www.STEAMatWork4Kids.org

	STEAMatWork4kids.org Library Lesson Plan		
Lesson Title	**LOOKING FOR QUESTIONS IN THE LIBRARY**		
Objective(s)	Students will explore STEAMatWork4Kids.org website, identify a topic of interest, and find source material to learn more. If time permits, students will ask questions about the topic that could be used as a research or experimentation project.		
National Common Core Standards for Literacy in Science & Technical Subjects	CCSS.ELA-Literacy.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.ELA-Literacy.RI.5.9 Integrate information from several texts on the same topic in order to write or speak about the subject knowledgeably. CCSS.ELA-Literacy.RST.6-8.2 Determine the central ideas or conclusions of a text; provide an accurate summary of the text distinct from prior knowledge or opinions. CCSS.ELA-Literacy.RST.6-8.9 Compare and contrast the information gained from video or multimedia sources with that gained from reading a text on the same topic.		
AASL National School Library Standards for Learners	**INQUIRE – Build new knowledge by inquiring, thinking critically, identifying problems, and developing strategies for solving problems.** **A. Think -** Learners display curiosity and initiative by: 1. Formulating questions about a personal interest or curricular topic. 2. Recalling prior and background knowledge as context for new meaning.	**CURATE – Make meaning for oneself and others by collecting, organizing, and sharing resources of personal relevance.** **A. Think –** Learners act on an information need by: 1. Determining the need to gather information. 2. Identifying possible sources of information. 3. Making critical choices about information sources to use. **B. Create -** Learners gather information appropriate to the task: 1. Seeking a variety of sources.	**EXPLORE – Discover and innovate in a growth mindset developed through experiences and reflection.** **C. Share –** Learners engage with the learning community by: 1. Expressing curiosity about a topic of personal interest or curricular relevance. **D. Grow** – Learners develop through experience and reflection: 2. Recognizing capabilities and skills that can be developed, improved, and expanded.

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Materials	• Laptop or tablet cart (1 laptop per pair/student) & LCD projector and/or Promethean Board • Questions Worksheet
Procedure	Each Roman Numeral indicates a 20 - 30-minute lesson. Lessons after Part I, lessons are optional. I. Introduce website www.STEAMatWork4Kids.org by exploring a relevant interview with a STEM professional. 1. See if students can guess what this person does by looking at the photos. 2. Read the interview article. Visit the recommended websites. 3. Show students a reference source you found in your library that sheds light on some aspect of the professional's work. For example, if you read the interview with Dr. Melissa Begay – Sleep Doctor, you could find an encyclopedia article about sleep cycles or dreams. 4. Show students how you found a nonfiction book or article in your library about the topic. Continuing with the sleep theme, you might show them *Time to Sleep* by Steve Jenkins or *The Brain: All about Our Nervous System and More*! By Seymour Simon. If you don't have any books in your library about sleep, show them how interlibrary loan works. 5. Show students a website related to your topic, for example "sleep." 6. Students explore the STEAMatWork4kids website by looking at the "Topics" page. II. Get curious about a topic 1. Chose a topic to explore either individually, in small groups, or as a class,. Students fill in the TOPIC section of their worksheet. 2. Students brainstorm a minimum of 12 questions using question starts on the worksheet, if needed. Questions can be about the topic, about the scientist, whatever-- often the first 8-10 are surface or otherwise weak questions, which is why 12 is a good number. They circle their best/favorite three questions. (10 minutes) 3. Share questions with a partner, and any questions the partners have that they didn't, but like, they write those down on their own lists. Seeing how another student thinks about a complex topic adds to everyone's understanding (5-10 min) 4. Generate a few more questions (in pairs or separately) (2-5 min) 5. Star the best questions to begin research, add only those best questions to KW chart, etc.

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	Part III. Find resources to answer your question 1. Students find three sources in the library or online to help them answer their best question. They may look for a reference source, a nonfiction book, a fiction book, an article, or a video. Ask them to find a reference source with information about their topic, a nonfiction book or article, and/or a website with information about the topic. 2. Fill in the SOURCES section of the worksheet. You may ask them to cite the source(s) they found.

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Questions in the Library Worksheet below

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Name _____

QUESTIONS IN THE LIBRARY WORKSHEET

TOPIC	Name of the STEM professional: Title of the Interview:
QUESTIONS	Possible question starters: • What is the relationship between . . . ? • Could it be...? • What is the effect of . . . • What would happen if...? • Does ___ cause ___? • What if we already knew... • What would change if ... • What is the purpose of ... • How would it be different if... • How does ____ connect to ____? • How does this fit with _____? 1. 2. 3. 4. 5. 6.

	7. 8. 9. 10. 11. 12. Other questions:
SOURCES	1. 2. 3.