



TARGET
Curriculum



Glossary



Glossary

Adaptation: Modification of an organism in structure or function in adjusting to a new condition or environment. The term refers to how a feature is used to enhance survival, while "characteristic" refers to the feature itself.

Aestivation: A prolonged dormant stage that enables an animal to escape the summer months in a hot climate. Body processes slow down drastically. "Mid-summer nap."

Altricial: Young are born in an immature and dependent state, and remain dependent on mother for a period of time.

Amphibious: Adapted to living both on land and in water.

Antennae: A pair of sense organs on the head of insects.

Anterior: Situated toward the head end of an animal.

Anthropomorphic: Attributing human characteristics or mannerisms to nonhuman beings or objects. Anthropomorphism is not acceptable in a scientific or educational environment.

Anticamouflage: The color pattern of skin, fur, or feathers which clearly identify the species and frighten off would-be predators.

Antler: The branched, deciduous (shed every year) horn belonging to members of the deer family. Consisting solely of bone when mature, it is covered with skin during the growth period. (See velvet)

Appendage: An external organ or limb, such as tail, hair, arm, etc.

Aquatic: Growing in, living in, or frequenting water.

Arachnid: An animal with 8 legs and 2 main body parts.

Arboreal: Tree-dwelling.

Arthropod: A joint-legged invertebrate with an exoskeleton.

B

Background: The natural environment or setting in which an animal normally moves or lives.



Balance Of Nature: Term used to describe the relatively stable ratio of living organisms within their natural environment. In nature, if such a ratio becomes unbalanced by an over-population of one or more species, deaths will occur to reduce that species to its proper ratio (lack of food, etc.) Man can upset the balance by artificial means.

Binocular Vision: Both eyes function simultaneously when viewing an object, thus permitting judgment of distance.

Binomial Nomenclature: The system of naming organisms in which each species is given a scientific name consisting of two Latin words; the first designates the genus, the second a genus subdivision. The genus name is capitalized, the subdivision is not; both are italicized. (Example: Man - *Homo sapiens*)

Biogeography: The science that deals with the distribution of plants and animals over the surface of the earth, and the factors accounting for such. There are six biogeographical regions in the world.

Biological Clock: A time-measuring process within a living organism which governs response to external events. Often controlled by amount of light, temperature, etc.

Biomass: The amount of living material in a given area, expressed as weight or volume.

Biome: A major biotic community characterized by distinctiveness of life-forms. Terrestrial biomes are named after their dominant plant (woodland, tundra, etc.).

Biotic Community: Any collection of plants and animals living together in a given area, which is held together by the relationship with and dependence on others.

Bipedal: Having two feet.

Browser: Feeding on twigs and leaves of woody plants.

C

Camouflage: The color and pattern of animals' skin, feathers or fur which help conceal them from their enemies by blending them into their natural background. Anti-camouflage, protective coloration, cryptic coloration.

Canine Teeth: Sharp, pointed teeth lying lateral to the incisors.

Carnivore: Meat and fish-eating animal.

Catalepsy: Feigning death.



Characteristic: A feature or trait, either structural or physiological, possessed by individual members of a group, by means of which the members can be recognized or distinguished from members of other groups. A characteristic is the physical feature itself; the way it is used is called an adaptation.

Chitin: The substance which strengthens the exoskeleton of some animals making it hard, waterproof and flexible.

Chrysalis: Pupa. The form most insects assume between the larval (caterpillar) and adult (winged). Also, the case or cocoon enveloping the insect at this stage.

Climax Community: A stable plant community, which is the culmination of a succession of less stable states and is unlikely to change further.

Cocoon: A pupal covering composed in part or entirely of silk spun by a larva.

Cold-Blooded: Having a body temperature that varies with the environment. Poikilothermous.

Commensalism: The state of being commensal, i.e., an animal living with another for support or sometimes for mutual advantage, but not a parasite.

Communal: Level of social organization, refers to the situation in insects where members of the same generation share a nest and its construction, but not care of the brood; each female rears her own brood.

Competition: The situation in which two or more types of animals try to survive in the same habitat when each needs to use the limited food, shelter, and other resources available there.

Conspecific: Of the same species.

