

## Vocabulary

The following key will help you to pick out words that are appropriate for the program or topic you are studying:

Senses/Wildlife/Habitat (H)  
Forest Processes (F)  
Earth Science (E)  
Scientific Words (S)

Fire Ecology (FE)  
Winter (W)  
People, Culture, and Protected Places (P)

- W ACCLIMATIZATION: Seasonal or long-term physiological adjustment, usually in response to temperature changes.
- H, F, W ADAPTATION: A structure or behavior that helps a living thing meet its basic needs and survive in its environment.
- W AGE HARDENING: Process of snow crystals changing within the snow pack over time.
- H, F ALPINE: Type of habitat above tree line with short summers and long winter. Conditions tend to be more severe.
- E ALTITUDE: Height above sea level on Earth
- W ALTITUDINAL MIGRATORS: Animals that move seasonally from higher or lower elevations to the opposite.
- E ALTYN FORMATION: Oldest Precambrian Belt formation; tan, white, and full of sand grains.
- H ANIMAL: Living thing that gets energy from eating other living things.
- W ANTI-FREEZE: Substance that lowers the temperature at which something normally freezes or retards or prevents freezing.
- E APPEKUNY: Rock formation that is 3500 ft thick green mudstone. Next above the Altyn formation.
- H AQUATIC: Growing, living in, or frequenting the water.
- W ATMOSPHERE: The layer of gases that surround the earth.
- E AVALANCHE: A large mass of snow or ice that suddenly falls from a mountain slope.
- W AXIS: A line about which a rotating body turns.
- F BARK: Tissue covering stems, branches, and roots of a tree or shrub
- E BEDROCK: Continuous solid rock that forms the Earth's surface.
- H, F BIODIVERSITY: The variety of different species in an area.
- H BIOME: A large geographic area with somewhat uniform climatic conditions.
- W BIRD CROP: A pouch in bird's throat: a pouch in the throat of many birds in which they store food before regurgitating it to feed their young.
- P BLACKFEET: Native American tribe whose traditional life was based on nomadic buffalo hunting.
- P BLACKFOOT CONFEDERACY: A Native American confederacy located on the northern Great Plains, composed of the Blackfeet, Blood, and Pikuni tribes.
- W BLIZZARD: A violent snowstorm with winds blowing at a minimum speed of 35 miles (56 kilometers) per hour and visibility of less than one-quarter mile (400 meters) for three hours.
- F BROAD-LEAVED TREE: Tree with wide-bladed leaves. A flowering tree.
- W BUD: A small protuberance on the stem or branches of a plant, containing the rudiments of future leaves, flowers, or stems; an undeveloped branch or flower.
- W CACHE: A hiding place used especially for storing provisions (food).
- F CAMBIUM: Thin, nutrient rich, layer of living cells beneath a tree or shrub's bark.
- W CAMOUFLAGE: To conceal by the use of disguise or by protective coloring or garments that blend in with the surrounding environment.
- F CANOPY: Layer formed by the leaves and branches of the forest's tallest trees.
- F CARBON DIOXIDE: One of many gases in Earth's atmosphere. Carbon dioxide is produced by combustion and respiration
- H CARNIVORE: An organism that eats other animals. A meat-eater.
- E CENOZOIC: Present era, beginning 65 million years ago, the ascent of mammals.
- H CHANGE: To make different.
- FE CHARRED FUEL: Fuel that is partly burned, with its outside surface blackened
- S CHEMIST: A person who studies the structure and composition of substances and how they interact (chemistry) or uses chemistry in his or her work
- W CHINOOK: Indian word for "snow eater" that refers to a warm dry wind that descends from the eastern slopes of the Rocky Mountains, causing a rapid rise in temperature.



## 2 Glacier National Park

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- W CHIONEUPHORE: Organisms that have adjusted their life to winter and can survive although they have not developed any special adaptations for survival.
- W CHIONOPHILE: Organisms that possess definite adaptations for life in a winter environment.
- W CHIONOPHOBE: Organisms unable to adjust to live in the nivean environment.
