

APPENDIX C: FCAT 2.0 SCIENCE ITEM WRITER GLOSSARY GRADE 5

The following glossary is a reference list provided for the item writers and is **not** intended to comprise a comprehensive vocabulary list for students. The definitions are not intended to provide a thorough scientific definition of the terms. Some definitions are limited by the extent of knowledge intended for the grade level. The terms and definitions in this glossary are specific to the Florida NGSSS in science for grades 3 through 5 and the content assessed on FCAT 2.0 Science.

Absorb—To take up and store energy without reflecting or transmitting that energy.

Adaptation—A characteristic of an organism that increases its chances of survival in its environment.

Analyze—To examine methodically by separating into parts and studying their interrelatedness.

Asteroid—A rocky or metallic object that orbits the Sun and is much smaller than a planet.

Attraction—A term used to describe the electric or magnetic force exerted by oppositely charged objects or to describe the gravitational force that pulls objects toward each other.

Balanced forces—Forces that are equal in size but opposite in direction. See also force and unbalanced forces.

Behavior—A plant or animal action, reaction, or activity that occurs in response to stimuli (e.g., gravity, light, temperature).

Carnivore—An animal that obtains nutrients from eating other animals.

Characteristic—A feature, quality, property, or trait of an object or organism.

Chemical change—Process by which substances are changed into different substances with different properties.

Classify—To arrange in a specific order or group by categories based on similarities.

Cleavage—A property used to describe how a mineral breaks apart along smooth surfaces.

Climate—The average pattern of weather that occurs in a certain location over many years.

Comet—An object made of rock, ice, dust, and gas that revolves around the Sun.

APPENDIX C: FCAT 2.0 SCIENCE ITEM WRITER GLOSSARY GRADE 5

Community—Populations of different species of organisms living together in the same geographic area.

Complete metamorphosis—Type of insect development characterized by the presence of a larval stage with different feeding habits.

Conclusion—A statement that tells what an investigation showed, based on observations and data.

Condensation—The process by which water is changed from a gas (water vapor) to a liquid; a stage of the water cycle.

Conduct—To transmit heat, sound, or electricity through a medium.

Consumer—An organism in a food chain that obtains nutrients from producers or other consumers; consumers may be herbivores or carnivores.

Control group—A group in a scientific experiment that serves as a reference for comparison to the experimental group; a group that is untreated by the factor being tested.

Data—Measurements or observations collected and recorded in an experiment or investigation.

Ecosystem—All the living and nonliving things that interact with each other in an environment.

Endangered species—A species whose population is so small that it is in danger of extinction.

Environment—An area that includes all living organisms and the surrounding physical features such as air, water, soil, weather, and landforms.

Erosion—The process by which rock, soil, and other weathered earth materials are moved from one place to another.

Evaporation—The process by which water is changed from a liquid to a gas (water vapor); a stage of the water cycle.

Experiment—A scientific test or procedure that is carried out under controlled conditions to answer a scientific question.

Extinct species—A species that no longer exists.

Fertilization—The process by which the female reproductive cell (egg) is united with the male reproductive cell (sperm).

APPENDIX C: FCAT 2.0 SCIENCE ITEM WRITER GLOSSARY GRADE 5

Food chain—A diagram representing the transfer of energy from the Sun through producers and a series of consumers.

Force—A push or a pull that one object exerts on another object with or without direct contact (e.g., friction, gravity). See also balanced forces and unbalanced forces.

Friction—A force that opposes motion through direct contact.

Germination—The process by which plants begin to grow from a seed or a spore.

Hardness—A property of a mineral that describes how easily it can be scratched.

Hemisphere—Half of Earth (i.e., Northern, Southern, Eastern, Western).

Herbivore—An animal that obtains nutrients only from plants.

Humidity—A measure of the amount of water vapor in the air.

Igneous rock—A type of rock that forms from cooled magma or lava.

Incomplete metamorphosis—Type of insect development characterized by the similar appearance of pre-adults and adults.

Inference—An explanation based on evidence that is not directly observed.

Inherited trait—A trait or characteristic that is passed from parent to offspring.

Insulator—A material used to reduce or prevent the transfer of electricity, heat, or sound.

Invertebrate—An animal that lacks a backbone.

Investigation—An organized scientific study of the natural world that may include making systematic observations, asking questions, gathering information, analyzing data, summarizing results, drawing conclusions, and/or communicating results.

