

Watershed Wise D.C. (WWDC) Fellowship: A Partnership Opportunity between the DCPS and the District Department of the Environment

The following Fourth Grade Curriculum DCPS Standards may be addressed:

Life Science

4.7. Broad Concept: All organisms need energy and matter to live and grow. As a basis for understanding this concept,

Students:

4.7.1. Explain that organisms interact with one another in various ways, such as providing food, pollination, and seed dispersal.

4.7.2. Observe and recognize that some source of energy is needed for all organisms to stay alive and grow.

4.7.3. Describe how energy derived from the sun is used by green plants to produce chemical energy in the form of sugars (photosynthesis), and this energy is transferred along a food chain from producers (plants) to consumers to decomposers.

4.7.4. Observe and explain that most plants produce far more seeds than actually grow into new plants.

4.7.5. Describe the structures in plants (leaves, roots, flowers, stem, bark, wood) that are responsible for food production, support, water transport, growth, and protection.

4.7.6. Describe the many beneficial attributes of plants, including trees, in improving and sustaining an urban environment.

4.7.7. Explain how in all environments, organisms grow, die, and decay, as new organisms are produced by the older ones.

4.7.8. Recognize that there are many kinds, and vast numbers, of living things too small to see with the naked eye called *microorganisms*, but they can be easily seen with the aid of various kinds of microscopes.

4.7.9. Explain how dead plants and animals are the food source for many microorganisms.

4.7.10. Investigate the Chesapeake Bay watershed and wetlands, and describe how they support a wide variety of plant and animal life that interact with other living and nonliving things.

Earth Science

4.3. Broad Concept: Waves, wind, water, and ice shape and reshape the Earth's land surface. As a basis for understanding this concept,

Students:

4.3.1. Explain how waves, wind, water, and glacial ice shape and reshape Earth's land surface by eroding rock and soil in some areas and depositing them in other areas.

4.3.2. Explain how the surface of the Earth changes over various time scales due to processes, such as erosion and weathering, landslides, volcanic eruptions, earthquakes, and mountain building.

Scientific Thinking and Inquiry

4.1. Broad Concept: Scientific progress is made by asking relevant questions and conducting careful investigations. As a basis for understanding this concept, and to address the content in this grade, students should develop their own questions and perform investigations.

Students:

4.1.1. Recognize and describe how results of similar scientific investigations may turn out differently due to inconsistencies in methods, materials, or observations, or the limitations of the tools used.

4.1.2. Explain that clear communication is an essential part of the process of scientific inquiry because it enables scientists to inform others about their work, to expose their ideas to evaluation by other scientists, and to allow scientists to stay informed about scientific discoveries around the world.

4.1.3. Use numerical data to describe and compare objects and events.

4.1.4. Write descriptions of investigations by using observations as support for explanations.

4.1.5. Support statements with ideas and data found in print and electronic media, identify and evaluate the sources used, and expect others to do the same.

4.1.6. Identify better reasons for believing something rather than citing comments such as, "Everybody knows that," "I just know," or "Because they say," and discount such reasons when given by others.

4.1.7. Explain how scientific thinking can be distorted by strong feelings, and explain why and when it is appropriate or necessary to separate emotions from the reasoning process.