

GLOSSARY

** An asterisk by a word means it would only be used for 5th/6th grade at the semifinals but may be used for all grades at the finals.*

Adaptation: the process of adjusting to the environment in order to survive. Adaptations can be behavioral or structural. (horn for defense, speed for defense)

Amphibian: any of a class (Amphibia) of cold-blooded vertebrates (as frogs, toads, or salamanders) intermediate in many characters between fishes and reptiles and having gilled aquatic larvae and air-breathing adults

***Anadromous:** those fish which spend the greater part of their lives in salt water, but migrate into fresh water streams for reproduction (e.g. salmon, shad, bass, steelhead trout).

Aquatic: growing, living in or frequently in water.

Arachnid: an invertebrate having a segmented body divided into two regions of which the anterior bears four pairs of legs but no antennae (e.g. spiders)

Biologist: a person who studies living organisms.

Browser: an herbivore that consumes vegetation other than grasses like bush leaves, wildflowers, tree leaves and stems, etc...

Camouflage: colors, tones, patterns that enable an organism to blend in with its surrounding. Some organisms, for example, have skin or a coat that enables them to hide from predators.

Carnivore: a meat eater.

***Carrying capacity:** the balance between any life form and its environment. It is frequently expressed as a number of any given organisms that a given area can support. Carrying capacity varies throughout the year. The population number varies year to year,

dependent upon conditions within the habitat such as weather, food, and shelter.

***Chaparral:** dense growth of shrubs or small trees.

***Community:** all the plants and animals in a particular habitat that are bound together by food chains and other interrelationships.

Commensalism: a symbiotic relationship between two kinds of organisms in which one obtains food or other benefits from the other without damaging or benefiting it.

Competition: when two or more organisms have the potential for using the same resource. May be with animals of its kind (species) or with other species.

Compost: a fertilizing mixture made from decomposed yard and kitchen scraps.

Coniferous: refers to cone bearing trees such as pines, firs and redwoods.

Conservation: the use of natural resources in a way that assures their continuing availability to future generations; the wise and intelligent use or protection of natural resources (see preservation).

Consumer: the consumer utilizes the producer (a green plant) for its food; it may in turn be used as food by a secondary consumer. A rabbit is a primary consumer. A fox is a secondary consumer.

Deciduous: referring to trees that usually shed their leaves at one time such as cottonwood, willow, walnut, redbud and many oaks.

***Delta:** referring to the area of land and water where the Sacramento and San Joaquin Rivers meet or join to drain into the San Francisco Bay. This region includes many kinds of habitats.

***Development:** when wild lands are converted to farms, housing, roads, industry or business uses.

Diurnal: active during the day.

Ecology: the study of the interrelationships of living things to one another and to their environment.

***Ecosystem:** a natural unit that includes living and non-living parts interacting to produce a stable system; all living things and their environment in an area all linked together by energy and nutrient flow (e.g. marine, valley, mountain, woodland, etc.)

Endangered: species of plant or animal that is in danger of extinction throughout all or a significant portion of its range (refer to threatened and rare).

***Endemic:** naturally occurring only in a certain geographic area; the yellow-billed magpie is endemic to the Sacramento Valley.

***Energy:** a fundamental entity of nature that is transferred between parts of a system in the production of physical change within the system and usually regarded as the capacity for doing work.

Environment: all of the surroundings – air, water, vegetation, humans, wildlife – in which a person, animal or plant lives.

Erosion: removal or wearing away of soil or rock by water, wind, or other forces or processes.

Estuary: waterway such as a bay where there is a mixing of salt water and freshwater; an important habitat for fish and many kinds of birds and other animals.

Evergreen: a plant that does not lose all its leaves at one time, such as the live oak and most coniferous trees.

***Exotic:** a foreign plant or animal; one that has been introduced into new, non-native area. Examples include opossum and ring-necked pheasant.

Extinction: the condition of having been removed from existence. An animal or plant facing extinction is one in danger of vanishing from our world.

***Feral:** refers to a domesticated animal or plant that goes back to being wild.

Food Chain: the transfer of food energy from the source in plants through a series of animals. For example, a green leaf-eating insect and insect-eating bird would form a simple food chain. Any one species is usually represented in several food chains.

***Food Web:** more than one food chain connected together.

Forest: a complex community of plants and animals in which trees are the most common and dominant members.

Fungus: living organisms formerly classified as plants that lack chlorophyll and include molds, rusts, mildews, smuts, mushrooms, and yeasts; considered a decomposer.

Groundwater: water within the earth that supplies wells and springs.

Habitat: area/site that provides food, water, shelter or cover, and space suitable to plants and animals needs.

Hatchery: a place that raises fish, usually from eggs.

Herbicide: a chemical substance or preparation used to kill plants.

Herbivore: a plant eater.

Hibernation: the act of passing the winter, or portion of it, in a state of sleep; a torpid or resting state.

***Hydroelectric:** electric power converted from water; dams generate hydroelectric power.

***Inorganic:** being or composed of matter other than plant or animal.

***Insecticide:** a chemical substance or preparation used to kill insects.

***Introduced:** to leave or bring in for the first time; to introduce a nonnative species into a habitat.

***Invasive species:** a non-native plant or animal whose population threatens the native populations because of its ability to spread uncontrollably.

Invertebrate: animal that has no backbone like insects, spiders.

