

UNIT 5 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.

adaptation

- a written work (as a novel) that has been recast in a new form
- the process of adapting to something (such as environmental conditions)
- (physiology) the responsive adjustment of a sense organ (as the eye) to varying conditions (as of light)

Related words: adaptation, adjustment, version

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

- Examples:**
- What special adaptation do you observe on the deer?
 - Being able to blend into the environment is an adaptation called camouflage.
 - Animals that are the same color as their surroundings have an adaptation called protective coloration.

biology

- the science that studies living organisms
- characteristic life processes and phenomena of living organisms
- all the plant and animal life of a particular region

Related words: biology, biota

Word family: biology, biologists, microbiology, biologic, biologist, microbiologist, neurobiology, biologically, neurobiological, psychobiological, biological

- Examples:**
- Biology and ecology are closely related life sciences.
 - Biology, chemistry, and physics are the three main sciences.
 - Human biology includes the study of human diseases and reproduction and how the human body works.

complex

- complicated in structure; consisting of interconnected parts
- a compound described in terms of the central atom to which other atoms are bound or coordinated
- a whole structure (as a building) made up of interconnected or related structures
- a conceptual whole made up of complicated and related parts
- (psychoanalysis) a combination of emotions and impulses that have been rejected from awareness but still influence a person's behavior

Related words: complex, complicated, composite, detailed, difficult, hard, intricate, involved, tough

Word family: complexities, complexes, complexity, complex

- Examples:**
- Compound machines that have many parts are complex machines.
 - The honeybee colony is an example of complex insect behavior.
 - A basic ingredient of every complex sentence is the dependent clause.

environment

- the totality of surrounding conditions
- the area in which something exists or lives

Related words: environment, environs, surround, surroundings

UNIT 5 VOCABULARY

Word family:	environs, environmentalism, environmentalist, environmentalists, environments, environment, environmental, environmentally
Examples:	<ul style="list-style-type: none"> • Many things make up the environment. • Climate is a part of the environment. • People change the environment all the time.

environmental

- of or relating to the external conditions or surroundings
- concerned with the ecological effects of altering the environment

Related words:	environmental
Word family:	environs, environmentalism, environmentalist, environmentalists, environments, environment, environmental, environmentally
Examples:	<ul style="list-style-type: none"> • Environmental engineers usually specialize in a particular area of service. • Politicians are keenly aware of the environmental issues in their districts. • While technology has improved the quality of life for many people, it also has helped cause many environmental problems.

eukaryotes

- an organism with cells characteristic of all life forms except primitive microorganisms such as bacteria; i.e. an organism with 'good' or membrane-bound nuclei in its cells

Examples:	<ul style="list-style-type: none"> • Cells without a distinct nucleus are prokaryotes, while those with a distinct nucleus are eukaryotes. • Therefore, all monera are prokaryotes and all other kinds of organisms are eukaryotes. • How do the genes of eukaryotes become turned off or on in the course of cell specialization and in response to environmental stimuli?
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evolution

- a process in which something passes by degrees to a different stage (especially a more advanced or mature stage)
- (biology) the sequence of events involved in the evolutionary development of a species or taxonomic group of organisms

Related words:	development, evolution, phylogeny
Word family:	evolutionists, evolution, evolutionary, evolve, evolving, evolves, evolved, evolutionist
Examples:	<ul style="list-style-type: none"> • The idea of evolution was itself highly controversial in Darwin's time. • Evolution has been going on since the Earth was formed billions of years ago. • Scientists believe that modern man, like all other living organisms, is the product of evolution.

evolve

- work out
- undergo development or evolution
- gain through experience

Related words:	acquire, develop, evolve, germinate
Word family:	evolutionists, evolution, evolutionary, evolve, evolving, evolves, evolved, evolutionist

UNIT 5 VOCABULARY

Examples:	<ul style="list-style-type: none"> Once on the islands, the ancestral species could evolve rapidly. Because their generation times are short, new species of unicellular organisms may evolve in years, months, or even days. Democratic peoples hope that additional nations eventually will evolve toward political freedoms and human rights.
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extinction event

A specific time in the Earth's history (or future) when very large numbers of species die off. These events may occur abruptly or over a longer period of time. In the last 600 million years, there have been five events in which over half of all animal species died.

Examples:	<ul style="list-style-type: none"> A major extinction event at the end of the Cretaceous Period 65 million years ago had a great impact on many forms of life, including dinosaurs. And there is no doubt that the Triassic Period ended with a significant extinction event. The current extinction event being suffered across the globe will affect us in ways we have not predicted.
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fossil fuels

A carbon-based material such as coal, oil, or natural gas that can be used as an energy source. Fossil fuels were originally formed when the remains of living organisms were buried and broken down by intense heat and pressure over millions of years.

Examples:	<ul style="list-style-type: none"> Energy in the form of fuel is needed to heat homes and buildings. This fuel is a black, thick organic liquid trapped in rocks deep in the ground. Petroleum is a fossil fuel because it is the remains of once living animals and plants.
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fossils

- someone whose style is out of fashion
- the remains (or an impression) of a plant or animal that existed in a past geological age and that has been excavated from the soil

Related words:	dodo, fogey, fossil
Word family:	fossils, fossilized, fossilization, fossil
Examples:	<ul style="list-style-type: none"> Many fossils are found in rocks. Geologists use fossils to learn about life in the past. What fossils have you found or seen?

gene

- (genetics) a segment of DNA that is involved in producing a polypeptide chain; it can include regions preceding and following the coding DNA as well as introns between the exons; it is considered a unit of heredity

