

Halfway There!:

I hope 2021 means a slow return to normalcy. It's been a long road! Hang in there!

We have passed the halfway point of the year. Remote learning has its challenges--most all of us would prefer being in-person. But it also gives students an excellent opportunity to work on **self-direction skills**. If students can thrive in **this** setting--getting to classes on time, managing their workspaces, completing assignments, participating in discussions, attending extra help when needed--in-school will be that much easier. As I tell students, it is their self-direction skills, more than anything else, that will determine if they hold or lose jobs in the future. I encourage you to look at their weekly Self Direction scores in Aspen for science (and other classes).

I talked briefly with one of the strongest students on the Aurora team this week. She admitted it has been tough to maintain her motivation since she has been home for so long. One would never see this through her school work, however. She has maintained her outstanding habits. I think as the days become brighter and warmer, and as the light at the end of the tunnel becomes more evident, we can all strive to bear down and keep working.

All 3s?:

Question: Should I expect my child to get all 3s on all tasks in science?

Answer: Simple-sounding question; not so simple answer.

For many students, it's easy to recite **definitions**. It's much harder, however, to **demonstrate** definitions. For example, this unit students learned that energy is "*the ability to move something some distance or to produce a change*". During interviews, they were then given a prop (paperclip, pencil, stapler) and asked to **give** the prop energy. Most students simply moved the prop and said it had energy because it was moving. The prop didn't move itself, though. The student moved it. This means **the student** had energy. The moving prop could move **other things**, however (air or other light-weight things).

It's not surprising that **explaining** ideas is difficult for students. Much of school has been memorizing what teachers say, and then parroting back these facts. It's one reason I've left my traditional system behind. We need to give students practice **using** definitions and ideas. We all must recognize that true, **deep understanding** takes much longer than rote memorization. In addition, there are many layers to any big idea. Students who complete more activities in a given unit tend to gain more layers to their understanding. Students who progress more slowly **could complete** more activities at home, so they, too, may deepen their knowledge base.

So, to expect **all students** to show a 3 level of understanding (demonstrates understanding consistently and independently) on **all tasks** is unrealistic. On the other hand, we should not settle for a 1 level of understanding (shows little or no understanding) on content.

Reading Science Aspen Clearly:

Remember, here's how to make science results clear on Aspen. Go to **Science**, and then click on "**assignments**" (the first science screen doesn't give you useful information). Near the upper right are two drop-down menus. One is for **trimester**. I suggest keeping trimesters on "**all**".

The other drop-down is for **standard**. SD (self direction) is the work habits (non-academic) standard. The academic standards, in the order we are working on them, are Science Process Skills, Properties of Matter, Cells & Genetics, Properties of Energy, and Forces & Motion.

Properties of Energy:

We have nearly wrapped up our Properties of Energy unit. This unit had three content goals. The **first** and **third** required no product--students were simply interviewed on these. Students were asked to make an energy transfer flow chart during the **second goal** interview. Here were the three goals:

1. *Define* energy and demonstrate *what energy is* with a variety of objects.
2. *Create* and *explain* an energy transfer flow chart.
3. *State* the Law of Conservation of Energy and *explain* what happens to a device's energy as the device stops moving.

Scores on Aspen:

Here is a description of the tasks you will see in Aspen for ***Properties of Energy (POE)***.

Self Direction (SD):

POE Week 1, 2, 3...: These weekly scores describe how well students did their jobs in class (followed directions, came to class on time with their science materials, remained on task, cameras on, participated in discussions) during our unit.

POE Socratic Assessment on time and directions followed: Each unit, this serves as one summative assessment. Many students should be doing the quizzes ***sooner*** than they are. This allows them to retake it 24 hours later to see if they learned from their mistakes. The POE final assessment is due on Thursday, February 7, but all students should have completed it earlier in the week.

Academic Standards:

Here are the four product goal scores for Properties of Energy:

1. **Interview:** *Define* energy and demonstrate *what energy is* with a variety of objects.
- 2 & 3. **Product *and* Interview:** *Create* and *explain* an energy transfer flow chart.
4. **Interview:** State the Law of Conservation of Energy ***and*** explain what happens to a device's energy as the device stops moving.

Properties of Energy Socratic Assessment: This is the final academic task in Aspen.

Next Up--Electricity:

We will be moving on to Electricity next. Here are product goals for Electricity:

1. **Interview:** Define energy and demonstrate why electricity qualifies.
2. **Interview:** Name a device that produces current electricity and name the energy this device converts to electricity.
3. **Interview:** Demonstrate how we know electric fields exist.