- E CHLORITE: Generally green or black secondary mineral caused by metamorphic alteration
- E CIRQUE: Bowl-shape carved from a mountain mainly by ice plucking and frost action.
- H CLASSIFICATION: A system that groups organisms based on similarities and differences of their traits.
- E CLIMATE CHANGE: Change in the world's climate, naturally or unnaturally caused.
- E, W CLIMATE: The meteorological conditions, including temperature, precipitation, and wind, which characteristically prevail in a particular region.
- W COCOON: A protective case of silk or similar fibrous material spun by the larvae of moths and other insects that serves as a covering for their pupal stage.
- H COLD BLOODED: Blood temperature is directly influenced by surrounding temps (fishes, reptiles...); poikilotherm.
- FE COMBUSTION: The process of burning; the process of combining a substance with oxygen and a heat source, which produces heat and light
- H, F COMMUNITY: All of the living things that occupy a habitat.
- W CONDENSATION: Change of a substance from the gaseous (vapor) to the liquid state.
- W CONDUCTION: Transfer of heat from one substance to another by molecular collisions, in other words by direct contact (such as heat lost by touching cold solids and liquids).
- P CONFEDERATED SALISH & KOOTENAI TRIBES: Comprised of the Bitterroot Salish, the Pend d'Oreille and the Kootenai tribes. The Flathead Reservation of 1.317 million acres in northwest Montana is their home now but their ancestors lived in the territory now known as western Montana, parts of Idaho, British Columbia and Wyoming.
- F CONIFER: A cone-bearing tree.
- H CONSUMER: Uses the producers for its food source.
- W CONSTRUCTIVE METAMORPHISM: The process in which ice crystals favorably situated in the snowpack grow by accretion of water onto their surfaces.
- E, W CONTINENTAL DIVIDE: The line of summits or passes of the Rocky Mountains, separating streams flowing west toward the Pacific Ocean from those flowing toward south toward the Gulf of Mexico and north toward the Hudson Bay.
- S CONTROL: The aspects of an experiment that are held constant so they will not affect the experiment's outcome; a standard of comparison against which scientists check the outcome of experimental treatments.
- FE, W CONVECTION: 1) Transfer of heat by a moving fluid (such as wind or water passing over object). 2) The diffusion of heat through a liquid or gas by means of molecular motion. Because gases expand when heated, much of the heat from a fire diffuses upward from a burning surface through the process of convection.
- FE CROWN FIRE: Fire that spreads in the crowns of trees and shrubs. Crown fires are usually ignited by surface fire. They are common in coniferous forests and chaparral-type shrublands.
- P CROWN OF THE CONTINENT ECOSYSTEM: The ecosystem that is centered around Waterton-Glacier International Peace Park and stretches along the axis of the Rocky Mountains between the Canadian Central Rockies (Banff-Yoko-Kootenay Complex) and the Greater Yellowstone Ecosystem. It includes all the living and non-living components and is known for its tremendous biodiversity.
- P CULTURE: Patterns, traits, and products of a particular period, class, community, or population.
- W DAY LENGTH: Duration of the period from sunrise to sunset.
- H, F DECAY: Decomposition, rot.
- F, W DECIDUOUS: Shedding or losing foliage at the end of the growing season; A tree that loses its leaves in the fall (examples are aspen, larch, birch, cottonwood).
- H, F DECOMPOSE: The mechanical or chemical breakdown of dead organic material into inorganic materials.
- H, F DECOMPOSER: When dead things get eaten by bacteria, fungus, insects, and other organisms and get broken down into smaller pieces.
- E DEPOSITION: The process in which rock moved by water, wind, or ice is dropped in a new place.
- W DEPTH HOAR: Brittle ice crystals, often hollow and cuplike, formed in warmer layers of the snow pack as a result of continuous vapor loss from their surfaces.
- W DESTRUCTIVE METAMORPHISM: The process in which new-fallen snow crystals lose their delicate structure



- by a redistribution of internal energy, and coalesce into rounded ice grains.
