

Learning Objectives

- 1) Understand the relationship between the sun and Earth.
- 2) Know that the sun's energy supplies heat and light that is used by all living things on Earth.
- 3) Understand that Earth and other planets revolve around the sun.
- 4) Know the composition of the sun and other stars.
- 5) See how the sun and stars change position in the sky.

Suggested Activities

- 1) Human Revolution. Choose one student to be the sun, one the moon and one the earth. Have them revolve around as the real objects do in space. Then divide class into groups of three and practice the revolutions.
- 2) Constellations. For homework ask each student to choose a constellation and draw a picture of it on black construction paper. Each star might be colored yellow and the character in white.
- 3) Using Direction. Mark in the classroom North, South, East and West. (You might use a compass with them to find their more precise locations.) Practice pointing to or facing the various directions. Then refer to these directions during the day as you give students directions for finding things or moving.

Test

True/False and Multiple Choice

- 1) Sunspots are cooler than the other areas of the sun. ___T ___F
- 2) Larger objects have more gravitational pull than smaller objects. ___T ___F

- 3) Our sun is the brightest star in the sky because it is the biggest star.
___T ___F
- 4) Because of the earth's movement, we see different constellations at different times of the year.
___T ___F
- 5) If we didn't have the sun, we could just turn on big lights and go right on living as usual.
___T ___F
- 6) A person who studies stars and the universe is called
a) doctor b) an astronomer
c) a star gazer d) an astronaut
- 7) The moon revolves around the _____.
a) sun and the stars b) sun only
c) earth and the sun d) earth only
- 8) To rotate means _____.
a) to make a circle around another object
b) to jump up and down
c) to spin
d) to wiggle in place
- 9) Another name for a solar flare is _____.
a) corona b) Aurora borealis
c) galaxy d) solar storm
- 10) Through photosynthesis, plants turn the energy of the sun into _____.
a) food energy
b) electric energy
c) water
d) animals

ANSWERS:

1.T, 2.T, 3.F, 4.T, 5.F, 6.B, 7.C, 8.C, 9.D, 10.A



Vocabulary

Astronomer – a scientist who studies objects in space

Atmosphere – the layer of gases around Earth that help trap heat from the sun.

Aurora borealis – also called northern lights, is glowing gases around Earth caused by solar flares.

Axis – an imaginary line through the center of a sphere.

Constellation – patterns of stars in the sky, which people through the ages have seen as pictures.

Corona – the fine, reddish pink gases that surround the sun. From the Spanish word meaning crown.

Energy – what makes things move, heat up or change in other ways.

Galaxy – a large collection of stars that revolve around a center.

Gravity – the force that makes small objects move toward larger objects.

North Star – also called Polaris – is a star seen in the Northern Hemisphere which does not appear to move and stays directly over the North Pole. It is used to establish directions for travel.

Prominence – fiery ribbons and loops of gases that rise from the surface of the sun and move into its corona.

Revolve – moving in a circle around another object.

Rotate – to spin.

Solar – a word referring to the sun.

Solar flares – also called solar storms, are bright, extra hot spots on the sun caused by exploding gases.

Star – a large, hot ball of gases that give off energy and makes its own light.

Sunspots – the dark spots on the sun's surface, which are cooler than the brighter areas of the sun.

Telescope – a tool used by scientists that makes things far away appear closer, clearer and bigger.