

Attention Elementary School Teachers!!!

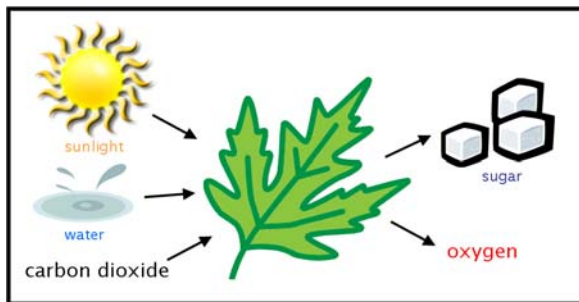
The DNA EpiCenter announces a
Professional Development opportunity!

Tuesday, March 3 and Thursday, March 5: 4:00pm - 7:00pm
Tuesday, May 5 and Thursday, May 7: 4:00pm - 7:00pm

OR

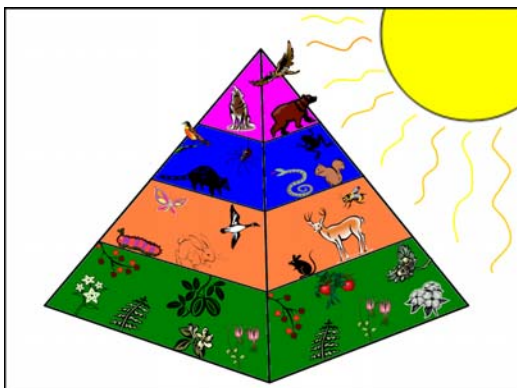
CALL TO SCHEDULE A DATE

Grant money is available to cover all costs.
Please call for more information.



Your students will...

➔ Discover the location of photosynthesis within plants, perform energy transfer with chlorophyll, and investigate the products of photosynthesis through hands-on laboratory exploration



➔ Illustrate the interconnections between plants and animals in a food web using a Great Barrier Reef computer program

Program activities have been mapped to the
Connecticut Core Science Curriculum Framework 4.2.

Matter and Energy in Ecosystems – How do matter and energy flow through ecosystems?

- 4.2 – All organisms depend on the living and nonliving features of the environment for survival.
- When the environment changes, some organisms survive and reproduce, and others die or move to new locations.

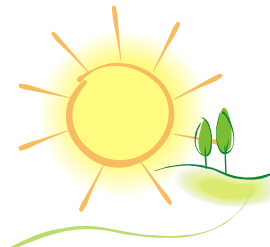
For questions about the workshop or to sign up, please contact
Staff Scientist & Program Manager, Jessica Rose, at (860) 442-0391 or jrose@dnaepicenter.org.

33 Gallows Lane • New London, CT • 06320 • www.dnaepicenter.org



School Group Programs

For Grades 3 – 5 at the DNA EpiCenter (DNAE)



Explore the Reef

The *Blue Planet Challenge* computer game introduces students to feeding relationships among the diverse inhabitants of the Great Barrier Reef. Students can build food chains and a reef food web at their own pace using laptops in the DNA EpiCenter Theater Classroom.

DNAE Classroom: 2.5 hrs. DNAE Laboratory: 0 hrs. Total: 2.5 hrs. Program Cost: \$220

Energizing Spinach

Students explore how plants absorb the sun's energy during photosynthesis. Chloroplasts are removed from spinach leaves and isolated using scientific techniques and equipment. A light reaction demonstrates the importance and role of sunlight during photosynthesis.

DNAE Classroom: 0 hrs. DNAE Laboratory: 2 hrs. Total: 2 hrs. Program Cost: \$200

Super Starch Production

Two lab experiments highlight the production of starch during photosynthesis. *The Great Starch Exploration* allows students to define the difference between producers and consumers by testing common substances for the presence of starch. *The Search for Starch in the Dark* uncovers how plants react to the absence of sunlight.

DNAE Classroom: 0 hrs DNAE Laboratory: 1.5 hrs. Total: 1.5 hrs. Program Cost: \$185

Producers in Photosynthesis

Energizing Spinach illustrates what is necessary for the photosynthesis reaction to take place. *The Great Starch Exploration* allows students to see what plants create in the photosynthesis reaction, highlighting the difference between producers and consumers.

DNAE Classroom: 0 hrs DNAE Laboratory: 2.5 hrs. Total: 2.5 hrs. Program Cost: \$270



Explore the Reef Enhanced

Before completing *Explore the Reef*, students are guided through effective internet research. The *National Geographic* website is used to identify information about marine animals and then students build the photosynthesis reaction on a *Virtual Photosynthesis* website.

DNAE Classroom: 4 hrs. DNAE Laboratory: 0 hrs. Total: 4 hrs. Program Cost: \$350

Photosynthesis within the Reef

A package featuring *Explore the Reef*, *Energizing Spinach*, and *The Great Starch Exploration*. This combination gives students a complete picture of energy movement through an ecosystem.

DNAE Classroom: 2.5 hrs. DNAE Laboratory: 2.5 hrs. Total: 5 hrs. Program Cost: \$425

Follow the Energy Flow

This comprehensive package includes *Explore the Reef*, as well as *Energizing Spinach*, and *Super Starch Production* lab experiments.

DNAE Classroom: 2.5 hrs. DNAE Laboratory: 3.5 hrs. Total: 6 hrs. Program Cost: \$575

Producers in Photosynthesis Enhanced

The combination of *Energizing Spinach* and *Super Starch Production* provides students with a full laboratory investigation of both sides of the photosynthesis reaction.

DNAE Classroom: 0 hrs. DNAE Laboratory: 3.5 hrs. Total: 3.5 hrs. Program Cost: \$360

Elodea is a Producer in Photosynthesis

Before completing *Producers in Photosynthesis*, watch the photosynthesis reaction using the water plant *Elodea*. Students monitor *Elodea* oxygen production to "see" photosynthesis occur.

DNAE Classroom: 0 hrs. DNAE Laboratory: 3.5 hrs. Total: 3.5 hrs. Program Cost: \$360

Maximum of 24 students per program.

For questions about or to book programs, please contact
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