- F DICHOTOMOUS: Divide into two parts (deciduous vs. coniferous).
- FE DISPERSION: The process of scattering or spreading, often used to refer to the way in which smoke disperses through the atmosphere.
- H, F DIVERSITY: Variety.
- F, W DORMANT: Not actively growing; in an inactive state, when growth and development slow or cease, in order to survive adverse environmental conditions. Example, trees are dormant in the winter.
- F DUFF: Partially decomposed organic matter (recently living organisms) lying beneath the litter (dead plant material) layer and above the mineral soil.
- E EARTH SCIENCE: Any of various sciences, as geography, geology, or meteorology, that deal with the earth, its composition, or any of its changing aspects.
- W EARTH'S AXIS: The Earth's axis is an imaginary line drawn through its center from its North Pole to its South Pole.
- E EARTH'S CRUST: The outer part of the Earth. The visible surface.
- W ECOLOGY: Study of the interrelationships between living things and their environment.
- H ECOSYSTEM: All the living and nonliving things that are found in an area.
- E, W ELEVATION: The height to which something is elevated above a point of reference such as the ground or sea level; Height above sea level, expressed in meters or feet.
- E EMPIRE FORMATION: A thin, gray to green, 500 ft. thick formation that rests on top of the Grinnell Formation.
- H ENDANGERED: Plant or animal in danger of extinction throughout all or a significant portion of its range.
- H, F ENERGY: The ability to cause motion or change.
- H, F ENVIRONMENT: The surroundings that an organism lives in.
- F EPIPHYTE: Plant that derives moisture and nutrients from the air and rain; usually grows on another plant but not parasitic on it.
- E EROSION: The movement of weathered rock by water, wind, or ice.
- E ERRATIC: A glacially transported rock fragment.
- F, W EVERGREEN: A tree, shrub, or plant having foliage that persists and remains green throughout the year; most coniferous trees are evergreen.
- S EVIDENCE: Proof; facts that support an idea.
- S EXPERIMENT: A scientific investigation that tests a hypothesis.
- H EXTINCT: Removed from existence. Gone from the planet forever.
- E FAULT: A break in rock which the opposite sides have been relatively displaced.
- F FERN: Flowerless, seedless vascular plants having roots, stems, and fronds and reproducing by spores.
- FE FIRE MANAGEMENT: Actions to prevent wildland fires, suppress them, or manage them for particular purposes, like improvement of wildlife habitat.
- FE FIRE REGIME: The pattern of fire occurrence, size, and severity in an area or ecosystem. An ecosystem's fire regime is like a story about the forces of fire, climate, human use, and species adaptations—all interacting to affect the ecosystem over thousands of years.
- FE FIRE SCAR: A wound at the base of a tree caused by heat damage to the cambium. Fire scars are usually shaped a little bit like triangles. They are often blackened in the center and pitchy around the edges. The tree continues to grow, so its bark gradually curls over the edges of the scar and sometimes buries the scar completely.
- FE FIRE TRIANGLE: The three things necessary for fire: fuel, oxygen, and a source of heat.
- FE FIRESTORM: A wildland fire that results from violent convection. This is caused by a very large, intense fire or many fires that burn together. A firestorm usually produces a towering smoke column, spot fires, and spinning, tornado-like winds.
- FE FLAMMABILITY: The ease with which something will start on fire.
- P FLATHEAD INDIAN RESERVATION: This reservation is home to the Confederated Salish and Kootenai Tribes.
- E FOLDING: Bending in layers of rock.
- H, F FOOD CHAIN: Transfer of food energy from the sun to plants and then through a series of animals, with repeated eating and being eaten.
- H, F FOOD WEB: An interlocking pattern of food chains.
- F FORBS: Low-growing, herbaceous plants (have leaves and stems that die at the end of the growing season). Important part of wildlife habitats.



- S FORCE: A push or a pull.
- F FOREST FLOOR: Layer of decomposing material that covers the soil in a forest.
- H, F FOREST: Habitat type in which trees are the most common member.
