

STEM LAB	K-2	August 26 - 28, 2020 August 31 - September 25, 2020	T. Hines
Common Core Standards	Learning Target	Strategies/Activities	Questioning
<p><b>Practical Living</b> PL-EP-1; PL-EP-1.1,2; PL-EP-1.19</p> <p><b>Science Standards</b></p> <p>K-2-ETS1-1 Ask questions, make observations, and gather information about a situation people want to change, to define a simple problem that can be solved through the development of a new or improved object or tool. K-2-ETS1-2 Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.</p> <p><b>Science Practices</b></p> <p>*Ask and/or identify questions that can be answered by an investigation. *With guidance, plan and conduct an investigation in collaboration with peers (for K). *Plan and conduct an investigation collaboratively to produce data to serve as the basis for evidence to answer a question. *Record information (observations, thoughts, and ideas). *Make predictions based on prior experiences. *Compare predictions (based on prior experiences) to what occurred (observable events). *Use and share pictures, drawings, and/or writings of observations.</p> <p><b>Crosscutting Concepts</b> <b>Cause and Effect</b> Simple tests can be designed to gather evidence to support or refute student ideas about causes.</p>	<p>Monday</p> <p><b>SWBAT</b> follow directions and interact appropriately in the classroom and with my peers.</p>	<p><b>Crafting Activity:</b> August 26-28: Watch video of special area teachers giving expectations for virtual learning. August 31-Sept. 25: 1. <b>Get to know you activity with Google Slide, Introduction to STEM Lab with Get to Know you Disney Would you Rather Activity.</b> Virtually students share on a padlet. In-person, students will make motions to show answers. <a href="https://docs.google.com/presentation/d/19m9kKpGAhVKhcu0ur7vCVcbIU6fmW11pL537m41Uhtc/edit?usp=sharing">https://docs.google.com/presentation/d/19m9kKpGAhVKhcu0ur7vCVcbIU6fmW11pL537m41Uhtc/edit?usp=sharing</a> 2. Follow directions activity with Olaf Says..."Sweep the floors" (variation of Simon Says)</p> <p><b>Brain Break:</b> "Alive, Alert, Awake"- <a href="https://app.gonoodle.com/activities/alive-alert-awake?sp=discover&amp;sn=08/31/20-Themed-FP-Back%20to%20School&amp;t=theme%20modules&amp;sid=1826&amp;x=1&amp;y=1&amp;mft=visual%20QW">https://app.gonoodle.com/activities/alive-alert-awake?sp=discover&amp;sn=08/31/20-Themed-FP-Back%20to%20School&amp;t=theme%20modules&amp;sid=1826&amp;x=1&amp;y=1&amp;mft=visual%20QW</a></p> <p><b>Vocabulary:</b> Science Lab, PRIDE expectations, rules, enter, exit, listen, follow directions</p> <p><b>Video:</b> "Classroom Rules"- <a href="http://www.viewpure.com/ddvTFgzkS5M?start=0&amp;end=0">http://www.viewpure.com/ddvTFgzkS5M?start=0&amp;end=0</a></p>	<p><b>Essential:</b> What are the rules/expectations in the Stem Lab? How do we show respect in the lab?</p> <p><b>Debrief:</b> What did you learn about your classmates today?</p>
	<p>Tuesday</p> <p><b>SWBAT</b> follow directions and interact appropriately in the classroom and with my peers.</p> <p><b>SWBAT</b> use the scientific method.</p>	<p><b>Crafting Activity:</b> Watch Mrs. Hines's direct instruction concerning virtual PRIDE expectations. <b>HERE</b> Watch Mrs. Hines STEM Challenge and OPTIONAL Response using Flipgrid <b>HERE.</b> <b>Watch</b> an example of the Challenge.</p> <p><b>Vocabulary:</b> teamwork, share, cooperate, communicate, challenge</p> <p><b>Video:</b> "Teamwork"- <a href="http://www.viewpure.com/LnXGGI2FS1Q?start=0&amp;end=0">http://www.viewpure.com/LnXGGI2FS1Q?start=0&amp;end=0</a> Problem- Solving: Choose one Ormie the Pig Wants a Cookie: <a href="https://safeYouTube.net/w/V0oX">https://safeYouTube.net/w/V0oX</a> Let Me In - Simmons Cat: <a href="https://safeYouTube.net/w/pCoX">https://safeYouTube.net/w/pCoX</a> Let Me Out - Simmons Cat: <a href="https://safeYouTube.net/w/lMoX">https://safeYouTube.net/w/lMoX</a> Sweet Cocoon: <a href="https://safeYouTube.net/w/wYoX">https://safeYouTube.net/w/wYoX</a></p>	<p><b>Flashback:</b> What did you learn about your classmates yesterday?</p> <p><b>Essential:</b> What are the rules/expectations in the Stem Lab?</p> <p><b>Debrief:</b> How do scientists problem solve?</p>
	<p>Wednesday</p> <p><b>SWBAT</b> tell what STEM means.</p> <p><b>SWBAT</b> identify the scientific method.</p>	<p><b>Crafting Activity:</b> Watch these videos to discover what STEM means. <b>S= Science</b> <b>T= Technology</b> <b>E= Engineering</b> <b>M= Math</b></p>	<p><b>Flashback:</b> Describe how you show PRIDE in the STEM lab.</p> <p><b>Essential:</b> What is a scientist?</p> <p><b>Debrief:</b> What is the scientific method?</p>

