

Photosynthesis

Cross Curriculum Application

**Cross Curriculum	Family Consumer Science	6.12.1-Demonstrate measuring techniques, measures dry and liquid supplies; 1.4.13-Describes/explains scientific principles related to reactions; 1.4.2-Analyze environmental issues;
	Agriculture	Aquaculture:2.6.1-Contrast circulatory/respiratory systems; 4.11.1-Use a dissolved oxygen meter to determine DO levels; 4.12.2-Determine DO levels in various temperatures; 1.4.23-Use equipment/techniques to measure dissolved oxygen; 5.4.1-Observe aquaculture facilities for signs of oxygen depletion; 5.4.2-Determine conditions that contribute to current oxygen levels in a sample; 5.5-List/explain causes of oxygen depletion; 5.12.1-Use a DO meter; Plants in Agriculture: 4.3-label parts of plant and discuss functions; Greenhouse Management: 5.2.1-Demonstrate through experimentation how light or dark affects seed germination; 8.3.1-Adjust lighting conditions to promote plant growth; Forestry: 2.2-Discuss the parts/functions of a tree; 2.4.1-Write the photosynthesis equation/formula; 2.5.1-Label the parts of a complete flower; 3.5-Label parts of a leaf; Biological Plant Sciences: 3.3.1-Conduct a simple experiment following approved methods; 11.4.1-Observe the effect of different herbicides on plants; Plant Science: 7.4-Distinguish between photosynthesis and respiration; 7.4.1-Explain the chemical processes that are involved in photosynthesis and how they sustain the plant; 7.4.2-Write the chemical equation for photosynthesis; 4.4.1-Prepare report on function of leaves; 4.7.1-Diagram chemical equation for photosynthesis.
	PE	HRF.2.PEL.1 and HRF.2.PEL.2 - Cardio respiratory fitness and production/processes/functions of oxygen in the body
	Media	Students can research real world water issues in newspapers and magazines. The Futures Channel - Water Supply video
	History	Arkansas History (7-8) G.1.AH.7-8.5 Examine the economic effect of Arkansas' natural resources (forestry products).
		Arkansas History (9-12) G.1.AH.9-12.5 Examine the effect of Arkansas' natural resources (forestry products).
		Contemporary U.S. History E.7.CH.1 Examine the influence of the following on the environmental movement: - The Novel <i>Silent Spring</i> , -Environmental Protection Agency, -Green Peace, and Earth Day; E.7.CH.2 Investigate the consequences of environmental disasters; E.7.CH.3 Discuss contemporary environmental issues.
		World Geography SG 1.WG.5 Evaluate reasons for choosing a specific technology to analyze geographic problems (deforestation); PS.3.WG.1 Features of the hydrosphere and biosphere.