- FE FORESTER: A person who studies forests and is concerned with their management, use, and enjoyment.
- E FOSSIL: The remains or traces of an organism that lived long ago.
- W FRONT RANGE: The Front Range is on the eastern edge of the Rocky Mountains and on the western edge of the Great Plains.
- FE FUEL MOISTURE: The amount of moisture in fuels, expressed as a percent or fraction of oven dry weight. Fuel moisture is the most important fuel property controlling flammability.
- FE FUEL: The living and dead vegetation that can be burned in a wildland fire. Fuel includes dead woody material, leaves of trees and shrubs, litter, duff, grasses, and other plants.
- F FUNGI: Consumer organism that decomposes living and dead organisms by digesting their tissues and absorbing the nutrients they contain; Mushrooms and mold are examples.
- F GALL: Abnormal growth on plants caused by many things (insects, chemicals, bacteria...).
- E GEOLOGY: Science of the Earth.
- F, W GERMINATE: To begin to sprout or grow; To grow into a plant or individual, as a seed, spore, or bulb.
- E GLACIAL FLOUR: Tiny particles weathered from mountains by glacial forces.
- E, W GLACIER: A body of ice (created when snow crystals change under pressure) flowing on a land surface; A body of ice that flows under its own mass due to gravity.
- E GLOBAL WARMING: An increase in the earth's average atmospheric temperature that causes corresponding changes in climate.
- H, GRASSLAND: Habitat type where grasses are the most common member.
- E GREENHOUSE GAS: Any of the atmospheric gases that contribute to the greenhouse effect (CO<sub>2</sub>, methane, ozone, fluorocarbons)
- E GRINNELL FORMATION: 2500 ft deep of red mudstone. Lies above the Appekunny mudstone.
- F GROUND COVER: Plants and shrubs in a forest, as a whole.
- FE GROUND FIRE: Fire that burns in dead, decomposing fuels on the forest floor, mostly by smoldering combustion. Fires in duff, peat, dead moss and lichens, and punky wood are typically ground fires.
- W GUARD HAIRS: Coarse hairs that form the outer fur and protect the underfur of certain mammals.
- H HABITAT: A plant or animal's home.
- E HANGING VALLEY: A tributary stream, made by glaciers, whose valley floor lies above that of the valley of a main stream.
- F HEARTWOOD: Dead central woody core of a tree trunk. Provides structure to tree.
- FE HEAT: A form of energy that raises the temperature of matter.
- E HELENA FORMATION: 3,300 ft thick at its thickest part, this formation makes up many of the noticeable peaks in the park. Dark gray to tan, and heavily jointed. Rests on top of the Empire Formation.
- E HEMATITE: Black to brick-red mineral, chief ore of iron. Found in red Grinnell formation.
- W HEMISPHERE: Either the northern or southern half of the earth as divided by the equator or the eastern or western half as divided by a meridian.
- H, F HERBIVORES: Animals that eat only plants.
- H HIBERNATE: Sleeping through the winter. An adaptation to survive winter.
- W HIBERNATION: A physical state where an animal's body functions slow down in order to conserve energy through a season of no food, water, and cold temperatures.
- S HISTOGRAM: A graph of the frequency distribution of observations.
- W HORMONES: Chemical messengers sent throughout the body.
- W HYPOTHALMUS: That region of the brain which regulates temperature-control mechanisms in the body.
- W HYPOTHERMIA: A condition in which the body core temperature falls below that considered normal for a warm blooded animal.
- E HORN: A bare, pyramid-shaped peak left standing where glacial action in cirques has eaten into it from three or more sides.
- W HUDDLE: To crowd together, as from cold or fear.
- F HUMUS: The decomposed residue of plant and animal tissues.
- E ICE AGE: A cold period marked by episodes of extensive glaciation alternating with episodes of relative warmth.
- E ICE SHEET: A broad glacier of irregular shape, generally blanketing a large land surface.



- E IGNEOUS ROCK: Rock formed by solidification of molten magma materials.
- W INSOLATION: Incoming solar radiation.