Related words:	factor, gene
Word family:	genetics, genealogy, genes, geneticist, genealogical, genetic, genetically, gene
Examples:	<ul style="list-style-type: none"> Scientists study genes to determine how an organism evolved over time. The genetic code of humans has been documented using a catalog of human genes. All living organisms can trace their ancestry back to a single-celled prokaryote using a map of genes or DNA.

homeostasis

- (physiology) metabolic equilibrium actively maintained by several complex biological mechanisms that operate via the autonomic nervous system to offset disrupting changes

UNIT 5 VOCABULARY

Word family:	homeostasis
Examples:	<ul style="list-style-type: none"> • Such things are signs your body gives off when its homeostasis, or state of balance, is upset. • There are many other signs your body may give off when its homeostasis is upset. • There are many things that can upset the body's homeostasis.

iridium

<ul style="list-style-type: none"> • a heavy brittle metallic element of the platinum group; used in alloys; occurs in natural alloys with platinum or osmium 	
Word family:	iridium
Examples:	<ul style="list-style-type: none"> • It is found native as nuggets and alloyed with the rare metals, osmium and iridium.

natural

<ul style="list-style-type: none"> • in accordance with nature; relating to or concerning nature • existing in or produced by nature; not artificial or imitation • existing in or in conformity with nature or the observable world; neither supernatural nor magical • functioning or occurring in a normal way; lacking abnormalities or deficiencies • someone regarded as certain to succeed • unthinking; prompted by (or as if by) instinct • (used especially of commodities) being unprocessed or manufactured using only simple or minimal processes • related by blood; not adopted • being talented through inherited qualities • free from artificiality 	
Related words:	born, cancel, inevitable, innate, instinctive, lifelike, natural, necessary, raw, reasonable, rude
Word family:	nature, naturalized, denatured, unnaturally, natured, naturally, naturedly, natural, naturalistic, naturalist, unnatural, supernatural, natures, naturalization, naturalists
Examples:	<ul style="list-style-type: none"> • Soil is one of our most valuable natural resources. • Natural resources are things we get from the earth. • Water, fish, wild animals and trees are natural resources.

organism

<ul style="list-style-type: none"> • a living thing that has (or can develop) the ability to act or function independently • a system considered analogous in structure or function to a living body 	
Related words:	being, organism
Word family:	microorganisms, microorganism, organism, organisms
Examples:	<ul style="list-style-type: none"> • In mutualism, each organism does something that benefits the other organism. • When a single-celled organism divides, two new individual cells are formed. • A very complex organism has cells that do one special thing very well.

UNIT 5 VOCABULARY

process

- a particular course of action intended to achieve a result
- (psychology) the performance of some composite cognitive activity; an operation that affects mental contents
- subject to a process or treatment, with the aim of readying for some purpose, improving, or remedying a condition
- perform mathematical and logical operations on (data) according to programmed instructions in order to obtain the required information
- a writ issued by authority of law; usually compels the defendant's attendance in a civil suit; failure to appear results in a default judgment against the defendant
- deal with in a routine way
- a mental process that you are not directly aware of
- a natural prolongation or projection from a part of an organism either animal or plant
- a sustained phenomenon or one marked by gradual changes through a series of states
- institute legal proceedings against; file a suit against
- march in a procession
- shape, form, or improve a material
- deliver a warrant or summons to someone

Related words: action, appendage, march, operation, outgrowth, procedure, process, serve, sue, summons, treat, work

Word family: processes, reprocess, processors, process, processing, procession, unprocessed, processed, microprocessor, processional, processor

- Examples:**
- The mixing with saliva also helps in the next process, which is swallowing.
 - The body uses a highly involved process to break down and use food.
 - A process is a change in the state or thermodynamic coordinates of a system.

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.

prokaryotes

- a unicellular organism having cells lacking membrane-bound nuclei; bacteria are the prime example but also included are blue-green algae and actinomycetes and mycoplasma

- Examples:**
- Cells without a distinct nucleus are prokaryotes, while those with a distinct nucleus are eukaryotes.
 - Therefore, all monera are prokaryotes and all other kinds of organisms are eukaryotes.
 - Remember that prokaryotes lack a membrane-bound nucleus and membrane-bound organelles.

UNIT 5 VOCABULARY

protein

- any of a large group of nitrogenous organic compounds that are essential constituents of living cells; consist of polymers of amino acids; essential in the diet of animals for growth and for repair of cells

Related words: protein

Word family: protein, proteins

- Examples:**
- Fish are rich in animal protein.
 - The building blocks of protein are known as amino acids.
 - Several different levels of organization can be distinguished in the protein molecule.

selection

- the act of choosing or selecting
- an assortment of things from which a choice can be made
- the person or thing chosen or selected
- a natural process resulting in the evolution of organisms best adapted to the environment
- a passage selected from a larger work

Related words: choice, excerpt, extract, number, option, pick, piece, selection, subset, survival

Word family: selection, selections, selecting, selected, selector, selectivity, selective, selectively, selects, select

- Examples:**
- The summary should be much shorter than the original selection.
 - Several methods are employed in the states for the selection of judges.
 - The behavior of animals is modified and adapted through natural selection to suit species' particular lifestyles.

survive

- continue to live through hardship or adversity
- continue in existence after (an adversity, etc.)
- support oneself
- live longer than

Related words: endure, exist, last, live, outlast, outlive, subsist, survive

Word family: survives, survivor, survival, surviving, survivors, survived, survive, survivorship

- Examples:**
- All organisms live where conditions allow them to survive.
 - Ospreys have sharp claws and large wings to help them survive.
 - If conditions are not right for bacteria to grow, they can still survive.



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