

STEMS² Lesson Plan

Kilo to Wonder

Lesson 3

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Lesson Objective(s):

K-2-SEP4.1: Record information (observations, thoughts, and ideas).

K-2-SEP4.2: Use and share pictures, drawings, and/or writings of observations.

K-2-SEP4.3: Use observations (firsthand or from media) to describe patterns and/or relationships in the natural and designed world(s) in order to answer scientific questions and solve problems.

Inquiry Standard SS.K-2.1.2: Construct supporting questions to help answer compelling questions with guidance from adults and/or peers

Inquiry Standard SS.K-2.2.1: Determine whether a source is primarily fact or opinion

Inquiry Standard SS.K-2.2.3: Gather facts from teacher and/or adult-curated sources to answer questions

1MD2: Tell and write the time

1MD3: Represent and interpret data.

Lesson Launch Notes:

Kilo phenomenon

Lesson Closure Notes:

Checklist for share partners/Formative

- Plan has a clear wonder question
- Plan has atleast 1 resource for answering chosen, such as books, ask a knowledgable adult

Lesson Tasks, Problems, and Activities (attach resource sheets if needed):

Learning Goals: Student-Level Explanations	Lesson Activities and Steps to Learning to meet the Goals	Est. Time 60 min
<u>Lesson 3 Asking and Answering questions with a Research Plan</u> “I Wonder....” : Asking questions about the	Kilo a phenomenon In partners: Ask - <i>What does it mean to wonder?</i> Develop a definition for wonder	5 min
	KWL Chart: here is a possible handout or this one	15 min

<p>phenomenon or problem that I found is a good way to learn more about it.</p> <p>Thinking about best ways to answer my questions helps me identify good resources</p> <p>Creating a good research plan helps me organize how I will find answers to my questions.</p> <p>Finding answers to my questions helps me become an expert about my phenomenon or problem and helps to explain or problem solve it.</p>	<p>Students have had a couple of sessions of kilo of their phenomenon or problem. They will now have an opportunity to use a common graphic organizer tool to begin to develop wonder questions.</p> <p>Ask: <i>Where can we find answers to our "I Wonder.." questions?</i></p> <ul style="list-style-type: none"> ● Books ● Our teacher ● A trusted adult ● A scientist ● More kilo <p>Create a research plan: handout option</p> <ol style="list-style-type: none"> 1. Ask a "I Wonder" question (<i>think, can I find the answer to this?</i>) 2. Identify Resources (<i>think, where can I find the answer to my question/s</i>) 3. Find answers to my questions in my resources identified (<i>think, did this answer my wonder question</i>) 4. Organize my information (<i>think, how do I want to tell others about what I learned</i>) <p>Begin Research:</p> <ul style="list-style-type: none"> ● Students look for books in class ● Make a list of possible topics to ask librarian to help find, if appropriate internet search ● Make a plan to ask our Community Partner, Scientist Sarah or other expert ● Kilo <p>Share plan with a partner</p>	<p>5 min</p> <p>10 min</p> <p>20 min</p> <p>5 min</p>
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Evidence of Success:

Students have created a research plan, with a clear wonder question and at least one possible source of information to find an answer to their wonder question

Notes and Nuances:

Students of this age have a tendency to ask questions they already know the answer to. Be sure to check in and make sure their questions are ones that they need to do a little something more to find answers to them.

Resources:

[Research plan foldable](#)

Homework:

None

Lesson Reflections (if applicable):

In this lesson, I noticed that many of the students asked questions that they clearly had some knowledge about. Many did not ask completely new questions that drove curiosity. For the following lesson I engaged them in a fun “20 questions” game to try and support the understanding that when you wonder, you don’t have a lot of information about the possible answers. That when we wonder we are curious and need to do an action to find the answer, such as find a book that could tell me the answer or ask an expert.