

Best Practices of Technology Integration

Title: *Photosynthesis*

Subjects: Science

Intended Grade Level(s): 6

Description:

One of our district goals for sixth grade science is “Describe the process of photosynthesis. A word like photosynthesis brings a lot of responses in an Internet or web search. In this lesson students would learn how to use the Internet to search for information on a specific topic. They would then use HyperStudio, PowerPoint, or other presentation software to create a Web like page of their own. Which could be made into a web page or a presentation for class.

Curriculum Benchmarks:

[MI.SCI.III.1.MS.3](#)

Explain how cells use food as a source of energy

[MI.SCI.III.2.MS.3](#)

Describe evidence that plants make and store food.

[MI.SCI.III.5.MS.3](#)

Describe how all organisms in an ecosystem acquire energy directly or indirectly from sunlight.

[MI.SCI.III.5.MS.5](#)

Identify some common materials that cycle through the environment.

[MI.SCI.IV.2.MS.2](#)

Describe common chemical changes in terms of properties of reactants and products.

[MI.SCI.IV.2.MS.3](#)

Distinguish between physical and chemical changes in natural and technological systems.

Instructional Technology across the Curriculum Standard(s):

- Use and transfer technological knowledge and skills for life roles.

- Use technologies to retrieve, organize, manipulate, evaluate, and communicate information.

- Apply appropriate technologies to critical thinking, creative expression, and decision-making skills.

- Employ a systematic approach to technological solutions by using resources and processes to create, maintain and improve products, systems, and environments.

- Demonstrate the use of system commands or a computer program to control a technological system.

Demonstrate such word processing skills as entering, storing, editing, formatting and revising text.

Multimedia used as a tool for organizing, arranging and storing information by creating buttons, fields, cards and stacks.

Detailed Timeline:

8-10 class periods

Material/Hardware/Software:

Students would need access to a computer lab with Internet access. (Search could be done as a group in a one computer classroom.)

Search engine such as Yahoo®.

Assignment sheet and rubric to show what is expected in presentation.

Presentation software

Technology Resources:

<http://www.wpt.org/getreal!/300/popout/rain.htm>

<http://www.ucmp.berkeley.edu/glossary/gloss3/photosyn/index.html>

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<http://mss.scbe.on.ca/dsphotos.htm>

Prerequisite Student Skills:

Students would need a working knowledge of a multimedia program like Power Point or HyperStudio.

Activities/Procedures:

1. A whole-group lesson on Search Engines.
2. A search of the Internet on “photosynthesis”.
3. Instruction in creating a stack for presentation. (Could be made into a web page)

Assessment/Evaluation:

Rubric designed for the presentation. This can be in the form of an assignment checklist which indicates everything that must be present. For example if you want them to show the formula for photosynthesis or a diagram or a definition or a link to another card. These would be listed on the assignment sheet with their point value.

Management:

Check your district guidelines for use of the Internet by students.

Submitted By:

Name: Roycene Fish

School District: Parchment School District

School: Middle School