Convergent Evolution: Similar life styles give rise to similar creatures, although ancestry is very different. (Example – New World squirrel monkey and Old World Colobus monkey)

Countershading: The coloration of an animal so that parts normally in a shadow are light, and those normally in the light are darker. The effect is to counteract the effect of light, and make the animal appear more flat and shadow-like; a means of camouflage. Present in most cats and ungulates.

Crepuscular: Active at twilight, or in dim light.

Cryptic Coloration: See camouflage.



Cursorial: Adapted for running.

D

Decomposers: Living organisms which extract energy from dead bodies or excreta or other organisms. In the process, they release chemical compounds stored in the dead bodies, and make them available again in the cycle.

Dentition: The nature, number, and system of the teeth of a given species.

Dependency Period: Time during which young must rely on mother for food, protection, etc.

Digitigrade: Walking on toes or digits, with posterior portion of foot raised.

Display: An inherited behavior pattern, often involving elaborate posturing, movements, or other ritualized actions, by which animals of the same species communicate. (For example, during courtship and territory defense.)

Disruptive Coloration: The particular way an animal's pattern of color and shading is arranged so that its size and shape appear to be different than its actual size and shape. (See anti-camouflage)

Diurnal: Active during the day.

Domesticated: Pertaining to an animal which is the product of many generations of selected breeding for qualities which make it useful to man.

Dominant: Prevailing, controlling; conspicuously successful in competition. The dominant member of an animal group will almost always be its leader, while the dominant gene in reproduction will govern the makeup of the developing embryos.

Dormant: Not active; in a state of suspended animation.

E

Ecological Equivalent: Two or more animals that occupy similar ecological niches in different geographical areas. Examples: Sidewinder Rattlesnake of America and Sand Adder of the Sahara.

Ecology: The study of interrelationships between living things, and of relationships between organisms and their environment. Also called environmental biology.

Ecosystem: A complex system of exchanges of material and energies between living things and their environment (both living and non-living components). Examples: a balanced



aquarium, a forest, a large lake.

Ecotone: A transition zone between ecosystems where both blend together.

Ectothermal: Referring to body temperature dependent on the environment. Also called EXOTHERMAL.

Endangered Species: Any species which is in danger of extinction throughout all or a significant portion of its range. Living numbers are low. (See threshold level)

Endemic: Pertaining to a species that is native to a particular locale, and is found nowhere else unless it has been transplanted.

Endo-: A prefix meaning within or inside.

Endothermal: Referring to body temperature which is constant and regulated internally.

Environment: All the surrounding conditions, factors, and influences that affect development of a living organism in its growth, behavior, and characteristics.

Epi-: A prefix meaning on, upon, anterior, beside, among, on the outside.

Ethology: The study of the behavior of animals in their natural environment.

Evolution: The process by which complex organisms develop in an orderly fashion from simpler forms as a result of change and adaptation.

Ex-(Exo): A prefix meaning out, away from, beyond.

Exoskeleton: A protective external skeleton. (Crustaceans, turtles, armadillos)

Exotic: Of foreign origin; not native.

Extinct: No longer in existence; a species whose members have all died.

F

Fauna: Pertaining to animal life.

Feral: Animals which were once domesticated, but which have escaped and are living in the wild state.

Flora: Pertaining to plant life.

Folivore: Foliage eater.



Follower: Young who remains in close contact with mother during the first few weeks of life, following her like a shadow and often resting close to her.

Food Chain: A group of organisms involved in the transfer of energy from its primary source, plants. Example: algae - insects - small fish - large fish - mammals.

Fossorial: Adapted for burrowing or digging.

G

Gene: The units which are responsible for inherited characteristics of an organism. Genes are situated in linear order along the chromosomes within the cell nucleus.

Genetics: The science that deals with heredity and variation.

Genotype: The genetic constitution of an organism. A group of individuals with identical genes.

Grazer: An animal that feeds on grasses.

Grazing Succession: A system which allows more than one species to feed in an area without competition. Since different species eat different parts of the plant (leaf tips, leaves, roots, etc.), all can feed together compatibly.

Gregarious: Living together in herds, groups, or flocks.

Ground Color: The base or background coloration of an animal, in contrast to the color of the pattern markings.

H

Habitat: The natural home or dwelling place of an organism.

Herbivore: Plant eater.

Hetero-: Prefix meaning other or different.

