Samantha Porn

Science Literacy Assignment

BSC 307

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| Science Literacy Skill | Plan to develop that skill | Why this skill is important | Representative activity |
| Understand the structure, function, and organization of plant and animal cells | Each student will have to become very creative and create a poster of a plant or animal cell. The point of the poster project is to have the students think about the function and structure of the organelles in a cell and how they can relate it to things in their everyday life. They will need to come up with an example of each organelle, and write a brief description as to how the organelle and everyday object relate to one another. This will take the concept from abstract to concrete. | This skill is important because much of science is abstract, which provides limitations for students to really understand fundamental concepts. Cell theory states that all living things are composed of cells and cells are the basic units of structure and function in living things. Understanding the structure, function, and organization of a cell is essential to learn other concepts of science. The cell is a building block to the world of science.  This skill exemplifies goal 12.A.4b. | <http://www.docstoc.com/docs/34081422/Cell-Posters-Project> |
| Design and conduct an experiment to test hypotheses | Students will participate in an engineering challenge. This challenge will require groups of 3 or 4 students to build a bridge made of popsicle sticks. After building the bridge, the groups will then make a hypothesis of how much weight their bridge can hold. Then we will test each bridge the following class period, once they have had time to dry. | This skill is important because as scientists, we are always making and testing hypotheses, inside and outside the classroom. Developing this skill is essential to all aspects of our lives.  This skill exemplifies goals 11.A.4b, 11.A.5b, and 11.B.5c. | <http://www.docstoc.com/docs/25141181/Popsicle-Stick-Bridge-Building-Competition> |
| Collect, organize and analyze data accurately and precisely | Students will use NASA satellite data to study temperature and snow-ice coverage in the South Beaufort Sea, Alaska. The data can be used to correlate with USGS ground tracking of polar bears, and to relate this to global change, sea ice changes, and polar bear migration. The data can be used to draw conclusions surrounding any migration patterns in the region. | While this particular lesson plan I chose deals with migratory patterns of polar bears and sea ice changes, the skill of it can be assessed through multiple lesson plans. Developing this skill of collecting, organizing, and analyzing data can be used beyond the walls of a classroom. This is not just a skill needed in science; it is used in so many other aspects of life.  This skill exemplifies goal 11.A.4c. | <http://mynasadata.larc.nasa.gov/preview_lesson.php?&passid=90> |