		<p>Discuss what is a scientist:  <a href="https://www.generationgenius.com/videolessons/introduction-to-science-video-for-kids/">https://www.generationgenius.com/videolessons/introduction-to-science-video-for-kids/</a>. Do 30 circles challenge (in-person) activity.  <b>Vocabulary:</b> science, scientist, scientific method, ask, research, hypothesis, experiment, analysis, conclusion  <b>Brain Break:</b> "Bear Breath"-  <a href="https://app.gonoodle.com/activities/bear-breath?sp=channel&amp;sn=Moose%20Tube&amp;st=channels&amp;sid=18&amp;cs=moose-tube">https://app.gonoodle.com/activities/bear-breath?sp=channel&amp;sn=Moose%20Tube&amp;st=channels&amp;sid=18&amp;cs=moose-tube</a>  <b>Video:</b> Scientific Method Song: <a href="https://safeyoutube.net/w/rtaR">https://safeyoutube.net/w/rtaR</a></p>	
Thursday			
<p><b>SWBAT</b> use the engineering design process to create a structure out of one sheet of paper that will hold a book two inches above the table for ten seconds.</p>	<p><b>Crafting Activity:</b></p> <ol style="list-style-type: none"> <li>1. Check out the Engineering Design Process described as a <a href="#">taco party</a></li> <li>2. <a href="#">Watch</a> Mrs. Hines STEM Challenge</li> <li>3. Directions for Paper STEM Challenge <a href="#">HERE</a>.</li> <li>4. If you have time now or during flex time, check out Elephant vs Ant <a href="#">HERE</a>.</li> </ol> <p><b>Vocabulary:</b> STEM, engineering, design, process, structure, tool</p>	<p><b>Flashback:</b> What is the scientific method and when is it used?</p> <p><b>Essential:</b> How strong is a piece of paper? Why does a scientist go through the steps of the engineering design process? How can you relate your structure to nature?</p> <p><b>Debrief:</b> How does the Engineering Design process help a scientist?</p>	
Friday			
<p><b>SWBAT</b> make observations and ask questions.</p> <p><b>SWBAT</b> draw an accurate, big, colorful, detailed diagram.</p>	<p><b>Crafting Activity:</b>  Engineers Question and Observe. Check out this Mystery Science on <a href="#">Questioning</a>. Use our <a href="#">ABCD</a> diagram to draw up close details of an item of your choice. Just use a regular sheet of paper. You don't have to do the hand like in the video. You can do your foot, dog's paw, lego block, etc. Have fun!  OPTIONAL: You can add your drawing to <a href="#">this padlet</a>.  Brain Break: Bears, Ninjas, Cowboys (paper,rock, scissors movement activity)</p>	<p><b>Flashback:</b>How does the Engineering Design process help scientists?</p> <p><b>Essential:</b> What is the purpose of questioning and diagraming in science?</p> <p><b>Debrief:</b> How would you have changed your design?</p>	

STEM LAB	3-5	August 26 - 28, 2020 August 31 - September 25, 2020	T. Hines
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<p><b>Practical Living</b>  PL-EP-1; PL-EP-1.1.2; PL-EP-1.19</p> <p><b>Science</b></p> <p>3-5-ETS1-1 Define a simple design problem reflecting a need or a want that</p>	Monday		

includes specified criteria for success and constraints on materials, time, or cost.  
 3-5-ETS1-2 Generate and compare multiple possible solutions to problem based on how well each is likely to meet the criteria and constraints of the problem.

