

Vocabulary Chapter 10 Ordering Life in the Biosphere

species

The basic smallest unit of organism classification. Different species cannot breed with each other and produce viable offspring which can also reproduce.

Examples: coastal redwood, golden eagle, California poppy

taxonomy

The study of plant and animal classification

Example: The taxonomy of the ape family shows many key characteristics.

homology

A likeness in form

Examples: Bird wings, human arms, fish flippers are all homologous

related ancestry

A group of organisms related by a common ancestor

Examples: Many whales share a common land animal ancestor

fossil

A cast of a once-living organism preserved in stone

Examples: Dinosaur fossils were found in northeast Utah.

genus

The next largest level (above species) in the biological classification system

Example: the wolf and coyote group or canis genus

family

The next largest level (above genus) in the biological classification system

Example: the dog or canidae family

order

The next largest level (above family) in the biological classification system

Example: meat eaters or carnivora

phylum

The next largest level (above order) in the biological classification system

Example: animals with backbones or chordata

kingdom

The next largest level (above phylum) in the biological classification system

Example: animals or animalia kingdom

autotroph

An organism that can make its own food using light energy

Example: Green plants

heterotroph

An organism that obtains energy from other plants or animals

Examples: humans, bears, amoebas

protists

A kingdom of simple but related organisms including algae, ciliates, and various protozoans

Examples: algae, slime molds, protozoans

fungi

A kingdom of organisms that develop from spores

Examples: mushrooms, yeast, mold

plantae

The kingdom of plants which produce their own food

Examples: sunflowers, redwood trees, grass

stromatolites

Rock formations containing the most ancient forms of life

Examples: Fossil prokaryotes are found in stromatolites.

"organic soup"

A term given to the various liquids found on ancient earth in which life first began

Example: Organic compounds were found in the pools and lakes of the very warm early earth.

greenhouse effect

A process in which an environment is warmed by the rays of the sun, heating a surface and trapping some of the heat

Example: The greenhouse effect is easily experienced when an automobile sits in the sun with the windows closed.

coacervates

A group of protein-like substances held together in a small droplet

anaerobic

Without oxygen

Example: Anaerobic bacteria can live in many places.

ozone

A form of oxygen

Example: The ozone layer around the earth helps protect us from ultraviolet rays.

crystal

A nonliving particle capable of growing by taking on material from its immediate environment

Example: Salt crystals often form around lakes in deserts.

Gia hypothesis

A hypothesis maintaining that all of the earth is one big self-regulating system.