# Sun and Me Posters - 1

**Student Objective**
The student:
- will be able to identify major benefits of solar energy
- will work cooperatively to create a poster that communicates information.

**Key Words:**
energy
solar energy

**Time:**
½ - 1 hour

**Materials:**
- posterboard or large sheets of paper
- various art materials, e.g. paints, markers, and crayons.

**Background Information**

Without the heat and light of the sun, life as we know it could not exist on the earth. Because of **photosynthesis**, the sun is the ultimate source of energy stored both in the fossil fuels that we burn and the food that we eat. Heat from the sun sets up convection currents, and thus it the source of the energy of **wind**. Falling **rain** also owes its energy to the sun because of the relation of solar radiation to the water cycle, and of course, without rain and sunshine we wouldn't have rainbows! These forms of solar energy are so much a part of our everyday experience that we usually don't think of them when we talk about solar energy.

Mankind has been able to harness solar energy to supply our power needs through **solar thermal**, using the energy of the sun to heat something, and **photovoltaics**, turning the energy of the sun directly into electricity. Solar energy is an inexhaustible source of energy that we are just beginning to actively use to supply our energy needs.

**Procedure**
1. Divide the class into groups of three or four students.
2. Explain to the class that they will be creating posters to depict the benefits we get from the sun, and then they will share them with the class.
3. Assign a benefit of solar energy to each group. If possible, incorporate things that they said they wanted to learn more about in the K-W-L exercise. Some examples of benefits of solar energy are:
   - grow plants
   - warmth
   - rainbows
   - daylight

- shadows, sundials
- clouds, rain, water cycle
- evaporation, drying clothes

4. Assist the groups as necessary while they are working on their posters.
5. When the posters are completed, have each group present their poster to the class and explain what information they are depicting.
6. Hang the posters in the classroom until the end of the *Solar Matters* unit.

**Further Activities**

1. Hang the posters on a hallway bulletin board or somewhere that other classes may view them. When Sun and Me Posters 2 is completed at the end of the Solar Matters unit, those posters can either replace these, or be added to the display.

**Related Reading**

- ***Sun Up, Sun Down*** by Gail Gibbons (Harcourt, 1987)
  Sun Up, Sun Down is a look at the sun's effect on the daily life of a little girl from the sun's first beam through her window in the morning to the dark of night.
- ***Wake Up, Sun*** by David L. Harrison (Random House, 1986)
  This beginning reader chronicles the distress of the farm animals when they wake up in the middle of the night to find out that the sun is gone.
- ***Arrow to the Sun: A Pueblo Indian Tale***, Gerald McDermott, Illustrator (Penguin USA, 1977)
  This adaptation of the Pueblo Indian myth explains how the spirit of the Lord of the Sun is brought to the world of men. In this tale, a boy searching for his father is made into an arrow and shot to the sun. When he meets the Lord of the Sun, he is asked to prove himself. The boy uses his bravery to pass the tests and bring the Sun's spirit to the world of man. As a result, the people celebrate his return with the Dance of Life.
- ***The Sun Is My Favorite Star*** by Frank Asch (Harcourt, 2000)
  The Sun is My Favorite Star is especially appealing to the youngest listeners with its whimsical text and bright watercolor drawings. The sun comes in the window, wakes up a little boy, and continues to play a central role throughout his day as it plays hide-and-seek from behind the clouds, peeks through a hole in a the fence and casts shadows on the wall.

**EnergyWhiz**

Submit photos of your classroom posters to the EnergyWhiz website, **http://energywhiz.com/** and receive recognition for your class and school.

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|---|---|---|---|---|---|---|---|
| **Energy** | **Standard 1** | **SC.B.1.1-** | **X** | **X** | | **X** | |
| | **Standard 2** | **SC.B.2.1-** | **X** | | | | |
| **Earth and Space** | **Standard 1** | **SC.E.1.1-** | | **X** | | | |
| | **Standard 2** | **SC.E.2.1-** | | | | | |
| **Art Standards:** | **VA.A.1.1.1, VA.B.1.1.4** | | | | | | |

**Benchmark SC.B.1.1.1** - The student knows that the Sun supplies heat and light energy to Earth.
**Grade Level Expectations**
The student:
*Kindergarten*
- knows the effects of sun and shade on the same object

*First*
- knows that heat from the Sun has varying effects depending on the surface it strikes.

**Benchmark SC.B.1.1.2** - The student knows that light can pass through some objects and not others.
**Grade Level Expectations**
The student:
*Kindergarten*
- knows that light can pass through some objects, but cannot pass through other objects.

**Benchmark SC.B.1.1.4** - The student knows that heat can be produced in many ways.
**Grade Level Expectations**
The student:
*Second*
- knows different heat sources.

**Benchmark SC.B.2.1.1** - The student recognizes systems of matter and energy.
**Grade Level Expectations**
The student:
*Second*
- understands ways energy and matter interact.

**Benchmark SC.E.1.1.2** - The student knows that the appearance of sunrise and sunset is due to the rotation of Earth every 24 hours.

**Grade Level Expectations**

The student:

*Kindergarten*

- knows that the position of the Sun in the sky appears to change during the day

*First*

- knows that night and day are caused by the rotation of the Earth.

**Benchmark VA.A.1.1.1** - The student uses two-dimensional and three-dimensional media, techniques, tools, and processes to depict works of art from personal experiences, observation, or imagination.

**Benchmark VA.B.1.1.4** - The student uses the elements of art and the principles of design to effectively communicate ideas.

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**energy -** the ability to do work. Also, a source of usable power**.**

**solar energy** - energy derived from the sun