- FE INSULATION: 1) Materials which retard the flow of heat (fat, fur, feathers, etc.). 2) Material that absorbs heat slowly and releases it slowly, so it can be used to protect an object from rapid heating or cooling
- E INTERDEPENDENCE: when 2 or more living things in nature need one another to survive.
- E INTERRELATIONSHIP: the relationships between plants and plants, plants and animals, and animals and animals.
- E INTERGLACIAL PERIOD: Time between ice ages. Current era started 11,400 years ago.
- P INTERNATIONAL BIOSPHERE RESERVE: One location in a network of protected samples of the world's major ecosystem types devoted to conservation of nature and scientific research in the service of man. It provides a standard against which the effect of man's impact on his environment can be measured.
- P INTERNATIONAL PEACE PARK: A protected area that celebrates neighborly relations between two or more nations and recognizes that political boundaries are only recognized by humans and ecosystems are continuous across boundaries. Waterton-Glacier International Peace Park was the world's first international peace park and has inspired many other countries to create shared protected areas. Also called trans-boundary protected areas in many parts of the world.
- W INTRANIVIAN: Within the snow.
- E ISOTOPE: One of two or more atoms having the same atomic number but different mass numbers.
- P KOOTENAI: There are six bands of the Kootenai Nation, an area that later was drawn as North Idaho, northwest Montana and southeastern British Columbia. Their lifestyle was semi-nomadic, sustained through hunting, fishing and gathering. Anthropologists classify the Kootenai Tribe as belonging to the "basin culture. In the 1855 Hellgate Treaty, these Tribes ceded to the United States all the land they occupied or claimed in exchange for reservations.
- FE LADDER FUELS: Shrubs and small trees that fill the space between the forest floor and tree crowns with flammable material, so a fire might be able to "climb the ladder" from surface fuels into the treetops.
- E LANDFORM: A natural structure or feature on Earth's surface.
- W LATITUDE: 1) Distance north or south of the Equator on Earth's surface. 2) The angular distance north or south of the earth's equator, measured in degrees along a meridian, as on a map or globe.
- F LEAF: Main location of photosynthesis in plants.
- F LEAF LITTER: Top layer of the forest floor, not yet rotten.
- W LEAF SCARS: Where leaves were attached, can be found on older stems transformed to appear superficially like lenticels.
- P LEAVE NO TRACE: Set rules of how to use the outdoors in order to protect it for future generations.
- E LEWIS OVERTHRUST FAULT: Action that folded older rock above younger rock in the northwest United States.
- F LICHEN: 1) Algae and fungus growing together in a symbiotic relationship. 2) A lichen is a symbiotic relationship between a fungus and an alga. The composite organism behaves as a single independent organism.
- H, F LIFE CYCLE: Continuous sequence of changes undergone by an organism.
- E LITHIFICATION: Rock making. Conversion of sediments into sedimentary rocks.
- E LITHOSPHERE: The outer zone of the solid Earth.
- E LITTLE ICE AGE: The period from 1400 to 1800, characterized by expansion of mountain glaciers and cooling of global temperatures, especially in the Alps, Scandinavia, Iceland, and Alaska.
- H, F LIVING: Not dead. Alive (growing, eating, reproducing...)
- E MAGMA: Molten lava beneath the Earth's surface.
- S MAGNIFYING GLASS: Tool used to see things closer up.
- FE MANAGEMENT GOALS: The conditions desired for a wildland area in the future.
- FE MANAGEMENT PLAN: The methods to be used for meeting management goals.
- E MESOZOIC: 230-65 million years ago. Appearance of flowering plants and appearance and disappearance of dinosaurs.
- W METABOLIC RATE: The amount of energy expended in a given period.
- E METAMORPHIC ROCK: Formed within the Earth's crust by transforming the rock by heat and pressure.
- S METEOROLOGIST: A person who studies weather and changes in the atmosphere. Meteorologists sometimes use their skills to forecast weather and fuel conditions that affect wildland fire behavior.
- H MIGRATE: To change location periodically, especially by moving seasonally from one region to another. Traveling distances to find better food sources. An adaptation to survive winter.



