

STEMS² Lesson Plan

Kilo to Wonder

Lesson 4 (The Research Project)

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Lesson Objective(s):

Writing **1.W.2**: Write informative/explanatory texts in which they name a topic, supply some facts about the topic, and provide some sense of closure.

Writing **1.W.8** With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.

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:

Self Assessment

Teaching Tool Requirements Checklist:

- Title
- Image/Drawing of your phenomenon
- Labels and explanations
- Steps of research outlined
- “**Did you know....**”written statement

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>Research Project</u>	<p>Begin with a Review of Wonder Questions meaning: Teacher background: Sometimes 1st graders don't have a complete understanding of Wonder, working on building this explanation in is key to this unit. Talk about wonder questions many times throughout the day, and remind students that to wonder about something means you don't know the answer, you have to do more work to find the answer.</p> <ul style="list-style-type: none"> ● Play 20 questions to build an understanding of what wonder means in this context. ● Revisit the Working Definition of "Wonder": <ul style="list-style-type: none"> ○ <i>Be sure students are understanding that in this context wonder means to ask questions you don't already know the answer to about a phenomenon you noticed or you have observed. It means to be curious about something.</i> ● Revisit research questions <ul style="list-style-type: none"> ○ Utilizing this KWL Chart explore what the students already know and what they want to learn more about. ○ allow time for students to explore their wonder questions again and rewrite new ones or edit old ones to fit their CURIOSITIES <p>Finding Answers to their questions: Using the research plan foldable and kilo journals have students write their research question Students will research and develop a project to share their learning about their phenomenon and answer their wonder questions. Ask: How are you going to tell others about what you have learned about your phenomenon?</p> <p>Design a Tool: Students will choose one project/product they will create to teach their classmates about their phenomenon. Examples are: Posters, kilo journals, maps to find their phenomenon, art piece, poetry, story, etc.</p>	Several days

Evidence of Success:

Students have an outline or model of their tool to teach others about the phenomenon created.

They have a title, drawing, labels, and sentence stem: “Did you know....” to start an explanation.

Notes and Nuances:

This activity will need teacher guidance. Preview student questions and make a plan for supporting research efforts.

Resources:

[KWL Chart](#)

Homework:

None

Lesson Reflections (if applicable):