

UNIT 4 VOCABULARY

This report provides a summary of key vocabulary for this unit. For each word, you will find the definition, related words, its word family, and examples of how the word, or forms of the word, are used in a sentence.

accretion

- an increase by natural growth or addition
- something contributing to growth or increase
- (astronomy) the formation of a celestial object by the effect of gravity pulling together surrounding objects and gases
- (biology) growth by addition as by the adhesion of parts or particles
- (geology) an increase in land resulting from alluvial deposits or waterborne sediment
- (law) an increase in a beneficiary's share in an estate (as when a co-beneficiary dies or fails to meet some condition or rejects the inheritance)

Related words: accretion, accumulation, growth

- Examples:**
- Recall (chapter 12) that the earth formed from the accretion of planetesimals.
 - As we shall see later in more detail, standing on our own two feet freed our hands for manipulation, which then led to a major accretion of human cultural and physiological traits.

adapt

- make fit for, or change to suit a new purpose
- adapt or conform oneself to new or different conditions

Related words: accommodate, adapt, adjust, conform

Word family: adapting, adapts, adaptations, adaptor, adapter, adaptable, adaptation, maladaptive, adaptive, adapted, adaptability, adapt

- Examples:**
- Learning enables you to adapt, or adjust, to your environment.
 - Any life form must adapt to and interact with its physical environment.
 - Flowers adapt in curious ways to make cross-pollination possible.

continental drift

The idea that the Earth's continents move in relation to each other, so that continents currently separated by oceans were joined together in the past. The theory of plate tectonics explains why continental drift occurs.

- Examples:**
- He did this by adapting Wegener's theory of continental drift to modern geology.
 - Wegener's theory is called the continental drift.
 - This theory of moving continents is called continental drift.

determine

- establish after a calculation, investigation, experiment, survey, or study
- shape or influence; give direction to
- fix conclusively or authoritatively
- decide upon or fix definitely
- reach, make, or come to a decision about something
- fix in scope; fix the boundaries of
- settle conclusively; come to terms
- find out, learn, or determine with certainty, usually by making an inquiry or other effort

Related words: ascertain, check, decide, define, determine, find, fix, influence, learn, limit, mold, regulate, see, set, settle, shape, specify, watch

Word family: determinate, determinant, predetermined, determination, determine, determinants, determinedly, determinist, determines, determining, deterministic, indeterminate, undetermined, predetermine, determined, determinations, determinism

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Examples:	<ul style="list-style-type: none"> To determine the distance to the most distant stars, astronomers once again use the spectroscope. A recessive gene can only determine a trait when paired with the same kind of recessive gene. You must determine whether there will be a demand for your product or service.
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earthquake

- shaking and vibration at the surface of the earth resulting from underground movement along a fault plane or from volcanic activity
- a disturbance that is extremely disruptive

Related words:	earthquake, quake, tremor
Word family:	earthquake, earthquakes
Examples:	<ul style="list-style-type: none"> Earthquake waves can be recorded by instruments called seismographs. An earthquake causes objects on the surface of the crust to shake. Racing southward, the earthquake then uprooted forests of redwood trees, wrecked several small towns, and moved millions of tons of rock.

evidence

- your basis for belief or disbelief; knowledge on which to base belief
- an indication that makes something evident
- provide evidence for; stand as proof of; show by one's behavior, attitude, or external attributes
- (law) all the means by which any alleged matter of fact whose truth is investigated at judicial trial is established or disproved
- provide evidence for
- give evidence

Related words:	attest, certify, demonstrate, evidence, grounds, manifest, prove, show, tell, testify
Word family:	evidencing, evident, evidence, evidenced, evidences, evidential, evidently
Examples:	<ul style="list-style-type: none"> By studying the evidence, archaeologists have learned much about early people. A depositor should keep his cancelled checks as evidence that payments have been made. Now that we have examined the various forms of evidence that are used by the speaker, let us turn to the process of assembling evidence and ideas into some coherent form.

extend

- extend in scope or range or area
- stretch out over a distance, space, time, or scope; run or extend between two points or beyond a certain point
- span an interval of distance, space or time
- make available; provide
- thrust or extend out
- reach outward in space
- offer verbally
- extend one's limbs or muscles, or the entire body
- expand the influence of
- lengthen in time; cause to be or last longer
- extend or stretch out to a greater or the full length
- cause to move at full gallop
- open or straighten out; unbend
- use to the utmost; exert vigorously or to full capacity
- prolong the time allowed for payment of
- continue or extend
- increase in quantity or bulk by adding a cheaper substance

