

helios

[HAY li oss] sun

Helios - sun god; also called Apollo or Phaethon

heliotrope - (tropos - turn) - plant which turns toward the sun

helium - light gas used in balloons

perihelion - (peri - around, near) - closest point to the sun in earth's orbit

aphelion - (apo - away from) - furthest point from the sun in earth's orbit

helioscope - (skopeo - look) - telescope for looking at the sun

heliometer - (metron - measure) - instrument for measuring the diameter of the sun

Teaching Notes:

Don't confuse helios - sun, with helix which means "spiral" and which is found in "helicopter" and "double helix" (the shape of the DNA molecule). Heliotrope is an old-fashioned plant grown for its sweet fragrance. It turns to face the sun (as do most flowers). It grows to four feet high with rich dark leaves and violet to blue-purple flowers. Maybe the children could grow some heliotrope seeds! Helianthus mustn't be left out. It is the good old farmyard sunflower, grown as much for its seeds as for its large yellow blossoms. Helianthus or sunflowers could be started from seed in class and set out in gardens in the spring. Maybe someone could do some research on the nutritional value of sunflower seeds too! Perihelion and aphelion are two astronomical terms which relate to our own solar system and are useful for children to know. The orbit of the earth around the sun is an ellipse, not a circle. Moreover, the sun is not exactly at the center of the ellipse, so in January the earth is closer to the sun (perihelion) than it is in July (aphelion). A diagram on the board would help to make this clear.

Extra Words:

Heliotherapy (therapeia - healing) - sun baths for health.
Heliocentric (kentros - center) - with the sun at the center. (Our solar system is heliocentric.)
Heliograph (graph - write, draw) - instrument for photographing the sun.



SOL

[SŌL] sun

solar - pertaining to the sun

solar system - the sun with the objects which revolve around it

solarium - a sun dial; a glass-enclosed sun room

solaster - (astron - star) - a star fish with more than five rays;
a sun-star fish

parasol - (Italian - parare - to ward off) - a light portable
sunshade

solstice - (sisto, statum - set, cause to stand) - stopping or
standing still of the sun

“Old Sol” - folk name for the sun

Teaching Notes:

Copernicus and Galileo led the world to realize that we live in a solar system in which the sun is at the center and the planets and their satellites, the asteroids, comets and meteors all revolve around the sun. Before these two far-seeing gentlemen, people believed that the earth was at the center and the sun and moon moved around it! A sentence will help children remember the planets in order of their distance from the sun: Matilda (Mercury) visits (Venus) every (Earth) Monday (Mars); just (Jupiter) stays (Saturn) until (Uranus) noon (Neptune), period (Pluto)!

A solarium was a sun dial in ancient times, but we just call them sundials now. When we speak of a solarium, we mean a room with lots of windows to let in the sunlight.

A discussion of the summer and winter solstices would be fascinating for the children, particularly if they can see the points on the globe, north and south, where the direct perpendicular rays of the sun actually strike the earth. Because of the incline of the earth's axis, the sun shines straight down only as far north as the Tropic of Cancer on June 22, the summer solstice. On that day the sun stops moving north and begins moving south to the Tropic of Capricorn which it reaches by December 22, the winter solstice. Primitive cultures such as the Druids at Stonehenge attached great significance to these dates.

luna

[LOO nah] moon

lunar - of or pertaining to the moon

lunatic - mad; affected by the moon

lunacy - madness caused by the moon; "moonstruck"

clair de lune - (French) - moonlight

lunambulist - (ambulo, ambulatum - walk) - one whose sleep walking is supposedly caused by the moon

lunarium - instrument showing the phases and motions of the moon

interlunar - (inter - between) - time between old and new moon when the moon is invisible

lunation - $29\frac{1}{2}$ days - a lunar month or the time from one new moon to the next

Teaching Notes:

The moon has been an object of wonder all through the history of the world. People who believe in astrology have long thought the stars influenced their lives. But the moon has usually been thought to bring on a kind of madness, so we have lunacy and lunatic and lunambulist all meaning "moonstruck" in some way. A popular movie in recent years, "MOONSTRUCK", shows that this superstition still exists.

The words "lunar module" brought this Latin derivative into everyone's day-to-day conversation after July 20, 1969, when astronaut Neil Armstrong first set foot on the moon.

Claude Debussy (1862-1918), a French composer who was influenced by the impressionist painters of his day, wrote a composition for piano, Clair de Lune, in which he tried to express how one feels on a moonlit night. Ludwig von Beethoven tried his hand at expressing the same mood with his Moonlight Sonata. Perhaps you could play recordings of these two musical compositions for the children while they draw or write the impressions which come to them as they listen.

dia

[di AH] through, between, across

diabolical - (bole - shot, blow) - shot through, possessed (by a devil)

diadem - (desmos - bond) - bound across the forehead, a wreath or crown

diagnosis - (gnosis - knowledge) - thorough knowledge

diagonal - (gony - knee) - line between two non-adjacent corners in a figure of four or more sides

diagram - (graph - write, draw) - a cross-section drawing

diameter - (metron - measure) - measure across

diamond - (a - not + damas - tame) - hardest substance

diacritical - (krinein - separate) - marks to separate long and short vowel sounds

Teaching Notes:

Diabolical is related to Spanish “diablo” and French “diable”, both meaning “devil”. It means possessed or shot through by a devil or evil spirit. Cupid shot arrows so people would be possessed by love, but not diabolical. A diadem is usually a sparkling crown, but since it is really something bound across (or around) the head, it could also be a runner’s sweatband or the wreath he wins in a race. Diagonal - It’s fascinating how many words the Greeks made by observing their own bodies. The four angles in a square are thought of as its “knees”. (Some LEG, huh?) A diamond is the hardest and clearest stone ever found. The ancients had trouble cutting through, shaping (or taming) the ones they found, so they called them “not tamable all the way through”. Diacritical marks are those which help us to distinguish between long and short vowel sounds in words we want to pronounce. A “macron” shows the long “ū” in cube and a “breve” shows the short “ū” in cub.

Extra Words:

Diaphanous (phanein - show) means to show through, usually said of a fabric so delicate you can see through it. In Egypt where it is hot, ancient paintings show people wearing diaphanous (see through, or let-the-breezes-blow-through) clothes. Today, nylon stockings are diaphanous.

trans

[TRAHNS] across, over, through

transport - (porto, portatum - carry) - carry across

transaction - (ago, actum - do, drive) - trade, exchange

transcript - (scribo, scriptum - write) - speech put into writing

transfer - (fero, latum - carry) - carry across

transform - (formo, formatum - form, shape) - change over to a different form

transplant - (planta - sprout, plant) - move a plant

transparent - (pareo - appear) - appear or be seen through

Teaching Notes:

Trans is another Latin word which is used both as a preposition and as a prefix. In English it is always a prefix. Transaction is a word for a great many actions which involve exchanges between people, companies, countries, etc. Money may be involved, or it may not. But a bargain, an agreement, an exchange of some sort is implied in the word. A transcript is the taking down in writing what someone has spoken. There are court transcripts of trial proceedings. Lots of TV stations sell transcripts of their programs. Sometimes an audio recording is called a transcription.

Extra Words:

Transcend (scando, scansum - climb) - Climb over, exceed, climb beyond. Knowing the scando part of this word explains and helps one remember the sc spelling in transcend. In English the "c" sounds like /s/ because it is followed by "e", but in Latin, it is always pronounced with its hard /k/ sound. Transcontinental (con - together + teneo - hold) - across the held-together land. The Roman word contineo was made of these two parts. We speak of transcontinental railroad and airplane rides. Long trips!