

God's Design for Heaven & Earth Copywork

Our Planet Earth

Unit 1, Lesson 2

Geology is the study of the planet earth.

Unit 1, Lesson 5

During the Ice Age, nearly 30 percent of the land surface was covered by ice. Today, only 10 percent of the earth's surface is covered by ice.

Unit 1, Lesson 6

A glacier is a huge sheet or river of moving ice.

Unit 2, Lesson 8

The earth is composed of three main layers: the crust, the mantle, and the core.

Unit 2, Lesson 9

There are three kinds of rocks: igneous, sedimentary, and metamorphic.

Rocks are a combination of one or more minerals and organic materials.

Unit 2, Lesson 10

Igneous comes from the Latin word "ignis" for "fire."

Igneous rocks are formed when molten or melted rock cools and hardens into new rock.

Unit 2, Lesson 11

Sedimentary comes from the Latin word “sedo” which means “to settle down.”

Sedimentary rocks are formed as layers of sediment are bonded together by natural cement as they settle out of a water solution.

Unit 2, Lesson 12

Fossils are evidence of plants and animals from a previous time that are preserved in the rock.

Unit 2, Lesson 13

Fossil fuels refer to coal, oil, and natural gas formed from the remains of plants and animals that were buried in the past.

Unit 2, Lesson 14

The word “metamorphic” comes from the Greek word meaning “to change form.”

Metamorphic rock is igneous or sedimentary rock that has changed into a different form due to heat and pressure.

Unit 2, Lesson 15

The rock, granite, is comprised of these three minerals: quartz, mica and feldspar.

Unit 2, Lesson 16

Geologists have devised a series of tests to help determine what mineral a sample contains.

Unit 2, Lesson 17

Four scarce and valuable minerals are: gold, silver, copper, and diamonds. Salt is a very useful mineral.

Unit 2, Lesson 18

A gem is a stone that can be cut or polished to reflect light.

Unit 3, Lesson 19

Plate tectonics is the theory that the crust is made up of several large floating plates.

Unit 3, Lesson 20

A group of mountains is called a mountain range.

Unit 3, Lesson 21

Most mountains are classified as either depositional, erosional, or fold and fault.

Unit 3, Lesson 22

An earthquake results when two plates of the earth's crust push against each other until one of the plates slips.

Unit 3, Lesson 23

The word "seismograph" is formed from two Greek roots: "seismos" (shock) and "graph" (write).

Scientists use a seismograph, a special instrument, to detect earthquakes.

Unit 3, Lesson 24

The word "volcano" comes from the name of the Roman god of fire – "Vulcan."

Volcanoes can erupt very suddenly and violently, or they can gently pour out their contents relatively quietly.

Unit 3, Lesson 25

Volcanoes form three different kinds of mountains when they send out lava, ash and cinders: shield volcanoes, cinder cones, and composite volcanoes.

Unit 4, Lesson 27

A geyser is an opening in the ground where hot water and steam shoots out.

Unit 4, Lesson 28

Weathering, or erosion, is the natural process of wearing down and breaking apart rocks.

Unit 4, Lesson 29

Creep, landslides, and avalanches are all types of mass wasting.

Unit 4, Lesson 30

Running water, or stream erosion, is the most powerful eroding force in nature.

Unit 4, Lesson 31

Soil is made up of bits of sand, clay silt, and dead plants and animals.

Unit 4, Lesson 33

Stalactites hold “tightly” to the ceiling while stalagmites “might” reach the ceiling.

Our Weather & Water

Unit 1, Lesson 2

Our atmosphere is made up mostly of nitrogen and oxygen.

Unit 1, Lesson 3

Although air is very light, it still has mass and weight. The air has weight because gravity is pulling down on the air molecules.

Unit 1, Lesson 4

The study of weather is called meteorology, and someone who studies the weather is called a meteorologist.

Unit 2, Lesson 5

Weather describes the conditions in the atmosphere at a given moment; climate describes the overall pattern of weather conditions in a particular area.

Unit 3, Lesson 9

The constant moving of water is called the water cycle because water is moved and reused over and over again.

Unit 3, Lesson 10

Clouds are masses of water droplets or ice crystals suspended in the air.

Unit 3, Lesson 11

Scientists refer to three basic shapes of clouds: stratus, cumulus, and cirrus.

Unit 3, Lesson 12

About ten percent of all clouds produce precipitation.

Unit 4, Lesson 13

An air mass is a large amount of air that is a uniform temperature and humidity.

Unit 4, Lesson 14

Air always moves from an area of high pressure to an area of low pressure.

Unit 4, Lesson 15

Thunderstorms happen when the air is warm and there is a lot of moisture.

Unit 4, Lesson 16

Our word "tornado" comes from the Spanish word "tronada" meaning thunderstorm. Tornadoes usually form during thunderstorms.

Unit 4, Lesson 17

Tropical cyclones are called different names (hurricane, typhoon, or cyclone) depending on where they form.

Unit 5, Lesson 18

Meteorologists use thermometers to measure temperature, barometers to measure air pressure, and psychrometers or hygrometers to measure relative humidity.

Unit 5, Lesson 19

Meteorologists use an anemometer to measure wind speed and direction.

Unit 5, Lesson 20

The weather station model is a picture that quickly shows wind speed and direction, cloud cover, precipitation, temperature dew point, and air pressure.

