**Scott Birns Science Literacy Skills BSC 307**

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| Science Literacy Skill | Plan to Develop This Skill | Why This Skill is Important | Representative Activity |
| Collection, organization, presentation, and analysis of data | I plan on developing this skill by having my students participate in various parts of this skill throughout the semester. At the beginning of the year I would have my students do a survey of each of their classmates. One question that I would have each student ask each other is what their favorite science class is. I would then have them organize the responses and have them make a bar graph of the results. It sounds simple but it has the student practicing the skill and also it gets the students a chance to meet their classmates. The representative activity that I have chosen is the lab involving bubble gum. It’s a nice little lab that uses all of these skills and would help the student practice these skills. | This skill is important because it takes place in many areas including science. In business classes that a lot of students take the collection, organization, presentation, and analysis of data is a vital skill that the student will need. An example is if they have to collect data on the consumers that are buying the designated product. They have to find out what the consumer likes (collection), organize the information in a useful way, analysis the data and then present their findings to their class and teacher. In a science class it is important skill to have because any experiment done in class the student will need these skills to be able to complete and understand the lab. | <http://serc.carleton.edu/sp/mnstep/activities/27600.html> |
| Conduct controlled experiments test hypotheses. | I plan to develop this skill by having my students participate in a lab during each unit when applicable. At the beginning of the school year I would go over how I want labs done. I also would go over each part of the lab and stress how important it is to understand what you are testing for (hypothesis). I activity that I chose was the lab: Alcohol Tolerance in Drosophila and You. It is a nice lab where students would have to follow the experiment closely so that they get the correct results. Also the lab teaches about Alcoholism which is another good lesson kids that age should be taught about. | This skill is important because in all science classes students will be asked to conduct experiments. A student must know how to correctly follow a lab and be able to test the hypothesis. When students take advanced levels of science they will have to make up their own labs. So having prior knowledge on how a lab is supposed to run will help them a lot when they take higher levels of science courses.  11.A.4b | <http://www.accessexcellence.org/AE/AEC/AEF/1996/peters_tolerance.php> |
| Problem Solving | I plan to develop this skill by having the students participate in one activity each unit that involves problem solving. This activity could be a lab, take home assignment, a group activity, etc. I also would try and make little mistakes and see if the students could recognize them. I wouldn’t start doing this though until later in the school year. I chose the activity “The Angry Red Planet” because it is a very simple activity that could get students used to problem solving. | I think the ability to solve a problem is one of the most beneficial strengths a person can possess. Throughout a student’s life they will be faced with many challenges/problems and the ability to solve them in an intelligent manner is crucial. Problem solving is also very important in science classes as well. When a student is working on a lab they might experience complications. An example of this is if they are collecting data and the numbers that they are getting are way off from where they should be. Having the skill of problem solving the student could figure out what is going wrong and be able to fix the problem. Having student’s that can problem solve also makes a teacher’s job a little easier. The teacher wouldn’t have to solve all their problems all the time. The classroom would just run a ton smoother having students that know how to problem solve. | <http://www.accessexcellence.org/AE/mspot/arp/index.php> |