- E MINERAL: A natural compound that is formed through geologic processes.
- FE MOISTURE REQUIREMENT: The amount of moisture needed for an organism to survive
- E MORaine: A ridgelike accumulation of debris deposited by glaciers.
- H MOSAIC: Differences in land cover appearances (burned vs. unburned areas).
- F MOSS: 1) Any tiny, leafy-stemmed, flowerless plant, reproducing by spores and growing in tufts, sods, or mats on moist ground, tree trunks, rocks, etc. 2) Any of various green, usually small, nonvascular plants of the class Musci of the division Bryophyta.
- E MOUNTAIN BUILDING: The creation of highlands by large-scale changing of rocks in the Earth's crust.
- H, E MOUNTAIN: Any land mass that stands much higher than its surroundings.
- P NAPI: Blackfoot word, "Old Man" The arranger and trickster.
- P NATIONAL FOREST: Forested land owned, maintained, and preserved by the U.S. government.
- P NATIONAL PARK: An area of scenic beauty, historical importance, or the like, owned and maintained by a national government for the use of the people.
- P NATIVE AMERICAN: The first people to inhabit the Americas. Often called "Indians." Locally, the Salish, Kootenai, and Blackfeet tribes have lived in and around Glacier National Park for many generations and regard many sites in Glacier as sacred.
- F NATIVE PLANT: Species of plants and animals that have lived in an area for a very long time.
- S NATURAL RESOURCE: Materials in the environment that are useful to people.
- W NIVEAN: Area above the snow.
- H, F NON-LIVING: Not alive and never was alive.
- F NON-NATIVE PLANT: Not originally found in this area.
- F NURSE LOG: Dead and downed log providing suitable growing conditions for new plant life.
- H, F NUTRIENT: Substances that an organism needs in order to survive and grow.
- S OBSERVATION: Something that you note using your senses.
- F OLD-GROWTH FOREST: Very old forest; OWLS (Old trees, Woody debris, Layers of vegetation, Snags)
- H OMNIVORE: Animal that eats both plant and animal material.
- H, F, W ORGANISM: Any living thing.
- W OVER BROWSING: To feed on leaves, young shoots, and other vegetation; graze to an extent that re-moves all the vegetation.
- W OVER WINTER: To pass or spend the winter in an area. To remain alive through the winter
- H, W OX-BOW LAKE: A curved lake occupying a cutoff meander loop.
- FE OXYGEN: One of many gases in Earth's atmosphere. Oxygen is produced by photosynthesis and is used in both combustion and respiration.
- E PALEOZOIC: 570-230 million years ago. Appearance of fish, insects and reptiles.
- PEND d'OREILLES: Also known as the Kalispel, are a tribe of Native Americans who lived centered around Lake Pend Oreille, as well as the Pend Oreille River, although some of them live spread through Montana and eastern Washington. It is one of the three tribes of the Confederated Salish and Kootenai Tribes of the Flathead Nation.
- W PERENNIALS: A plant that lives more than one growing season.
- F PHLOEM: Outer layer of cells produced by a woody plant's cambium. Carry nutrients from leaves to other parts of the plant.
- W PHOTOPERIOD: The amount of light received daily. Total length of time between sunrise and sunset.
- F PHOTOSYNTHESIS: The process of using the energy in sunlight to make food from water and carbon dioxide.
- F PIONEER SPECIES: Earliest plant species to show up in forest succession, usually grasses.
- E PLASTIC FLOW: A continuous and permanent change of shape in any direction without breakage.
- FE PM-2.5, PM-10: The weight (in micrograms) of smoke particles less than 2.5 (or 10) microns in diameter per cubic meter of air.
- F POLLINATE: Type of plant reproduction involving the transfer of pollen.
- H, F POPULATION: The number of individuals of a particular species living together in a certain location.
- E PRECAMBRIAN: Beginning of Earth's history.
- W PRECIPITATION: Falling moisture: snow, rain, hail, sleet... Precipitation is the result of water vapor that has condensed and formed clouds.