3-5-ETS1-1 Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.  
 3-5-ETS1-2 Generate and compare multiple possible solutions to problem based on how well each is likely to meet the criteria and constraints of the problem.  
 3-5-ETS1-3 Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that be improved.

### Science Practices

- \*Identify scientific (testable) and non-scientific (non-testable) questions.
- \*Plan and conduct an investigation collaboratively to produce data to serve as the basis for evidence, using fair tests in which variables are controlled and the number of trials considered.
- \*Represent data in tables and/or various graphical displays (bar graphs, pictographs and/or pie charts) to reveal patterns that indicate relationships.
- \*Compare and contrast data collected by different groups in order to discuss similarities and differences in their findings.

### Crosscutting Concepts

- Patterns**  
Patterns of change can be used to make predictions.
- Cause and Effect**  
Cause and effect relationships are routinely identified.  
Cause and effect relationships are routinely identified, tested, and used to explain change.

**SWBAT** follow directions and interact appropriately in the classroom and with my peers.

**Crafting Activity:** August 26-28: Watch video of special area teachers giving expectations for virtual learning. August 31-Sept. 25: 1. Get to know you activity with Google Slide, Introduction to STEM Lab with Get to Know you Disney Would you Rather Activity. Virtually students share on a padlet. In-person, students will make motions to show answers. <https://docs.google.com/presentation/d/19m9kKpGhVKhcu0ur7vCVcbIU6fmW11pL537m41Uhtc/edit?usp=sharing> 2. Follow directions activity with Olaf Says..."Sweep the floors" (variation of Simon Says)

**Brain Break:** "Alive, Alert, Awake"-  
<https://app.gonoodle.com/activities/alive-alert-awake?sp=discover&sn=08/31/20-Themed-FP-Back%20to%20School&t=theme%20modules&sid=1826&x=1&y=1&mft=visual%20r>  
 OW

**Vocabulary:** Science Lab, PRIDE expectations, rules, enter, exit, listen, follow directions

**Video:** "Classroom Rules"-  
<http://www.viewpure.com/ddvTFgzkS5M?start=0&end=0>

**Essential:** What are the rules/expectations in the Stem Lab? How do we show respect in the lab?

**Debrief:** What did you learn about your classmates today?

### Tuesday

**SWBAT** follow directions and interact appropriately in the classroom and with my peers.

**SWBAT** use the scientific method.

**Crafting Activity:** Watch Mrs. Hines's direct instruction concerning virtual PRIDE expectations. [HERE](#) Watch Mrs. Hines STEM Challenge and OPTIONAL Response using Flipgrid [HERE](#). [Watch](#) an example of the Challenge.

**Vocabulary:** teamwork, share, cooperate, communicate, challenge

**Video:** "Teamwork"-  
<http://www.viewpure.com/LnXGGI2FS1Q?start=0&end=0>

Problem- Solving: Choose one  
 Ormie the Pig Wants a Cookie: <https://safeYouTube.net/w/V0oX>  
 Let Me In - Simmons Cat: <https://safeYouTube.net/w/pCoX>  
 Let Me Out - Simmons Cat: <https://safeYouTube.net/w/IMoX>  
 Sweet Cocoon: <https://safeYouTube.net/w/wYoX>

**Flashback:** What did you learn about your classmates yesterday?

**Essential:** What are the rules/expectations in the Stem Lab?

**Debrief:** How do scientists problem solve?

### Wednesday

**SWBAT** tell what STEM means.

**SWBAT** identify the scientific method

**Crafting Activity:** Watch these videos to discover what STEM means.

**S= Science**  
**T= Technology**  
**E= Engineering**  
**M= Math**

Discuss what is a scientist:  
<https://www.generationgenius.com/videolessons/introduction-to-science-video-for-kids/>. Do 30 circles challenge (in-person) activity.

**Vocabulary:** science, scientist, scientific method, ask, research, hypothesis, experiment, analysis, conclusion

**Brain Break:** "Bear Breath"-  
<https://app.gonoodle.com/activities/bear-breath?sp=channel&sn=Moose%20Tube&st=channels&sid=18&cs=moose-tube>

**Video:** Scientific Method Song: <https://safeyoutube.net/w/rtaR>

**Flashback:** Describe how you show PRIDE in the STEM lab.

**Essential:** What is a scientist?

**Debrief:** What is the scientific method?

Thursday		
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