

SOLAR ENERGY MODULE

On the Welcome page, click Preview under the grades 3–6 flag to see a brief overview of the 3–6 site.

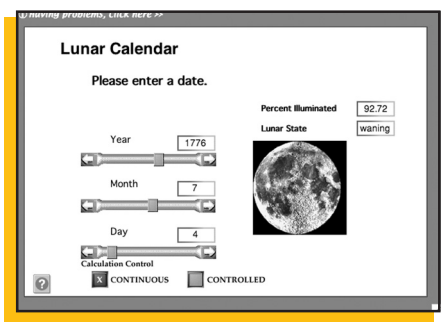
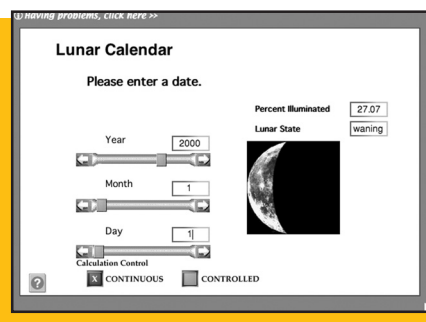
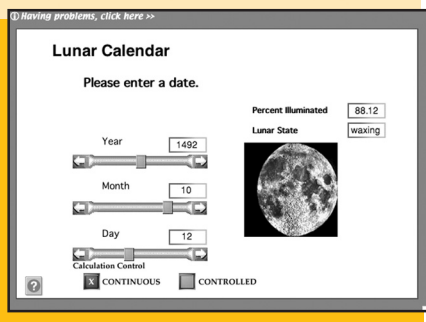
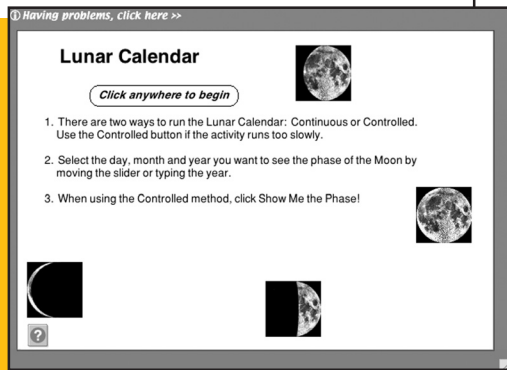
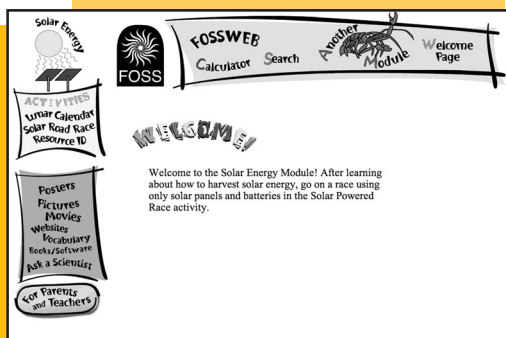
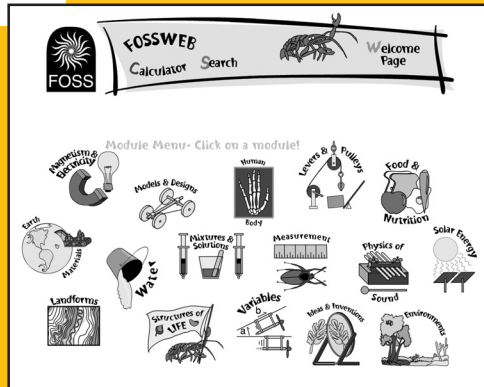
Click the grades 3–6 icon to get a menu that links to each of the 3–6 modules. There you can choose Solar Energy and travel to a wealth of information and activities specific to that module for students, parents, and teachers. The section for students has interactive activities, project posters, pictures, movies, websites, a vocabulary list, a list of books and software, and an “Ask a Scientist” section. Parents and teachers can go to a module summary, a link to home/school connections, resources, and tips and tricks for using FOSS in the classroom.

If possible, introduce FOSSweb to students using a computer connected to a large monitor or digital projector. After a group introduction, move students to the computer lab or to computer stations in your classroom. Students in grades 3–6 need to have a focus when they begin exploring FOSSweb on their own or in small groups. Consider using some of the following questions and ideas to get them started. You can allow more free exploration once students have learned how to use FOSSweb and have completed some introductory assignments.

In Solar Energy, you’ll find three activities: Lunar Calendar, Solar Road Race, and Resource ID. You can introduce students to the Lunar Calendar and Resource ID at any time during the module.

In Lunar Calendar, students can view a Moon phase for a specific date by entering year, month, and day. In Resource ID, students are presented with a variety of natural resources asked to and sort them into categories of renewable, nonrenewable, and inexhaustible by dragging and dropping the resource icons.

You can introduce the Solar Road Race after students have completed Investigation 4, *Solar Houses*, and have read “Racing with the Sun” on page 27 of *FOSS Science Stories: Solar Energy*. In Solar



Road Race, students use solar power to compete in a cross-country road race. You might ask,

- *How did we use solar energy in our investigations?*
- *What are some other ways people could use solar energy for power?*

Review the introductory screen with the class. Click anywhere on the screen to move to the activity. Review the first leg of the race. Have students record the information about conditions and equipment, including the formulas for number of solar panels. Move to the next window by clicking anywhere on the screen. Ask for suggestions about how many solar panels to add to the car. Move the panels by clicking and holding the panel while moving it to the car. Click Go when you are ready to start the race. Observe and record the results of this leg. Show students the ? button at the top right. Have students move to a computer to try the game on their own. Ask them to record the results of each race leg to share with the class during later discussion.

In Posters, students can view summaries of investigations or studies created by students as part of the end-of-module project. Students can also submit their own project posters to share with other FOSS learners.

Pictures include images of various uses of solar and other alternative energy resources (e.g. heating buildings and solar cars), as well as images of objects in the Solar System. Students may want to do further research starting with these pictures as part of their end-of-module project.

Movies include videos about weather and how photovoltaic cells are made.

Websites include links to sites that can extend student experience with the **Solar Energy Module**. The links may inspire some new projects and investigations involving solar energy and the Solar System.

In Vocabulary, students will find a glossary of words used in the **Solar Energy** investigations and in *FOSS Science Stories: Solar Energy*. Downloadable pdf files of the vocabulary list and glossary are available here.

Books/Software includes an annotated list of books, videos, and software recommended for the **Solar Energy Module**.

In Ask a Scientist, students can review questions about solar energy that have been submitted by other students and ask appropriate questions of their own. Adult guidance in submitting questions is highly recommended.

NOTE: Before clicking “Go” on subsequent legs, make sure you click somewhere else in the window first to get information about the particular leg.

