7th Grade Science Roundtables Format
Wednesday, 06/20/2018

Part 1: Semester Reflection
Part 2: Mini Lesson
Part 3: Exhibition Presentation
Part 4: On Demand Questions

Roundtable Times:
Block 1: 8:50am to 10:15am
Block 2: 10:20am to 11:45am
Block 4: 11:50am to 1:15pm
Block 7: 2:00pm to 3:25pm

Do I have everything???

☐ Semester Reflection (DUE: Tuesday, 6/12)
☐ Mini-Lesson cards (typed and cut out OR written on index cards) (DUE: Thursday, 6/14)
☐ Mini-Lesson poster *you do not NEED a visual, but if you’d like to create one you can* *you will have a whiteboard at your table on the day of Roundtables*
☐ Exhibition Presentation cards (typed and cut out OR written on index cards) (DUE: Monday, 6/18)
☐ I have looked over the On Demand Questions and prepared responses

Roundtable Grading Policy

- WORK HABITS: You will be given a Work Habits grade based on the amount of effort you put in during in class Roundtable preparation. You can also receive extra credit for Work Habits by dressing up for Roundtables

- ACHIEVEMENT/ CORE: Points will be added to your overall Achievement grade for the semester based on your Roundtable performance. Expert: 5, Practitioner: 3, Apprentice: 1, Novice: 0. If you miss your presentation without an acceptable excuse, you will have 5 points taken away from your achievement grade.

- If you are late you will NOT be able to present.
Part 1: Semester Reflection (5 minutes)

*You will start your Roundtable presentation by reading your Semester Reflection. *

**Directions:** You must write a one page reflection on what you have learned this semester using the guiding points below. This must be neatly written on a piece of loose-leaf. Be sure to use proper grammar, punctuation and writing conventions. This reflection will be part of your roundtable presentation. You will receive extra credit for typing the assignment.

Your reflection must include (but is NOT limited to) the following topics:

- Describe how you’ve learned to be a student scientist this semester and explain why this is important. (See the box below.)

- Describe how you’ve exhibited a Growth Mindset. (Describe what has been the most challenging part of 7th grade science for you and how you’ve overcome that challenge.) Provide evidence.

  Example: “In the beginning of this semester, I struggled with unit tests. I actually failed the Unit 4 Test. Since then, I’ve learned how to study better and I’ve put in more time reviewing the study guides we’re given. This hard work has paid off because on the last test I scored an 83%!”

- Describe what the most interesting or important thing you’ve learned this semester is. Explain why it is so interesting or important. (see the list below of a list of topics we’ve learned about this semester)

**Topics we’ve learned about this semester:**
- States of matter
- Atoms
- Elements and the Periodic Table
- Air pollutants
- Effects of air pollution on our health and community
- Classes of vertebrates
- Feeding behaviors of animals
- Animal communication
- Symbiotic relationships
- The history of zoos and how they’ve changed over time

**Ways we’ve learned to be a student scientist:**
- Conducting research
- Making observations
- Solving problems using science
- using scientific tools (ex: microscopes, graduated cylinders, etc.)
- conducting experiments to find the answers to questions (ex: is air matter?)
- collecting and analyzing data
- using models
- much more!!!!
Part 2: Mini-Lesson (10-12 minutes)

You will be teaching your evaluator about ONE of the following topics. You MUST make index cards to help you present and remember all the necessary information. Write your name and the card number on EACH card.

Model Index Card:

Write your name on EACH card.

Write the question or prompt.

Number each card and label them (ML for Mini Lesson, EXP for experiment presentation)

Answer the question or prompt in bullet point notes. Use this as just a reminder of what you want to say. DON’T write in full sentences!

Use the ENTIRE card. Write on the front and back. Let’s save some trees 😊

Topic A: Matter

- Describe what matter, volume and mass are.

- Describe the three states of matter. Draw a diagram on the whiteboard of the three states of matter. Explain what the particles are doing for each state.

- Explain what causes matter to change states. What is condensation? What is evaporation?

- **DEMO** Describe how we concluded air has mass? Show with the cup/ cotton/ water lab how we supported the claim that air has volume? Is air matter? Why or why not?

- **BONUS**: explain what density is
Topic B: Atoms and Elements

- What is an atom? Describe the three main parts in an atom (their charge and where they are located).

- Describe what an element is (provide examples). Explain how elements are organized on the Periodic Table. **Bring your own Periodic Table to Roundtables**

- Pick an element from the periodic table and show how you find the number of protons, electrons and neutrons for a particular atom of an element.

- Explain the difference between elements, compounds and mixtures. Provide examples.

- **DEMO** Explain the difference between a physical and chemical change. Mix together baking soda and vinegar. Explain whether this is a physical change or a chemical change and why

- **BONUS:** explain what an isotope and an ion are

Topic C: Symbiotic Relationships

- Explain what the 3 different types of symbiotic relationships are.

- **DEMO** use the symbiotic cards (yellow cards) to identify examples (more than 1!) of each type of symbiotic relationship and explain why it is an example

- Explain how the bees and the flowers are an example of mutualism.

- Explain why the bees are disappearing and why we should be so concerned about this.

- **BONUS:** Explain how pollination affects nutrition
**Topic D: Vertebrates and Zoos**

- What is the difference between vertebrates and invertebrates? Give examples (at least 2) of invertebrates and explain why they’re invertebrates.

- List the 5 classes of vertebrates in order. For each class of vertebrate, list some of the important characteristics. Also, give at least 2 examples of each class of vertebrate.

- **DEMO** You’ll have to play “Name that Vertebrate” with your judge.
  - Instructions: Your judge will show you a picture of an animal on the day of Roundtables. You have to decide which type of vertebrate it is and explain how you know.

- Explain the difference between an animal behaviorist and an ethologist.

- Explain how the work of ethologists and animal behaviorists have led to how zoos have changed over time.

- **BONUS:** explain who Jane Goodall is and why she is so important

**Part 3: Exhibition Presentation (7-10 minutes)**

<table>
<thead>
<tr>
<th>The three exhibitions you can present are:</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓ Sources of CO₂ Exhibition</td>
</tr>
<tr>
<td>✓ Air Quality Feature Article Exhibition</td>
</tr>
<tr>
<td>✓ Animal Enclosure Exhibition</td>
</tr>
</tbody>
</table>

**You and your Roundtable group will decided together the exhibition each person is presenting. No TWO people in the same group can present the SAME exhibition**

Use the guiding points below to prepare your index cards for your presentation. Write your name and the card number on EACH card.

**Guiding points for Exhibition Presentation:**

- Introduce the exhibition and describe the assignment. (What did you have to do, what was the purpose, etc.) **Let your evaluator read your exhibition**

- What was the most challenging part of this exhibition? Explain.

- What did you learn from doing this exhibition? Explain.

- What did this exhibition teach you about science? Explain.
Part 4: On Demand Questions (~5 minutes)

Your evaluator will randomly ask you one of the following questions below. You should familiarize yourself with the questions and be prepared to answer them with good evidence and reasoning.

Possible Discussion Questions you may be asked:

- What is particulate matter and why is it so bad?
- Explain why the number of protons (not neutrons or electrons) is what give an atom its identity
- Are zoos ethical? Provide evidence for your claim.
- Does being an ectotherm mean your blood is really cold? Explain.
- Explain the difference between instinctive and learned behaviors.
- Chimpanzees use tools. Explain what tools they use and why this discovery was so groundbreaking.
- What are some ways we as a community can improve our air quality? Explain how these ways will help.

Be prepared to analyze a graph for your judge!