

Where We Are:

We are wrapping up our unit on Magnetism. I left the following note on Aspen last week:
As we approach mid-year, many students are out of pencils. Also, many science notebooks are falling apart. Please check in with your Monsoon and ask if they need pencils and/or a new science notebook.

Before moving on to Electricity, we will carry out ***Student-Designed Investigations***. The focus of this mini-unit is not science content. Instead, it is science process skills and practices. Here are the goals:

Science Process Skills & Practices:

Students can recognize scientifically testable questions and make plausible predictions. Students can carry out safe investigations, control variables, recognize controls, measure accurately, and record data in a table that they design themselves. Students can analyze data, graph results, draw conclusions based on evidence, and communicate these results. (All above based on Appendix H of NGSS--Nature of Science.)

These skills are more challenging than science content for most students simply because they have so little experience with practicing them.

The final product for Student-Designed Investigations will be individual graphs. Unlike most units, students are placed in assigned groups, and move at the pace of their group. Each classroom group is assigned a different problem.

Scores on Aspen:

Here is a description of the tasks you will see in Aspen for ***Magnetism***.

Self Direction:

Magnetism SD Week 1, 2, 3...: These weekly scores describe how well students did their jobs in class (followed directions, handled equipment properly, brought materials to class, remained on task) during our unit. ***Typically, we are in a good routine by now.*** Unfortunately, many Monsoons have taken a step backwards due to carelessness.

Socratic Magnetism Assessment on time and directions followed: This is due ***February 7,*** but it should have been completed at least once by January 31. This gives students the opportunity to think about mistakes for a while and see if they learn from them. Immediately taking the assessment a second time does little beyond help them memorize answers. As you know, the Socratic Assessment serves as ***one*** summative assessment for the unit.

Academic Standards:

Magnetism:

This unit had three content goals.

1. Define “magnetic field”.
2. Name and explain at least two different factors that affect a magnet’s ability to move an object.
3. Demonstrate the existence of magnetic fields.

The ***first*** and ***second*** goals required no product--students were simply interviewed on these. Students were asked to make a magnetic toy for the ***third goal***. In addition,

students had to write a paragraph explaining what the toy did to demonstrate the existence of magnetic fields. **Many created very thoughtful toys**--perhaps you have a future entrepreneur in your midst! Interestingly, **few students** had trouble creating a proper toy. **Most** could also explain how their toy proved fields exist, but **many** had trouble defining magnetic field in words. This shows the complexity of truly learning concepts, and highlights why I have moved away from **a single method** of assessing students.

Magnetism Socratic Assessment: This is the final academic task in Aspen, but will not show up until after February 7. ***If you have time it would be great for a parent to take the assessment with their child.*** There are only 10 questions, but you would get a great idea of its value.

Mr Sutherland Presentation:

Generous Monsoons raised nearly \$150 for the GSD, or Glycogen Storage Disease, fund. Three students are planning to present this money to Mr. Sutherland during a future team meeting. Mr. Sutherland reported that initial results of gene therapy on three adults who have GSD are very promising!

Family Science:

The second Family Science project of the year, ***Get Behind the Line***, is due February 14. What good reason does your child have for not at least attempting this optional STEM project?

Questions? Visit?

Let me know if you have any questions. Feel free to visit our classroom any time.