Related words:	broaden, carry, continue, cover, enlarge, expand, extend, gallop, increase, lead, lengthen, offer, pass, prolong, protract, run, strain, stretch, unfold, widen
Word family:	extendable, extended, overextension, extension, extend, overextend, extensively, extending, extends, extender, extensions, extensive

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Examples:	<ul style="list-style-type: none"> • A thread from one neuron may extend the entire length of your leg. • Many vendors such as stores and oil companies extend credit by issuing charge cards or credit cards. • Until recently, the earth's atmosphere was thought to extend only about 100 miles above the surface of the earth.
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geology

- a science that deals with the history of the earth as recorded in rocks

Related words:	geology
Word family:	geological, geology
Examples:	<ul style="list-style-type: none"> • The development and history of life are important aspects of historical geology. • The odors in mines and caves may be clues to the geology of the area. • The fields of chemistry and physics, as well as parts of biology and geology, are all physical sciences.

historian

- a person who is an authority on history and who studies it and writes about it

Related words:	historian
Word family:	historiography, prehistoric, historians, historian, histories, historic, historical, prehistory, historically, history
Examples:	<ul style="list-style-type: none"> • Often, an archeologist or historian will develop an explanation or a theory. • A historian looks at evidence from the past and comes up with a hunch. • More than two thousand years ago, a Greek historian wondered why men called Africa and Asia separate continents.

history

- the aggregate of past events
- a record or narrative description of past events
- the discipline that records and interprets past events involving human beings
- the continuum of events occurring in succession leading from the past to the present and even into the future
- all that is remembered of the past as preserved in writing; a body of knowledge

Related words:	account, background, chronicle, history, log, past, story, tale
Word family:	historiography, prehistoric, historians, historian, histories, historic, historical, prehistory, historically, history
Examples:	<ul style="list-style-type: none"> • Most records of history are writings. • History is the story of people. • China has a long history and tradition.

observe

- discover or determine the existence, presence, or fact of
- make mention of
- observe with care or pay close attention to
- watch attentively
- show respect towards
- behave as expected during of holidays or rites
- follow with the eyes or the mind
- stick to correctly or closely
- conform one's action or practice to

Related words:	celebrate, detect, discover, find, follow, honor, honour, keep, maintain, mention, note, notice, observe, remark, respect, watch
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Word family:	observational, observable, observatory, observance, observation, observer, observant, observed, observes, observers, observe, observations, unobserved, observatories, observing
Examples:	<ul style="list-style-type: none"> You use all your senses to observe. Scientists use special equipment to observe the moon. When you observe, look for many details.

orbit

<ul style="list-style-type: none"> the (usually elliptical) path described by one celestial body in its revolution about another move in an orbit 	
Related words:	ambit, area, arena, compass, domain, field, launch, orb, orbit, range, reach, revolve, scope, sphere
Word family:	orbital, orbiter, orbit, orbitals, orbits, orbited, suborbital, orbiting
Examples:	<ul style="list-style-type: none"> The path is called an orbit. A satellite follows an orbit or path around another object. The revolving object follows an orbit as it moves.

origin

<ul style="list-style-type: none"> the place where something begins, where it springs into being properties attributable to your ancestry an event that is a beginning; a first part or stage of subsequent events the descendants of one individual the point of intersection of coordinate axes; where the values of the coordinates are all zero the source of something's existence or from which it derives or is derived 	
Related words:	ancestry, beginning, blood, bloodline, descent, extraction, inception, line, lineage, origin, origination, parentage, pedigree, root, source, stock
Word family:	origin, originating, originals, origins, originated, origination, originate, originality, originally, originator, original, originates
Examples:	<ul style="list-style-type: none"> Excepteur sint occaecat cupidatat non proident. Sunt in culpa qui officia deserunt mollit anim id est laborum.

planet

<ul style="list-style-type: none"> (astronomy) any of the eight large celestial bodies in the solar system that revolve around the sun and shine by reflected light; Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, and Neptune a person who follows or serves another any celestial body (other than comets or satellites) that revolves around a star 	
Related words:	planet, satellite
Word family:	planetary, plantar, interplanetary, planet, planetarium, planets
Examples:	<ul style="list-style-type: none"> Mercury is the first planet on your mission. It is the smallest planet in the solar system. Venus is the second planet from the sun.

