

Dallen Cook
Questions 6&7

Science Unit lesson 1 Reflection

The lesson started out with watching a Bill Nye video and they had to fill out a worksheet while watching the video. I think it went pretty well except that there was a lot of filler in the video. Next time I will cut the last 10 minutes. It didn't really have the information that was relevant to the lesson. The worksheet had them filling information out, but since we weren't covering it in the experiment I don't think its worth the time spent.

During the experiment there were a few behavior issues simply because there were not enough scales to go around. The students had to share. Even though I gave explicit instructions to take turns using the scales, a few groups decided to do their experiment and then pass the scale so that the last ones to use it were sitting there. This caused some downtime for the early finishers and then downtime when the later students didn't have the scale at first. This can be remedied by having a second activity to split up the downtime. Or I need to get more scales. I also got sidetracked and collected all of the scales before we did the orange part of the experiment. There was time that they were answering some conclusion questions that I used to pass the scales back out. So this was no big issue, but it was a mistake I made. Some students also had a hard time writing a number expression for how to figure out how much the cubes would weigh with a variable # of cubes. This would be a good opportunity to relate the science to the current word problems that I am teaching.

I was expecting this lesson to only take up one day but from my observations walking a seeing how far the students were I decided that this lesson should take two periods. I still have to go over the information in the science packet next time, which will still take another 10-15 minutes.

Dallen Cook
Questions 1&2

Science Unit Reflection 2

When I did my research on the context of the school. I found out that most of the students in my class work very well in groups and prefer having partners in class. Through my observations I found that the students worked best when they could collaborate in routines that they had practiced throughout the year. Mrs. Dinh had trained her student to be self-competent and knew the expectations of her class. This doesn't always work with every group of students, but this group had it down. Because of this I set up most of my science labs to be done as group work. 4 or 5 students could work on the experiment together like in my Salt and solubility lesson, matter and conservation lesson, and the density columns. This allowed the students to have the freedom to experiment at their own paces and I had the knowledge that classroom management wouldn't be a problem. If I had more time I would have liked to plan a field trip to Discovery Gateway that I just south of the school. They have an activity on chemical reactions that would be great to directly follow with my unit.

I used my student's funds of knowledge in the classroom by knowing each individual's working compatibility. For example Charlie, a student with autism needed constant refocusing. If left to himself he would daydream his day away. Because of this I had him placed in one of the seats closest to the board so I could keep an eye on him. In another instance I had a girl whose parents were just barely going through a divorce. I had a talk with her and let her know that if there was an instance that she needed to leave the class for a moment, she could. There were also 2 ELL's in my classroom and I knew that Hossein had a best friend who he loved being partnered with. For him I let him work with his friend because I knew that it made him less stressed out and he did better work. For Jiyun, whose English listening skills were quite high but her writing skills needed work. She needed help when trying to phrase her sentences. She knew the content but had a hard time getting that down on paper. Because I know this about my individual students, it helps me reach them in the instances where they need a bit more scaffolding. When I know the student's cultural, home, and school backgrounds it allows me to teach on a level that I would not be able to otherwise.

Dallen Cook
Questions 3&4

Unit reflection 3

In my unit I used my pre-assessment data to know what to teach my students. When I looked at my pre-assessment results it seemed that 90% of my students got the last 4 questions right. These questions focused on the physical aspects of matter: Density, particle formation in solids, physical change and conservation of matter. It seemed that the class already had some good background with this information. So in my lesson plans I didn't focus as much on particle shape or examples of physical changes. I did briefly cover them in my density lab and my conservation of mass lesson, but not as much because they proved to have this information. Likewise the majority of the class wasn't able to define the differences between solids, liquids, and gases so I tried to review these in most of my lessons. I also used my pre-assessment to get a look at what intelligences my class used. Some of my students did prefer to learn by reading about a topic compared to hands-on collaborative work. But most of my students preferred the latter so I tried to make most of my lessons hands-on group work. I did also use independent work to suit the needs of the logical learners in my class, such as the root beer demonstration.

