

Emerson Middle School Integrated Lesson Form

Title: Week 4: September 2-6

Lesson Description: SEPS/Life's Organization

<p>Educator</p>	<p>Name: Elena Mackey A+ School: EMS Grade level/subject area: 7th Grade Science</p>
<p>Curriculum & Arts</p>	<p>Overarching Concept: The Scientific Method Essential Question(s) and/or Focus Question(s):</p> <p>What is mass?</p> <p>How do theory and law differ?</p> <p>What are the levels of organization for living things?</p> <p>What environmental factors affect plant growth?</p> <p>How do you find the density using volume?</p> <p>Disciplines Addressed: 21st Century skills:</p> <p><input type="checkbox"/> dance <input type="checkbox"/> music <input type="checkbox"/> visual arts <input checked="" type="checkbox"/> creativity <input type="checkbox"/> drama <input checked="" type="checkbox"/> reading <input checked="" type="checkbox"/> writing <input checked="" type="checkbox"/> problem solving <input type="checkbox"/> language arts <input checked="" type="checkbox"/> science <input type="checkbox"/> other: <input checked="" type="checkbox"/> technology <input checked="" type="checkbox"/> math <input type="checkbox"/> social studies <input checked="" type="checkbox"/> collaboration</p> <p>Curricular connections/instructional objectives: (state standards, etc.) Science and Engineering Practice 5 MS LS 1-5</p>
<p>Enriched Assessment</p>	<p>Ways to assess/evaluate students' understanding during and at the conclusion of the lesson</p> <p>Formative:</p> <p>Students will use problem solving and critical thinking to match the target mass of a given object.</p> <p>Students will compare and contrast scientific law and scientific theory</p>

	<p>Students will analyze various organizations and compare the organizations parts with the levels of life's organization</p> <p>Summative: Students will complete a measurement test. They will discuss the questions they got wrong with a partner and give the reason behind the correct answer.</p> <p>Note any unexpected outcomes with students and how they affected next steps:</p>								
<p>Collaboration</p>	<p>How will collaboration be used: (between students, fellow teachers, or anyone with potential expertise):</p> <p>Students will work in pairs to make corrections to their measurement test.</p> <p>Students will work in pairs to draw a picture comparing the levels of life's organization to well known organizations.</p> <p>Students will work in pairs to match the mass of a given object</p>								
<p>Multiple Learning Pathways</p>	<p>Multiple Intelligences addressed within lesson: (check all that apply)</p> <table border="0"> <tr> <td><input checked="" type="checkbox"/>_x_bodily/kinesthetic</td> <td><input type="checkbox"/>_musical-rhythmic</td> </tr> <tr> <td><input checked="" type="checkbox"/>_x_interpersonal</td> <td><input type="checkbox"/>_naturalist</td> </tr> <tr> <td><input checked="" type="checkbox"/>_x_Intrapersonal</td> <td><input checked="" type="checkbox"/>_x_veral-linguistic</td> </tr> <tr> <td><input checked="" type="checkbox"/>_x_logical-mathematical</td> <td><input checked="" type="checkbox"/>_x_visual spatial</td> </tr> </table>	<input checked="" type="checkbox"/> _x_bodily/kinesthetic	<input type="checkbox"/> _musical-rhythmic	<input checked="" type="checkbox"/> _x_interpersonal	<input type="checkbox"/> _naturalist	<input checked="" type="checkbox"/> _x_Intrapersonal	<input checked="" type="checkbox"/> _x_veral-linguistic	<input checked="" type="checkbox"/> _x_logical-mathematical	<input checked="" type="checkbox"/> _x_visual spatial
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Infrastructure

Classroom Infrastructure/Setup:
Timeframe (example: length of unit, number and length of lesson(s):
Space:
Material:
Resources/books/websites/other information sources:

Monday(10 min)

- A. Name the steps of the Scientific Method (**In order**) from your reading on your presentation assignment.
- B. Describe each step in five words.

Finish Target Mass Lab(15 min)
4th Hour: Work on presentations

Scientific Review Kahoot (15 min)

<https://create.kahoot.it/details/scientific-method/262f0fa1-8c5f-45ef-a459-255f21f9dff2>

Tuesday:

Bellwork: (10 min)

Look at the comparison between law and theory.

Comparing Scientific Theory and Scientific Law	
Scientific Theory	Scientific Law
A scientific theory is based on repeated observations and scientific investigations.	Scientific laws are observations of similar events that have been observed repeatedly.
If new information does not support a scientific theory, the theory will be modified or rejected.	If many new observations do not follow the law, the law is rejected.
A scientific theory attempts to explain why something happens.	A scientific law states that something will happen.
A scientific theory usually is more complex than a scientific law and might contain many well-supported hypotheses.	A scientific law usually is based on one well-supported hypothesis that states that something will happen.

- A. Write **three similarities** about a scientific law and a scientific theory.

- B. Write **three differences** between a scientific theory and a scientific law.
- C. Write a three word definition of each word.

Review about rulers (5 min)

Measurement Practice Test (20 min)

Wednesday:

Bellwork: (7 min)

Look at the picture below.

- A. How many centimeters are in a meter?
- B. How many millimeters are in a meter?
- C. How long is the ribbon in centimeters?
- D. How long is the ribbon in millimeters?



Life organization video 2:45

<https://www.youtube.com/watch?v=SzKKYYIJJ-c>

Life Organization Worksheet (15 min)

https://docs.google.com/document/d/1EEpK5N_LzVGfnGLALtW4m0CrdcR5zx4DXbCxi-4-x7U/edit

Life's Organization Application Project (30 minutes)

<https://docs.google.com/document/d/15vAqAkMwdYZauEvlmJBt3JsyLaCZT6P35pwxh5tiqVs/edit>

Exit List the organization of life levels in order (5 min)

	<p>Thursday Bellwork List the 5 organizational levels of life from smallest to largest.(7 min)</p> <p>Work on Project (15 min) What Plants need (5 min) https://www.youtube.com/watch?v=KF4cMHtmhDE</p> <p>List 4 things that plants need from the video and explain why they need it (7 min)</p> <p>Work in pairs to correct the measurement practice test (10 min)</p> <p>Friday No School-PD</p>								
<p>Experiential Learning & Climate</p>	<p>Steps/Process: (You may share by using this form, video, photostory, powerpoint, etc.) Please attach rubric, checklist or other assessment tool, if applicable.</p>								
<p>ISTE standards</p>	<p>Check all that apply:</p> <table border="0"> <tr> <td><input checked="" type="checkbox"/>_Empowered learner</td> <td><input checked="" type="checkbox"/>_Digital citizen</td> </tr> <tr> <td><input checked="" type="checkbox"/>_Knowledge constructor</td> <td><input checked="" type="checkbox"/>_Innovative designer</td> </tr> <tr> <td><input checked="" type="checkbox"/>_Computational thinker communicator</td> <td><input checked="" type="checkbox"/>_Creative</td> </tr> <tr> <td><input type="checkbox"/>_Global collaborator</td> <td></td> </tr> </table>	<input checked="" type="checkbox"/> _Empowered learner	<input checked="" type="checkbox"/> _Digital citizen	<input checked="" type="checkbox"/> _Knowledge constructor	<input checked="" type="checkbox"/> _Innovative designer	<input checked="" type="checkbox"/> _Computational thinker communicator	<input checked="" type="checkbox"/> _Creative	<input type="checkbox"/> _Global collaborator	
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