**Science Literacy**

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| Science Literacy Skill | Plan to Develop This Skill | Why This Skill is Important | Representative Activity |
| Read scientific articles with understanding (Analysis of Data) | Assign students a weekly “Lit wits” journal article. Students will read a scientific journal article of their choice from a publication the instructor assigns. They will then write an article summary according to a rubric and answer several questions. | In order to become scientifically literate citizens, students need to be familiar with valid scientific research. They need to know what real scientific information looks like. As they make decisions on important issues, they will possess the skills necessary to investigate and understand various scientific topics. Activities that build this science literacy skill are also in accordance with ISBE standard 11.B.4g. | <http://sun.menloschool.org/~dspence/biology/articles/article_grading.htm> |
| Collection, Organization, Presentation, and analysis of data | Students will explore the scientific method using common everyday objects such as M&Ms. Students will learn how to collect their own data, make predictions, and test hypotheses. They will also learn how to present their data so that others can read their findings. As students understand the scientific method, they will be able to build on their skills throughout the year in various other lab inquiry activities. | The scientific method is one of the most commonly recognized scientific literacy skills. This activity allows students to walk through the entire scientific method process as they make their own predictions, gather their own data, and analyze their own results. An activity that involves the manipulation of common objects such as candy allows students to focus on learning basic science literacy skills. If complex materials or chemical reactions were used, then students would be distracted by trying to understand what the materials were. Activities that build this science literacy skill are also in accordance with ISBE standards 11.A.4b, 11.A.4c, and 11.A.4d. | <http://www.scienceteacherprogram.org/genscience/AMeyer05.html> |
| Asking and Exploration of Questions | Students will explore the world of science through the lens of technology and be challenged to think critically about the impact of technology on their day to day life. This representative activity touches many different literacy skills beyond asking questions. Students also work on interpreting and evaluating data, proposing new solutions, and self-reflection. | Technology becomes a greater and greater integral part of science as the years go by. This activity investigates the world of science while simultaneously building exploration skills in students. Asking questions is the basis of scientific inquiry. Most students have not reached formal operational thinking by their freshman or sophomore year of high school. This activity will begin to exercise their brains in critical thinking. It is also in accordance with ISBE standards 11.B.4b and 11.B.4f. | <http://www.readwritethink.org/classroom-resources/lesson-plans/paying-attention-technology-exploring-323.html?tab=1#tabs> |

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