- H, W PREDATOR: An animal or other organism (such as a carnivorous plant) that hunts and kills other organisms for food in an act called predation.



- FE PRESCRIBED FIRE: A wildland fire ignited by managers to meet particular goals. A lot of planning is needed to get ready for a prescribed fire. The people who use prescribed fire usually work closely with neighbors and safety experts to make sure the fire will meet their goals safely.
- H, W PREY: An animal that is hunted, caught, and eaten by another animal for food.
- H, F PRODUCER: Green plants which are able to make food from sunlight.
- W PTARMIGAN: Bird that turns white and remains above treeline throughout winter.
- W RADIATION: The propagation of energy through space. The energy received by or emitted from a radiating object. The leading cause of heat loss - occurs when heat is released directly from the body's surface - can be prevented by adequately covering the body.
- E RADIOMETRIC DATING: Determining the age of Earth's materials by using radioactive elements.
- E RAIN SHADOW: An area on the leeward side of a mountain barrier that receives little rainfall.
- FE RANGE MANAGER: A person who manages grasslands or areas containing a lot of grass. Range managers often plan and control grazing of grasslands.
- S RENEWABLE RESOURCE: Living resources, such as plants and animals, which have the capacity to renew themselves.
- H, F REPRODUCE: To make more organisms of the same kind.
- H, W RESIST: Staying in an area and coping with conditions. An adaptation to survive winter.
- W RESISTANCE: Staying and enduring challenges of winter and resisting its stresses.
- S RESOURCE: Something that is used with in an environment and upon which people have therefore placed or as signed value. An example would be water.
- H, F RESPIRATION: 1) Breathing. 2) The process in which living cells obtain energy by breaking down carbon compounds and combining them with oxygen, releasing carbon dioxide and water.
- E ROCK CYCLE: The creation, destruction, and alteration of rocks that occurs over and over again.
- E ROCK FLOUR (SEE GLACIAL FLOUR): Fine sand and silt produced by crushing and grinding in a glacier.
- W ROOST: A place with perches for fowl or other birds or to rest or sleep on or as if on a perch or roost.
- F ROOT: Underground portion of a plant that absorbs moisture, obtains nutrients from the soil, and provides support.
- W RUT: An annually recurring condition or period of sexual excitement and reproductive activity in male deer.
- FE SAFETY ZONE: An area around a building that contains little fuel and is large enough to protect the building from wildland fire
- P SALISH: Salish Elders say that they, and many other tribes, were placed on this earth as one Salishan-speaking people. but they separated thousands of years ago into different bands. These individual bands then became separate tribes in different parts of the Northwest. eventually speaking different dialects of the Salish language. Their migration route extended from British Columbia to the present-day states of Washington, Idaho, MT and beyond.
- F SAPLING: A young tree.
- H SCAVENGER: An organism that feeds on garbage or dead animals.
- S SCIENCE: A process of investigation.
- W SEASON: One of the four natural divisions of the year, spring, summer, fall, and winter, in the North and South Temperate zones. Each season, beginning astronomically at an equinox or solstice, is characterized by specific meteorological or climatic conditions.
- E SEDIMENT: Particles of rocks.
- E SEDIMENTARY ROCK: Rock formed by tightly compacted sediments.
- F SEED: Offspring of a plant. Creates new plants.
- F SEEDLING: Young plant grown in a nursery, not yet 3 ft. tall.
- H SENSES: Touch, taste, hearing, smell, sight.
- FE SEROTINY: A property of tree cones, in which their scales are sealed by resin and they cannot release seeds until the resin is melted by heat
- F SHRUB: Woody plant smaller than a tree, many small branches, no trunk; a bush.
- W SNOW METAMORPHISM: Changes that snow undergoes when pressure or other factors affect the crystals.
- W SNOW PACK: The accumulated depth of snow.
- W SNOW WATER EQUIVALENT (SWE) : The amount of water that would be obtained if the snowpack were melted, usually expressed in inches of water.