Hibernation: A prolonged dormant state or torpor that enables an organism to escape the difficulties of survival during winter in cold climates. In TRUE HIBERNATION, body functions are slowed down greatly, and the animal cannot be aroused. The common concept of hibernation, as seen in bears, is simply a lethargic state from which the animal can be aroused.

Hider: Young which lies down in hidden place and remains there, away from mother. At



nursing time, mother will call young from hiding place, but will not go to it. Found in some ungulates, it is a protection method.

Homo-: Prefix meaning same or equal.

Horn: True horns are found on most antelopes; they are used for defense and courting rituals. Horns grow from the skull, with a solid bony core and a keratinous covering. Horns are never branched or shed; they grow continuously. (See antler)

Host: Any organism on or in which another (called parasite) lives for nourishment or protection. (See symbiosis)

Hybrid: The offspring of a cross between two different species, races, or varieties.

I

Imago: The adult stage of an insect.

Incubation: The act of maintaining the temperature of an egg by external means so that the embryo within may develop. The time it takes for an egg to hatch is the incubation period.

Innate: Inborn; natural; dependent on hereditary factors.

Insectivore: Insect-eating.

Instar: The stages between molts of nymphs or larvae.

Invertebrate: Lacking a backbone or spinal column.

Isolating Mechanism: Any inherent characteristic which separates a race or species from other closely related groups so that interbreeding does not occur. May be geographic, anatomical, ecological, genetic, cultural, or other factors.

J

K

L

Larva: Pre-adult insect form, unlike the parent in appearance.

Longevity: Life-span.

M



Mammal: Any vertebrate of the class Mammalia, characterized by possession of hair and mammary glands. They are air-breathing, warm-blooded, and possess a four-chambered heart. All are viviparous except the egg-laying monotremes.

Mammary Gland: Apocrine gland present in female mammals which secretes milk.

Mammilla: Nipple or teat.

Metamorphosis: The series of changes in the form and shape of animals during development (egg - larva - pupa - adult).

Migratory: Having periodic mass movement to and from feeding or reproductive and nesting areas.

Mimicry: A condition whereby a defenseless species owes its survival to the fact that it resembles by chance another species which has some defense, such as being distasteful or toxic. (See anti-camouflage)

Molt: To shed or cast off a body covering.

Morphology: The structure and form of an organism.

Mortality Rate: Death rate.

Mutualism: A form of symbiosis in which two organisms of different species live in intimate association with each other, to the advantage of both. (See symbiosis, parasitism)

N

Natural Selection: Principle of "survival of the fittest." All species tend to over-produce, hence there is a struggle for existence. Variations occur and individuals with favorable ones survive, those with less favorable ones are eliminated. Through successive generations gradual and continuous changes occur, resulting in the production of new types and species.

Niche: The place or position occupied by an organism in reference to other organisms.

Nocturnal: Active at night.

Nomadic: Wandering; having no permanent territory, but moving periodically and constantly in search of food and water.

Nomenclature: The scientific names of plants and animals, and the application of these names.



Nutrition: The taking in of food and its use by the body to make new body tissue and to provide energy. The elements which promote growth and provide energy are called nutrients.

Nymph: An insect which hatches from the egg in a miniature adult form.

Q

Olfactory: Of or pertaining to the sense of smell.

Omnivore: Eating both plants and animals.

Opportunist: An animal that feeds on whatever it can find. An organism that feeds habitually on refuse or carrion; a scavenger.

Opposable Digit: Digit capable of being held against other digits on the same limb, giving a grasping action. Great apes and man possess an opposable thumb.

Oviparous: Designating a type of reproduction in which females lay eggs which hatch outside the body, as in birds or insects.

Ovoviviparous: Designating a type of reproduction where the development is in the body of the female, producing living young. However, the young do not receive nourishment from the mother before birth through a placenta or similar structure. Examples: sharks and some snakes.

P

Pampas: The grasslands of South America, especially Argentina. Treeless.

Pan-: Prefix meaning all, every, comprising.

Parasite: An organism which lives in or on another organism from which it derives its nourishment.

Parasitism: Form of symbiosis in which parasite species benefits, host species suffers. (See symbiosis, mutualism)

Peck Order: A social hierarchy in which there is clear-cut dominance-subordination relationship between individuals in a group. One individual at the top dominates ("can peck") all other, while the one at the bottom is completely subordinate ("can be pecked by all"); in between are all degrees of subjugation.



