools and social networks appropriately to access, manage, integrate, evaluate and create information to successfully function in a knowledge economy

This activity may be used as an individual assignment, for partners, or for small group work. Each story has a selection of URLs provided which students may use to verify the accuracy of the story's content. Asking students to find an additional source can be used for additional practice, or as an extension activity for those who finish quickly or need extra challenge.

Suzanne Costner

is a library media specialist and STEM coordinator in an elementary school. Before finding her perfect home in the library, she taught in other classrooms for 20 years. She loves everything about children's and young adult literature, often reviewing books on her blog or for School Library Journal. Suzanne is also a science geek who enjoys building rockets and programming robots with her students. She has won many awards for the STEM program, and in 2017 she was named Tech Innovator Teacher of the Year for her school district and the C.A.P. National Aerospace Education Teacher of the Year.

Grading Rubric:

Determine how much weight you wish to give each item, then use the rubric to record scores and provide student feedback. This form is provided along with the student activity sheets in the lesson handouts.

	One source	Two sources	Three sources	Comments:
1. Student checked				
	Source one	Source two	Source three	
2. Student correctly identified the website's owner				
	Source one	Source two	Source three	
3. Student determined if author was an expert				
	Persuade	Inform	Entertain	
4. Student identified website's or author's purpose				
	Provided URL	Identified Owner	Identified Level of Expertise	
5. Student found an additional source				