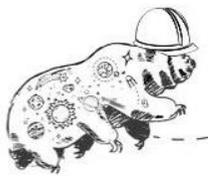
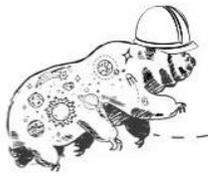




STEAMatWork4kids.org Library Lesson Plan				
<b>Lesson Title</b>	<b>LOOKING FOR QUESTIONS IN THE LIBRARY</b>			
<b>Objective(s)</b>	Students will explore STEAMatWork4Kids.org website, identify a topic of interest, and find source material to learn more. If time permits, students will ask questions about the topic that could be used as a research or experimentation project.			
<b>National Common Core Standards for Literacy in Science &amp; Technical Subjects</b>	<p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p>			
<b>AASL National School Library Standards for Learners</b>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; vertical-align: top;"> <p><b>INQUIRE – Build new knowledge by inquiring, thinking critically, identifying problems, and developing strategies for solving problems.</b></p> <p><b>A. Think</b> - Learners display curiosity and initiative by:</p> <ol style="list-style-type: none"> <li>1. Formulating questions about a personal interest or curricular topic.</li> <li>2. Recalling prior and background knowledge as context for new meaning.</li> </ol> </td> <td style="width: 33%; vertical-align: top;"> <p><b>CURATE – Make meaning for oneself and others by collecting, organizing, and sharing resources of personal relevance.</b></p> <p><b>A. Think</b> – Learners act on an information need by:</p> <ol style="list-style-type: none"> <li>1. Determining the need to gather information.</li> <li>2. Identifying possible sources of information.</li> <li>3. Making critical choices about information sources to use.</li> </ol> <p><b>B. Create</b> - Learners gather information appropriate to the task:</p> <ol style="list-style-type: none"> <li>1. Seeking a variety of sources.</li> </ol> </td> <td style="width: 33%; vertical-align: top;"> <p><b>EXPLORE – Discover and innovate in a growth mindset developed through experiences and reflection.</b></p> <p><b>C. Share</b> – Learners engage with the learning community by:</p> <ol style="list-style-type: none"> <li>1. Expressing curiosity about a topic of personal interest or curricular relevance.</li> </ol> <p><b>D. Grow</b> – Learners develop through experience and reflection:</p> <ol style="list-style-type: none"> <li>2. Recognizing capabilities and skills that can be developed, improved, and expanded.</li> </ol> </td> </tr> </table>	<p><b>INQUIRE – Build new knowledge by inquiring, thinking critically, identifying problems, and developing strategies for solving problems.</b></p> <p><b>A. Think</b> - Learners display curiosity and initiative by:</p> <ol style="list-style-type: none"> <li>1. Formulating questions about a personal interest or curricular topic.</li> <li>2. Recalling prior and background knowledge as context for new meaning.</li> </ol>	<p><b>CURATE – Make meaning for oneself and others by collecting, organizing, and sharing resources of personal relevance.</b></p> <p><b>A. Think</b> – Learners act on an information need by:</p> <ol style="list-style-type: none"> <li>1. Determining the need to gather information.</li> <li>2. Identifying possible sources of information.</li> <li>3. Making critical choices about information sources to use.</li> </ol> <p><b>B. Create</b> - Learners gather information appropriate to the task:</p> <ol style="list-style-type: none"> <li>1. Seeking a variety of sources.</li> </ol>	<p><b>EXPLORE – Discover and innovate in a growth mindset developed through experiences and reflection.</b></p> <p><b>C. Share</b> – Learners engage with the learning community by:</p> <ol style="list-style-type: none"> <li>1. Expressing curiosity about a topic of personal interest or curricular relevance.</li> </ol> <p><b>D. Grow</b> – Learners develop through experience and reflection:</p> <ol style="list-style-type: none"> <li>2. Recognizing capabilities and skills that can be developed, improved, and expanded.</li> </ol>
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STEAMatWork4kids.org Library Lesson Plan	
<b>Materials</b>	<ul style="list-style-type: none"><li>• Laptop or tablet cart (1 laptop per pair/student) &amp; LCD projector and/or Promethean Board</li><li>• Questions Worksheet</li></ul>
<b>Procedure</b>	<p>Each Roman Numeral indicates a 20 - 30-minute lesson. Lessons after Part I, lessons are optional.</p> <p>I. Introduce website <a href="http://www.STEAMatWork4Kids.org">www.STEAMatWork4Kids.org</a> by exploring a relevant interview with a STEM professional.</p> <ol style="list-style-type: none"><li>1. See if students can guess what this person does by looking at the photos.</li><li>2. Read the interview article. Visit the recommended websites.</li><li>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.</li><li>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 <i>Time to Sleep</i> by Steve Jenkins or <i>The Brain: All about Our Nervous System and More!</i> By Seymour Simon. If you don't have any books in your library about sleep, show them how interlibrary loan works.</li><li>5. Show students a website related to your topic, for example "sleep."</li><li>6. Students explore the STEAMatWork4kids website by looking at the "Topics" page.</li></ol> <p>II. Get curious about a topic</p> <ol style="list-style-type: none"><li>1. Chose a topic to explore either individually, in small groups, or as a class,. Students fill in the TOPIC section of their worksheet.</li><li>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)</li><li>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)</li><li>4. Generate a few more questions (in pairs or separately) (2-5 min)</li><li>5. Star the best questions to begin research, add only those best questions to KW chart, etc.</li></ol>



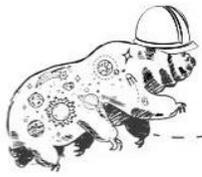
### STEAMatWork4kids.org Library Lesson Plan

#### 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.

Questions in the Library Worksheet below

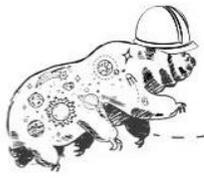




Name \_\_\_\_\_

## QUESTIONS IN THE LIBRARY WORKSHEET

TOPIC	Name of the STEM professional: Title of the Interview:
QUESTIONS	<p>Possible question starters:</p> <ul style="list-style-type: none"><li>• What is the relationship between . . . ?</li><li>• Could it be...?</li><li>• What is the effect of . . .</li><li>• What would happen if...?</li><li>• Does ___ cause ___?</li></ul> <ul style="list-style-type: none"><li>• What if we already knew...</li><li>• What would change if ...</li><li>• What is the purpose of ...</li><li>• How would it be different if...</li><li>• How does _____ connect to _____?</li><li>• How does this fit with _____?</li></ul> <p>1.</p> <p>2.</p> <p>3.</p> <p>4.</p> <p>5.</p> <p>6.</p>



	<p>7.</p> <p>8.</p> <p>9.</p> <p>10.</p> <p>11.</p> <p>12.</p> <p>Other questions:</p>
<p>SOURCES</p>	<p>1.</p> <p>2.</p> <p>3.</p>