While working through my lessons I took formative assessments by observing what the students were saying and by taking a look at their experiments and worksheets. In one instance I noticed that the class didn't quite understand the law of conservation of matter. We were weighing cubes to see if they weighed the same when you broke them apart. Some of the class seemed stuck with the idea that since the cubes were symmetrical they would weigh the same but it wouldn't work for other objects. Because I noticed that these conversations were happening I pulled out an orange from my lunch and had the class debate where it would weigh the same when it was broken apart. To some of the kids' satisfaction they didn't weigh

the same. This led to a fun discussion about what had happened (some of the juice and oils came away when they were breaking it apart). Through this formative assessment I was able to engage and further the knowledge of my students.

Dallen Cook
Questions 5 & 9

Unit Reflection 4

The teaching strategies that I use the most tend to change depending on what subject I'm teaching, for subjects such as math and language arts I use the smart board often. With social studies and science I more often have demonstrations or hands on activities for the kids to work on. In all of my lessons there is both independent and group-work, so the students don't only get one type of instruction. In all classes I use the smart board so that all the kids can see what we are going over.

In math I start off the lessons by bringing up the expressions chapter up on the board and I explain what we are working on and work through the first few problems as a class. For the next 5 to 10 problems I sometimes have them pull out whiteboards or have them do the work in their notebooks. They then show their work to their partners and discuss how they solved their problems. I then give them time to work on assigned problems independently or in groups depending on how hard the subject matter is. Likewise in Language Arts I work with the students on the smart board and have it trickle down to independent work or group work. If we are reading a story that day I try to change it up from read aloud, think-aloud, and independent reading.

In social studies and science it greatly varies depending on what I am teaching. A lot of the information can be taught in simulations, source documents, class discussions, drama, and having actors come to the class. I have used all of these to teach the American Revolution and some of these techniques in my unit on matter. I have found that the kids get more into whatever I'm teaching if it's more hands on. Although the more hands-on and creative the kids can be, the more classroom management it takes.

After my lesson on density I gave my students a quick quiz to help me know what information they retained. There was quite a few students who still had a hard time describing what density was beyond weather an object sinks or floats on water. This did not meet the goal of the lesson so my next step would be to try to show how density works with solid objects. I would retake out the clear cubes and again demonstrate that density describes how many particles are packed into an object. Things with more particles pack into them are denser. For these students I would go into greater depth of the $\text{mass/volume}=\text{density}$. For the activity they would have to find the volume of objects using water displacement in a graduated cylinder. Hopefully going through this process would allow the students to better connect with what is happening.

Dallen Cook

Unit Reflection 5

I calculated my student's growth in my unit by taking each student's percent from the pre-test and subtracting it from their percent on the posttest. This shows each student's percent of growth. The blank spaces are due to absences. Most of my students made massive increases. This was to be expected because most of this unit was new information. I can also use this to look back at the student's individual answers to see what the majority of them missed. I would then go back and reteach those specific points. In this specific instance my test told me that my students know some basics on the three phases of matter but they couldn't tell me more than what the textures were. This tells me that I need to go into depth for each of the phases. Nearly all of them missed the question concerning solubility.

In the future I think I would do pre and post assessments differently in that instead of having the students take the same test twice, I'd prefer having quick quizzes on the content. In this way I could make short quizzes that wouldn't take much time to inform my instruction. By having them take a "pre-test" like this it takes a lot of class time. I also pretty much know that most of the class will be getting a low score simply because it's new content. By having quick quizzes I could quickly find the students who are advanced learners and have something extra prepared for them to further their knowledge. Post assessments are nice but all they tell you is the ending point. If you plan on re-teaching the information after the test that it really was a formative assessment not a summative one.

Pre-Assessment	Post Assessment	% Of increase	
1. 3/15	14/15	73	
2. 3/15	14/15	73	
3. 4/15	13/15	60	
4. 5/15	14/15	60	
5. 4/15			
6. 4/15			
7. 4/15	14/15	67	

Assessment

Data chart

8.	7/15	14/15	47	
9.	11/15	11/15	0	
10.	11/15	15/15	27	
11.	4/15	14/15	67	
12.	7/15	9/15	13	
13.	5/15	13/15	53	
14.	6/15	13/15	46	
15.	3/15	13/15	66	
16.		14/15		
17.				
18.	9/15			
19.	0/15			
20.	4/15	14/15	67	
21.	4/15	13/15	60	
22.	4/15	12/15	54	
23.	4/15	11/15	47	
24.	6/15	13/15	40	
25.	5/15			
26.				
27.				
28.		14/15		
29.	10/15			
30.	3/15	10/15	46	