Larva: the immature, wingless, and often wormlike feeding form that hatches from the egg of many insects, alters chiefly in size while passing through several molts, and is finally transformed into a pupa or chrysalis from which the adult emerges.

Lichen: any of numerous complex plantlike organisms made up of an alga and a fungus growing in symbiotic association on a solid surface (as a rock).

Life cycle: a series of growth stages in the life of any organism.

Mammal: any of a class (Mammalia) of warm-blooded higher vertebrates that nourish their young with milk secreted by mammary glands, have the skin usually more or less covered with hair, and include humans.

Marine: of or relating to the sea or ocean.

Marsh: a wetland with few or no trees where standing fresh or salt water exists for some, or most, or all of the year.

Metamorphosis: series of changes in shape and function that certain animals go through as they develop from an immature form

to an adult. Caterpillars become butterflies and tadpoles become frogs.

Microhabitat: a small habitat within a larger one in which environmental conditions differ from those in the surrounding area. A hole in a tree trunk is a microhabitat within the forest.

Microorganism: an organism microscopic in size; observable only through a microscope.

Migration: when animals regularly leave a region to find better or more food, water, and/or shelter.

Native: refers to animals or plants that naturally occur in an area.

Natural resource: raw materials supplied by the earth and its processes; include nutrients, minerals, plants, animals, water, etc.

***Niche:** the ecological role of an organism in a community especially in regard to food consumption

Nocturnal: active at night.

***Non-renewable resources:** nonliving materials such as rocks and minerals; materials which do not regenerate themselves; substances such as petroleum, coal, and gold that cannot be replaced (at least not in this geological age).

Omnivore: an animal that eats both plants and animals.

Organic: being or composed of matter from plants and animals.

Organism: a living thing; a form of life composed of mutually dependent parts that maintain vital functions.

Parasite: an organism that benefits from another organism, usually doing harm to the organism from which it derives benefit.

Pesticide: any chemical preparation used to control populations of organisms (plants and animals) perceived to be harmful.

Photosynthesis: the process by which green plants make simple sugars in the presence of sunlight, carbon dioxide and water.

Pollinator: one that pollinates like an insect or hummingbird that pollinates flowers.

Pollution: harmful substances deposited in the air, water, or soil leading to a state of dirtiness or impurity.

Predator: an animal who kills and eats other animals.

***Preservation:** protection of natural resources which emphasizes non-consumptive (no hunting, no collecting, no development) values and uses; includes no direct use by humans.

Prey: animals that are killed and eaten by other animals.

Producers: green plants that are able to manufacture food from simple organic substances.

Pupa stage: an intermediate usually inactive stage of a metamorphic insect (as a bee, moth, or beetle) that occurs between the larva and the adult, is usually enclosed in a cocoon or protective covering, and undergoes internal changes by which larval structures are replaced by those typical of the adult.

Raptor: eagles, hawks, and owl; birds that are predatory preying upon other animals.

***Rare:** plant and animal species not presently in danger, but of concern because of low numbers.

Recycle: to process used or waste materials to make suitable for reuse.

Reduce: consume or use fewer goods.

Refuge: an area set aside for wildlife, plants and habitat.

***Renewable resource:** plants and animals that have the capacity to renew themselves when conditions for survival are favorable.

Reptile: any of a class (Reptilia) of air-breathing vertebrates that are cold-blooded and a body usually covered with scales or bony plates; includes alligators and crocodiles, lizards, snakes, turtles, etc.

***Restoration:** to return an area to its historically natural condition.

Reuse: to use the same product or item over again (e.g. bag, aluminum foil, bottle, etc.).

***Riparian:** located or living along or near a stream, river, or body of water, usually a type of woodland habitat.

***Riverine:** relating to, formed by, or resembling a river; living or situated on the banks of a river.

Runoff: water that drains or flows off the surface of the land.

Scavenger: organism that habitually feeds on refuse or dead organisms. Coyotes and magpies are part-time scavengers; a vulture is a scavenger.

Shelter: cover from the elements and predators.

Solar: refers to the sun (and its energy).

Spawning: the act of producing or depositing eggs; usually refers to fish; form of aquatic reproduction.

***Species:** a population of individuals that are more or less alike that are able to breed and produce fertile offspring under natural conditions; a category of classification immediately below genus.

***Succession:** the gradual and continuous replacement of one plant community by another, such as a woodland changing into a savannah or freshwater marsh becoming a meadow.

Threatened: a species of plant or animal in danger because of a decline in numbers.

Toxic: poisonous.

***Vernal Pools:** a disappearing habitat of the Central Valley grasslands characterized by shallow, clay-bottom pools that collect rainwater. The pools evaporate in the late spring/summer. The pools are habitat for many endemic plants and animals.

Vertebrate: an animal with a backbone.

Water cycle: the continuous circulation of water from oceans to air, to land and back to oceans. The cycle involves condensation, evaporation, run-off, precipitation and transpiration.

Waterfowl: a bird that frequents water; *especially* a swimming game bird (as a duck or goose) as distinguished from an upland game bird or shorebird

***Watershed:** the area of land that receives and distributes rainwater in to a stream, lake or river system.

Wetland: an area that is flooded during some or all of the year (e.g. marsh, mudflat, vernal pool, pond, riparian).

Wildlife: animals that are not tamed or domesticated; may be small organisms visible only through a microscope or as large as a whale.

Woodland: a complex community of plants and animals in which trees and grasses are the most common and dominant members; trees tops do not form a closed cover.