Larva—An early stage in the life cycle of an organism that will undergo complete metamorphosis.

Life cycle—The stages of an organism's growth and development.

Luster—A property of a mineral that describes how it appears when it reflects light.

Mass—The amount of matter a substance or object has.

APPENDIX C: FCAT 2.0 SCIENCE ITEM WRITER GLOSSARY GRADE 5

Matter—Anything that takes up space and has mass.

Mechanical energy—A type of energy an object has due to its motion or position.

Metamorphic rock—A type of rock that is formed over time from existing rock due to extreme pressure and/or heat.

Mineral—A naturally occurring inorganic solid with a distinct chemical composition and crystalline structure.

Moon—A natural object that orbits a planet.

Nutrient—A substance that an organism needs to survive and grow.

Nymph—A pre-adult insect undergoing incomplete metamorphosis.

Observation—Information about the natural world gathered through the senses and/or scientific instruments.

Omnivore—An organism that obtains nutrients from both plants and animals.

Organism—A living thing.

Ovary—The female reproductive organ that produces and contains egg cells.

Physical change—A change of a substance from one form to another without a change in its chemical properties.

Pistil—The female reproductive structure of a flowering plant.

Pitch—The relative frequency (high or low) of a sound as perceived by a listener.

Planet—A large body in space that orbits a star and does not produce its own light.

Polar zone—A climate zone characterized by very little precipitation and extremely cold temperatures.

Pollen—The fine dustlike powder that contains the male reproductive cells of seed-bearing plants.

Pollinate—To transfer the pollen from the male reproductive structure to the female reproductive structure to fertilize flowering plants.

APPENDIX C: FCAT 2.0 SCIENCE ITEM WRITER GLOSSARY GRADE 5

Population—All members of the same species living together at the same time in the same area.

Precipitation—A form of water (e.g., hail, rain, sleet, snow) that condenses in the atmosphere and falls to Earth’s surface.

Predator—An organism that kills and eats other organisms (prey).

Predict—To state what one thinks will happen under certain conditions based on data or observation.

Prey—An organism that is killed and/or eaten by another organism (predator).

Producer—An organism that produces its own food.

Pupa—A stage in the life cycle of an insect that occurs between larva and adult.

Reflect—To bounce light, sound, or heat off of a surface.

Repel—To force away or apart.

Reproduction—The process of making more organisms of the same kind.

Revolution—The motion of one object around another object.

Rotation—The turning of an object on its axis.

Sedimentary rock—A type of rock formed from layers of sediment.

Soil—The loose top layer of Earth’s surface made of weathered rock and organic matter.

Solar system—A system of planets and other bodies that orbits a star.

Species—A group of the same kind of organisms that can mate and produce offspring that can reproduce.

Speed—The distance traveled by an object in a given amount of time.

Spore—A seedlike structure that produces a new plant (e.g., ferns or mosses).

Stamen—The male reproductive structure of a flowering plant.

Star—A large object in space that is made of gas and produces its own light.

APPENDIX C: FCAT 2.0 SCIENCE ITEM WRITER GLOSSARY GRADE 5

State of matter—The form matter can take (e.g., solid, liquid, gas).

Streak—The color of the powder of a mineral when it is rubbed on a streak plate.

Technology—The use of scientific knowledge and processes to solve practical problems.

Temperate zone—A climate zone located between the tropics and the polar circles generally characterized by moderate temperatures rather than extremely hot or cold temperatures.

Testable (scientifically testable)—A term used to describe a question that can be answered through an experiment or observation.

Texture—A physical property of a solid used to describe its surface.

Trials—Multiple sets of measurements or observations in a scientific investigation.

Tropical zone—A climate zone near the equator characterized by warm temperatures.

Unbalanced forces—Forces that are unequal in size and may or may not be opposite in direction. See also balanced forces and force.

Valid—A term used to describe the certainty of data or results of an investigation or experiment.

Variable—An event, condition, or factor that can be changed or controlled in order to study or test a hypothesis in a scientific experiment.

Vertebrate—An animal that has a backbone.

Volume—The amount of space an object or substance occupies.

Water cycle—The continuous movement of water through the environment by evaporation, condensation, precipitation, and runoff.

Water vapor—The gas state of water.

Weather—The condition of the atmosphere at a given time and place.

Weathering—The process by which rocks and other surfaces are broken down.

Weight—A measure of the force of gravity on an object.