

TEACHING ACTIVITY PLAN for 1st Grade Science

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ELA/Math (circle one) Objectives and Common Core/Next Generation Standard:

- CCSS.ELA-LITERACY.CCRA.R.2
- CCSS.ELA-LITERACY.CCRA.SL.1
- CCSS.ELA-LITERACY.CCRA.W.1

ETS1-1 Asking Questions and Defining Problems

Define a simple problem that can be solved through the development of a new or improved object or tool.


- Constructing Explanations and Designing Solutions Constructing explanations and designing solutions in K–2 builds on prior experiences and progresses to the use of evidence and ideas in constructing evidence-based accounts of natural phenomena and designing solutions.
- ■ Make observations (firsthand or from media) to construct an evidence-based account for natural phenomena. (1-LS3-1)
- ■ Use materials to design a device that solves a specific problem or a solution to a specific problem. (1-LS1-1)

Lesson Objective: After reviewing the mistakes that were made in creating their tower, students will watch a read aloud of *Ada Twist: Scientist* by Andrea Beaty, and answer questions on the book. They will and address next year's first graders using Flipgrid they will tell them why it is necessary for scientists to fail well and all that they have learned about the need for a growth mindset in first grade as well as in science and engineering.

*Please add any worksheets, handouts, presentations, assessments, and other materials or printouts you will be using during the tutoring session to this plan. Describe the activity in each section and **indicate high/low technology** being used for each part of the activity:*

Motivation	Students will discuss their experience making their tower and address whether they had learned from their mistakes. It is important to remember that the only way to learn how to build a successful tower is to experiment and take risks. Making those mistakes is just another part of learning! With this in mind, we will be introducing a new book.
Pre-Assessment Aligned with Objective	Students will be asked the question after a read-aloud review from the book <i>The Girl Who Never Made Mistakes</i> by Mark Pett: https://www.youtube.com/watch?v=oQG4vFGd6eU What did you learned about making mistakes from the read-aloud of <i>The Girl Who Never Made Mistakes</i> ?
Overview of Instructional Activities	Students will watch the video https://www.youtube.com/watch?v=5tQcSKH37AY on <i>Ada Twist, Scientist</i> by Andrea Beaty. Students will keep these discussion questions in mind while they are watching the video.
<i>*Remember to include differentiation in either the</i>	Questions: <i>What are some of the questions Ada had?</i> <i>What kind of traits does Ada have that make her a good scientist?</i> <i>What was the question Ada was trying to figure out the answer to?</i> <i>How did Ada try to answer her question?</i>

<p>Activities or Strategies section.</p>	<p><i>Was trying to answer Ada's question easy or difficult?</i> <i>What were some of the mistakes Ada made?</i> <i>Did Ada find a final answer to her question?</i> <i>Does that mean she failed?</i> <i>How do you think Ada failed well?</i> <i>Do scientists need to fail well to find results?</i></p> <p>Learning Target: Students will be able to answer the question, "Do scientists need to fail well?"</p> <p>Differentiation: <u>Technology</u>- Opening Video Allows all learners to visually engage. Flipgrid allow students to answer questions using technology. <u>Discussion Questions</u>- Getting to answer these at their own pace and keeping students engaged in the read aloud. <u>Questioning</u>- (Literal-Inferential-Metacognitive) Allows for differentiation of questioning. To trigger Recognition, Strategic and Affective brain networks this lesson includes visual and auditory supports, Hi/Low technology, student choices and scaffolding activities</p> <p>UDL- Checkpoint 1.3 - Offer alternatives for visual information: Allow for a competent aide, partner, or "intervener" to read text aloud Illustrate through multiple media:</p> <p>Checkpoint 2.5-Make explicit links between information provided in texts and any accompanying representation of that information in illustrations, equations, charts, or diagrams</p> <p>Checkpoint 3.1- Activate or supply background knowledge: Anchor instruction by linking to and activating relevant prior knowledge (e.g. using visual imagery, concept anchoring, or concept mastery routines)</p>
<p>Instructional Strategies</p>	<p>Discussion- This will be evident in various ways. When students start to discuss their experiences in building their towers, while they are discussing the questions from the read aloud video, and when they create their Flip grid that is explaining the concept of having a growth mindset.</p> <p>Scaffolding- This will be evident when students are answering the discussion questions that lead into the activity, discussing the conclusions they made, and connecting those conclusions to the activity.</p> <p>m</p>
<p>Resources</p>	<p>-Youtube read-alouds: <i>The Girl Who Never Made Mistakes</i> https://www.youtube.com/watch?v=oQG4vFGd6eU <i>Ada Twist, Scientist</i> https://www.youtube.com/watch?v=5tQcSKH37AY -FlipGrid: https://flipgrid.com/leonardi0147 -PowerPoint</p>

Post-Assessment Aligned with objective	<p>Students will create a flipgrid response that will address next year's first graders by answering the question of "why it is necessary for scientists to fail well?"</p> <p>Students will also answer these questions:</p> <ul style="list-style-type: none">■ What does it mean to have a growth mindset?■ What does it mean to fail well?■ What are the ways that you may have failed well in first grade?■ Why is it important for us to sometimes make mistakes as we try out new ideas?■ How are our mistakes like those made by scientists and engineers show that we are all failing well? <div style="text-align: center;"></div> <p>FlipGrid: https://flipgrid.com/leonardi0147</p>
Independent Practice	<p>Students will be able to explain to next year's first graders what a growth mindset is and why it is important continue to practice having a growth mindset while failing well.</p>