- F SOIL: The covering of the Earth's surface. Consists of rock particles and decayed organisms.
- W SOLAR INSOLATION: The amount of sunlight striking the earth's surface.



- H, F SPECIES: One kind of living thing; a group of organisms of the same kind that can mate and produce offspring like themselves.
- FE SPOT FIRE: A new fire that starts when burning material is carried by wind or conection ahead of an existing fire.
- F STEM: Part of the plant that holds leaves and flowers up and connects them to roots.
- E STRIATIONS: Scratches and grooves on bedrock surfaces, caused by grinding of rock against rock during move ment of glacier ice.
- E STROMATOLITE: Calcareous fossil structure built by marine algae and having a rounded form.
- H, F SUB-ALPINE: Transitional habitat zone between the valley floor and the alpine. Characterized by varying weather conditions dependant on elevation.
- W SUBNIVEAN: Area underneath the snow next to the ground.
- H, F SUCCESSION: 1) The process of change in a community. 2) The process of change in a community. After a se vere fire, this is the way succession often works: Grasses and wildflowers may be the most obvious plants for a few years; then shrubs dominate, and finally trees. The first tree species to occur may be replaced by other species as succession continues.
- W SUPRANIVEAN: On top of the snow.
- FE SURFACE FIRE: A fire that burns in the litter, duff, grasses, and wildflowers on the forest floor but does not burn in the crowns of trees.
- H TAME: An animal that has been brought from wildness into a domesticated state.
- E TECTONIC PLATES: Large slabs of rock covering Earth's crust that fit together like a puzzle.
- FE, W TEMPERATURE: Hotness or coldness of an object; Temperature is a measure of the average heat or thermal en ergy of the particles in a substance.
- S THEORY: An explanation or model that has been confirmed by experiments and observations.
- FE THERMOCOUPLE: A tool used to measure temperature. A thermocouple is a junction of two metals whose volt age varies with temperature.
- FE THERMOMETER: A tool used to measure temperature.
- H THREATENED SPECIES: Species who will likely become endangered in the near future.
- H THREATENED: A species present in its range but in danger of becoming extinct.
- H, W TOLERATE: To put up with, or resist, an action;
- S TOOL: A device used to make a job easier.
- W TORPOR: A short-term condition physiologically similar to hibernation in which metabolic rate and body tem perature may be reduced to conserve energy.
- W TRAILING: Following in tracks made by a strong lead animal.
- F TRANSPIRE: Give off water vapor through the surface (the body, or leaves).
- F TREE: A woody plant that, when fully grown, has a large central stem called a trunk.
- W TREE CAVITIES: Holes in trees that can be used by many organisms for shelter.
- F TREELINE: Elevation above which the climate is too harsh to allow trees to grow.
- W TREE WELL: The area around the base of a tree.
- H, F TUNDRA: Regions where it is very cold and there are almost no trees. This region has permafrost (soil that is at or below freezing for two or more years).
- W UNDER COAT: A covering of short hairs lying underneath the longer outer hairs of an animal's coat.
- F UNDERSTORY: Layer of plants growing under another higher layer of plants and brush under forest trees.
- U-SHAPED VALLEY: Valley created by the weathering of glaciers.
- E VALLEY: An elongated lowland between ranges of mountains, hills, or other uplands, often having a river or stream running along the bottom.
- E V-SHAPED VALLEY: Valley created by the weathering of rivers and streams.
- E, W WATERSHED: 1) The region of land whose water flows into a specified body of water. The specified body of wa ter can be of varying sizes. For example, you could refer to the Flathead River watershed or to the much larger, Pacific Ocean watershed. 2) An area of land that drains down slope to the lowest point. The water moves through a network of drainage pathways, both underground and on the surface.
- P WATERTON-GLACIER: 1st International Peace Park in 1932.
- E WEATHERING: The breaking down, dissolving, and wearing away of rock.
- H WILD: Dependant on nature for survival. Not tame.
- H WILDERNESS: See "wildland."
- FE WILDLAND FIRE: Any fire, other than prescribed fire, occurring in a wildland