Unit 6, Lesson 23

We generally divide the ocean into five main areas or oceans: the Pacific, Atlantic, Indian, Arctic and Antarctic.

Unit 6, Lesson 24

The oceans cover 71 percent of the earth's surface, and 97 percent of the earth's water is in the oceans.

Unit 6, Lesson 25

Currents in the northern hemisphere primarily flow clockwise; in the southern hemisphere, they primarily flow counterclockwise.

Unit 6, Lesson 26

Although most waves are caused by the wind, earthquakes and volcanoes generate some very dangerous tsunamis.

Unit 6, Lesson 27

Tides are caused by the gravitational attraction between the moon and the oceans.

Unit 6, Lesson 28

Waves wear away the shore as the moving water picks up sand and debris and carries them out to sea.

Unit 6, Lesson 29

Scientists have tried many different ways to capture the energy from waves and use it to make electricity for people to use.

Unit 6, Lesson 30

Scientists use diving suits and air tanks, submersibles, and remotely operated vehicles to study the oceans.

Unit 6, Lesson 31

Moving from the shore into the ocean, you would encounter the continental shelf, then the continental slope, and next the abyssal plain. On the abyssal plain, you would encounter seamounts and trenches.

Unit 6, Lesson 32

Scientists divide the ocean depths into five zones based on the amount of sunlight that penetrates: sunlit, twilight, abyss, and trench.

Unit 6, Lesson 33

A deep-sea vent is an area on the sea floor where very hot water shoots up from below the surface of the ocean floor. A type of bacteria that thrives on the sulfur in the vent water provides food for animals living near these vents.

Unit 6, Lesson 34

Coral reefs can be found in warm clear waters near the equator.

Our Universe

Unit 1, Lesson 2

The geocentric model placed the earth at the center of the universe while the heliocentric model places the sun at the center. Remember: “geo” means earth; “helio” means sun.

Unit 1, Lesson 3

The earth rotates on its axis and revolves around the sun.

Unit 1, Lesson 4

A telescope uses lenses and/or mirrors to make something look bigger.

Unit 2, Lesson 5

A light year refers to the distance that light travels in a year – about six trillion miles.

Unit 2, Lesson 6

Different stars burn at different temperatures, so some are brighter than others or shine with a slightly different color.

Unit 2, Lesson 7

A galaxy is a system of stars, dust, and gas held together by gravity

Unit 2, Lesson 8

The word “asteroid” means “star-like.” Asteroids are smaller than planets yet circle the sun in a regular orbit.

Unit 2, Lesson 9

Comets, which are made mostly of bits of rock and dust surrounded by ice, also orbit the sun.

Unit 2, Lesson 10

A meteor is a rock or other object in space that has gotten close enough to the earth to be pulled down by gravity.

Unit 3, Lesson 11

Our solar system consists of one star, eight planets, several dwarf planets, many moons, asteroids, comets, and meteoroids.

Unit 3, Lesson 12

The sun is just the right distance away to provide enough heat to warm the earth and enough light for plants to grow.

Unit 3, Lesson 13

You should never look directly at the sun because it is so bright it can damage your eyes.

Unit 3, Lesson 14

A solar eclipse occurs when the moon, which comes directly between the sun and the earth, blocks the sun's light and casts a shadow on the earth.

Unit 3, Lesson 15

Solar energy is energy we get from the sun.

Unit 3, Lesson 16

The word "month" comes from an old word for "moon."

Unit 3, Lesson 17

The moon revolves around the earth about once a month; it rotates on its axis once per month.

Unit 4, Lesson 19

Because Mercury has no atmosphere, the side facing the sun is extremely hot while the side opposite the sun is extremely cold.

Unit 4, Lesson 20

Venus's atmosphere is made of carbon dioxide, and it is surrounded by thick clouds of sulfuric acid. It appears so bright because its atmosphere reflects over seventy-five percent of the light that hits it.

Unit 4, Lesson 21

Earth is the only planet in our solar system with a significant amount of water.

Unit 4, Lesson 22

Mars is sometimes called the red planet because the soil has a large amount of rust in it, giving the planet a reddish tint.

Unit 4, Lesson 23

Jupiter's Red Spot is believed to be a giant storm that has been raging for hundreds of years.

Unit 4, Lesson 24

Saturn is famous for its thousands of rings, and scientists believe it may have as many as fifty-six moons.

Unit 4, Lesson 25

Uranus has winds that move from east to west at 90 to 360 mph, and its average temperature is -365°F .

Unit 4, Lesson 26

Neptune is so far away from the sun that from its surface, the sun would appear as only a bright star.

Unit 4, Lesson 27

Pluto, once considered the ninth planet, and Eris are classified as plutoids.

Unit 5, Lesson 28

The first major job NASA had to do was find a way to send a man to the moon.

Unit 5, Lesson 29

The first man in space was a Soviet named Yuri Gagarin.

Unit 5, Lesson 30

The Apollo program was a series of manned space missions undertaken by the United States of America. Its goal, to land a man on the moon and return him safely to earth, was achieved with the Apollo 11 mission in 1969.

Unit 5, Lesson 31

The space shuttle system has three parts: the orbiter, the liquid fuel tank, and the solid rocket boosters.

Unit 5, Lesson 32

The International Space Station, started in 1998, is a cooperative effort among several countries.