



What is Algae?

This Experiment is Provided as a Free Service to Home Educators

By

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The Backyard Scientist

The following experiment from the Backyard Scientist was developed expressly for use in newsletters serving home educators. This experiment is NOT contained in the award-winning *Backyard Scientist* books and science kits. As in the *Backyard Scientist* books, it is designed to be simple, fun, and of course to teach an important scientific concept.

Gather the following supplies:

A pencil and paper to write on, 1 clear glass jar, enough pond water or gutter water or water from an aquarium that is in need of cleaning, 1 pond plant (you can get these at a pet store).

Start Experimenting:

1. Take the water you collected and fill the jar 3/4 full.
2. Place the pond plant into the water in the jar.
3. Place the jar in a window or other area where direct sun light will fall on the jar.
4. Leave the jar in the sun light for at least two weeks.
5. Observe the jar each day and record your observations.

Can you answer the following questions from your observations?

1. What color did the water become?
2. What caused the water to change color?
3. What do you think is growing in the water?

Backyard Scientist Solution to Experiment

Did you notice that the water became increasingly more green? The water turned green because algae were growing in it. There are over 30,000 different kinds of algae. Many are green to the abundance of green pigment called chlorophyll. Alga makes its own food through a process called photosynthesis. The necessary requirements for this process are

carbon dioxide, water, light and chlorophyll. The algae grow in a sunny, watery environment producing more and more cells containing the green chlorophyll. As the number of cells increases, the water becomes greener in color. A few algae are brown and some are red. These give the water in the Red Sea its reddish color. Algae can choke the life out of lakes and other bodies of water by not allowing plants that give off oxygen to grow. Eventually this will kill off fish.

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About the author. Jane Hoffman, the Backyard Scientist, is the internationally known author of the award-winning *Backyard Scientist* hands on science books and science kits. The nine science books and three kits will excite, motivate and instruct any student. Also available from the Backyard Scientist is the "Parent Guide to Teaching Science." This work covering grades K –12 helps parents insure they are teaching the science subjects and materials their students should be learning by grade level. Her newest book, *A Science Wonderland for the Very Young* targets children ages 2-7 years. In addition to writing and developing these exciting materials, Jane is a sought-after speaker at Home School and other educational conferences nationwide where she makes science come alive. Everyone leaves her sessions better informed as well as motivated and enthused to apply the concepts they learned. Hoffman's teacher inservice workshops for teachers are rated the best available by teachers and administrators. She has been serving the homeschool and educational markets with quality materials nearly 25 years. For a free brochure, send a self-addressed, stamped (\$.60) envelope to: Backyard Scientist, PO Box 16966, Irvine, CA 92623 or visit her on the Worldwide Web at: www.backyardscientist.com