Phenotype: The physical makeup or appearance of an organism, in contrast to its genetic constitution. (See genotype)

Plantigrade: Walking on the sole of the foot with heel touching the ground, as men and bears.

Poly-: Prefix meaning much, many, more than.

Posturing: Ritualistic stance or pose used in social interaction among animals.

Precocial: Designating young that, at birth or soon after, are active; able to move around and feed themselves.

Predator: An animal that captures and kills other animals for food.

Prehensile: Able to grasp.

Prey: An animal that is killed for food by another animal.

Primary Producers: Green plants; the basic link in any food chain. (See photosynthesis)

Protective Coloration: See camouflage.

Protist: Any one-celled plant or animal.

Pupa: The third stage in the life cycle of insects that have complete metamorphosis, which follows the larval stage. The pupa is often formed in a cocoon or made inconspicuous in some other way, as in the chrysalis of butterflies and moths.

Q

Quadruped: A four-footed animal.

R

Range: The particular area inhabited by a group of animals. An animal's distribution.

Recessive Gene: One which can produce its effects only in a homozygous individual (pairs of genes or series of pairs are alike), or in the absence of a dominant gene.

S

Scavenger: An animal that devours dead animals or feeds on dead organic material.



Sexual Dimorphism: A condition where the male and female of the same species do not have the same physical characteristics.

Socialized: Living together in organized groups.

Solitary: Existing alone or singly; not living with other individuals of the same kind.

Specialization: Adaptation for the performance of a specific function; adjusted to a distinctive type of habitat or environment.

Species: A division of a genus consisting of a group of individuals of common ancestry which closely resemble each other structurally and physiologically and, in nature, interbreed producing fertile offspring. (See binomial nomenclature)

Spiracles: The tiny openings which allow oxygen to enter an insect's body.

Steppes: A vast area of treeless grassland in southeastern Europe and western Asia.

Stereoscopic Vision: Three-dimensional sight, with perception of depth.

Symbiosis: A mode of life in which two organisms of different species live in intimate association with each other. Depending on the nature of the association, the relationship is designated as mutualism, parasitism, commensalism, or phoresis.

I

Taiga: Coniferous forest located in northern regions such as Canada, Scandinavia and Siberia.

Taxonomy: The science of classification; the arrangement of plants and animals into groups based on their natural relationships. (See binomial nomenclature)

Terrestrial: Adapted to and living on land.

Territorial: Confining activities to one area, and guarding it closely against intrusion from other members of the same species. Territory can be claimed by individuals, pairs, or family groups.

Thorax: The middle body segment of an insect (the chest).

Threatened: Any species which is likely to become an endangered species within the foreseeable future throughout all or a significant part of its range.

Threshold Level: Lowest level of a species' population at which it can continue to survive as a distinct species. When population drops below this level, deaths will usually surpass births, and the species may become extinct.



TREELINE: The level above which no trees grow.

Trophic Level: A stage in the food chain of an ecosystem in which organisms obtain their food in the same number of steps or in the same manner. (Examples - primary producer, herbivores, first level carnivores, second level carnivores, etc.)

Tundra: a biome characterized by short annual growing seasons, severe winters, and low temperatures. The level of slightly undulating treeless plains of northern regions.

U

Uni-: Prefix meaning having or consisting of one only.

V

Vector: An organism which transmits parasites or diseases to members of another species.

Veldt: Open country in southern Africa dominated by grasslands.

Vertebrate: Possessing a backbone (spinal or vertebral column). Individual segments of the backbone are called vertebra (Pl - vertebrae).



VIBRISSAE: Long, stiff hairs present on the snout of various animals such as the cat; a feeler or whisker.

VIVIPAROUS: Giving birth to living young which develop in and are nourished through the uterus. (Mostly all mammals)

VULNERABLE: Any species which is not yet necessarily threatened with extinction, but which may become so unless subjected to strict regulation.

W

WARM-BLOODED: Having a relatively high and constant body temperature. Homothermous.

WILD: In natural state; not domesticated.

X

Y

Z

ZOO-: Biological prefix referring to the animal kingdom.

ZOOGEOGRAPHY: The study of the geographic distribution of animals.