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produce

- bring forth or yield
- create or manufacture a man-made product
- cause to happen, occur or exist
- cultivate by growing, often involving improvements by means of agricultural techniques
- bring onto the market or release
- fresh fruits and vegetable grown for the market
- come to have or undergo a change of (physical features and attributes)
- bring out for display

Related words: acquire, create, develop, farm, get, grow, make, produce, raise

Word family: mass-produced, reproductively, unproductive, producer, produces, produced, productions, productive, productivity, preproduction, overproduction, productively, production, counterproductive, nonproductive, reproducible, overproduce, product, reproduced, by-products, producers, reproduces, produce, mass-production, producing, by-product, reproductions, unproduced, reproductive, reproduce, products, byproduct, reproduction, reproducing

- Examples:**
- Not all nuclear chain reactions produce an explosion.
 - Many plants do not produce seeds at all.
 - Fuels are substances that are burned to produce energy.
 - Fungi are a group of organisms that do not produce seeds.
 - The longer string will produce a lower sound than the shorter string.
 - More than one source of energy is used to produce, or make, electricity.

scholar

- a learned person (especially in the humanities); someone who by long study has gained mastery in one or more disciplines
- someone (especially a child) who learns (as from a teacher) or takes up knowledge or beliefs
- a student who holds a scholarship

Related words: bookman, learner, scholar, student

Word family: scholarships, scholastic, scholar, scholars, scholarly, scholarship

- Examples:**
- Manual labor was considered beneath the dignity of the scholar.
 - The scholar suggested a plan that Caesar and later Augustus adopted for the Roman calendar.
 - In the year 1138, the royal palace at Palermo, Sicily was the scene of a long-awaited meeting between a Christian king and a Muslim scholar.

scientific

- of or relating to the practice of science
- conforming with the principles or methods used in science

Related words: scientific

Word family: scientific, prescience, science, scientifically, omniscience, sciences, pseudoscience, scientist, scientists, pseudoscientific

- Examples:**
- A scientific hypothesis is an educated guess.
 - A scientific theory must be able to be tested.
 - Technology is the use of scientific knowledge in a practical way.

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scientist

- a person with advanced knowledge of one or more sciences

Related words: scientist

Word family: scientific, prescience, science, scientifically, omniscience, sciences, pseudoscience, scientist, scientists, pseudoscientific

- Examples:**
- Describing is another skill of the scientist.
 - The scientist works in many different ways.
 - These are the natural talents or skills of a scientist.

surface

- the outer boundary of an artifact or a material layer constituting or resembling such a boundary
- the extended two-dimensional outer boundary of a three-dimensional object
- the outermost level of the land or sea
- a superficial aspect as opposed to the real nature of something
- information that has become public
- on the surface
- come to the surface
- a device that provides reactive force when in motion relative to the surrounding air; can lift or control a plane in flight
- put a coat on; cover the surface of; furnish with a surface
- appear or become visible; make a showing

Related words: airfoil, coat, open, upside, rise, surface

Word family: surfaces, subsurface, surfaced, resurface, surfacing, surface

- Examples:**
- Mirrors have a very smooth surface.
 - Sunspots show up as black spots on the sun's surface.
 - On a windy day, the surface of a pond is rough.

system

- instrumentality that combines interrelated interacting artifacts designed to work as a coherent entity
- a group of independent but interrelated elements comprising a unified whole
- (physical chemistry) a sample of matter in which substances in different phases are in equilibrium
- a complex of methods or rules governing behavior
- an organized structure for arranging or classifying
- a group of physiologically or anatomically related organs or parts
- a procedure or process for obtaining an objective
- the living body considered as made up of interdependent components forming a unified whole
- an ordered manner; orderliness by virtue of being methodical and well organized

Related words: apparatus, arrangement, complex, composition, logistics, machinery, organisation, organization, scheme, structure, synthesis, system

Word family: subsystem, systematize, systematically, systemize, system, systemic, systems, systematic, ecosystem, ecosystems, systemically

- Examples:**
- There is more than one system of measurement.
 - We have an economic system within our nation.
 - A computer system cannot do anything without an operating system.

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tectonic plates

The huge rigid slabs of rock that the Earth's crust (together with the upper mantle) is broken up into, which are in constant motion. Some plates carry continents, producing continental drift that dramatically changes the relative locations of continents over millions of years.

universe

- everything that exists anywhere
- (statistics) the entire aggregation of items from which samples can be drawn
- everything stated or assumed in a given discussion

Related words: cosmos, creation, existence, population, universe, world

Word family: universalist, universality, universes, universe, universal, universally

- Examples:**
- Our solar system is part of a vast universe.
 - All objects in the universe are made of matter.
 - Some scientists have questioned whether the universe had a beginning.

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