

## **Glossary of terms used in the TIDES curriculum**

The definition of the following terms was derived from Webster's II New College Dictionary, 1995 edition with interpretation by the author of this curriculum.

### **Activity 1**

**Aquifer** – a water-bearing rock, rock formation, or group of rock formations.

**Benthic** – the organisms living on the bottom of a sea or a lake.

**Eelgrass** – a submerged aquatic plant of the genus *Zostera*, growing along the North American coast and having narrow grass-like leaves.

**Estuary** – The wide lower course of a river where its current is met by the tides.

**Fauna** – Animals as a whole, especially those of a specific region or period.

**Flora** – Plants as a whole, especially those of a specific region or season.

**Habitat** – The environment in which an organism or biological population usually lives or grows.

**Input** – Something introduced into a system or expended in its operation to attain a result or output.

**Intertidal** - Of, relating to, or being the region between the extremes of high and low tide.

**Nutrient** – Something that nourishes promoting growth and development.

**Ocean** – The entire body of salt water that covers approximately 72% of the earth's surface.

**Open water channel** – Water remaining in the deepest parts of the estuary at a low tide.

**River** – A large natural stream of water emptying into a large body of water, as an ocean or lake, and usually fed along its course by converging tributaries.

**Salinity** – the measurement of the amount of salt in a solution.

**Sub-tidal** – Below the level of the lowest tides.

**Tidal flat** – an area of land flooded and drained periodically by the rising and falling of the ocean often made of muddy or sandy sediment.

**Tidal marsh** – an area of land flooded and drained periodically by the rising and falling of the ocean often dominated by rooted, flowering plants adapted to such conditions.

**Tide** – Periodic variation in the surface level of the oceans and of bays, gulfs, inlets, and tidal regions of rivers, caused by gravitational attraction of the sun and moon, with the lunar effect being more powerful.

**Turbidity** – Suspended or stirred up particles or sediment.

**Watershed** – The region draining into a river, river system, or body of water.

### **Activity 2**

**Aestus** - tide

**Detritus** – Loose fragments, particles, or grains that have been formed by the disintegration of rocks and matter.

**Estuary** – The wide lower course of a river where its current is met by the tides.

**Plankton** – Generally microscopic plant and animal organisms that float or drift in great numbers in fresh or salt water.

**Salinity** – the measurement of the amount of salt in a solution.

**Salt marsh** – an area of land flooded and drained periodically by the rising and falling of the ocean often dominated by rooted, flowering plants adapted to salty conditions.

**Slough** – A depression or hollow, usually filled with deep mud or mire.

**Tide** – Periodic variation in the surface level of the oceans and of bays, gulfs, inlets, and tidal regions of rivers, caused by tide flats

### **Activity 3**

**Desalinization** – To remove salts and other chemicals from saline water, especially sea water.

**Dredging** – Deepening of harbors and waterways to remove sediment through the use of various machines equipped with scooping or suction devices.

**Earthquake** – A series of elastic waves in the crust of the earth, caused by abrupt easing of strains built up along geologic faults and by volcanic action, and resulting in movements in the earth's surface.

**Fish weir** – A fence or barrier placed in a stream to catch or retain fish.

**Float house** – A dwelling built to remain suspended on the surface of a body of water.

**Glacier** – A huge mass of laterally limited, moving ice originating from compacted snow.

**Native** – An animal or plant growing, living, or produced originally in a certain place.

**Subsidence** – To sink to a lower or normal level.

**Toxic** – Harmful, destructive, or deadly.

**Tsunami** – an ocean wave caused by an underwater earthquake or a volcanic eruption.

**Upwelling** – The rising up of cold, often nutrient-rich waters from the ocean depths to the surface.

### **Activity 4**

**Current velocity** – The rate of progress of a body of liquid that has a continuous onward movement.

**Ebb** – To fall back from the flood.

**Elevation** – The height to which something is elevated above a point of reference, as the ground.

**Flood** – An overflowing of water onto normally dry land or in the case of the tides, periodically flooded land.

**Gravitational force** – The action or process of movement toward a source of attraction.

**Head of tide** – The furthest inland point of influence of the flooding tide.

**Intertidal** – Of, relating to, or being the region between the extremes of high and low tide.

**Slack tide** – The peak of high or low tide when the flow of water is stilled and begins to reverse.

**Sub-tidal** – Below the level of the lowest tides.

**Tidal cycle** – One complete period of tidal change including a rising and falling.

**Tidal flow** – Water movement influenced by the tides.

**Tidal prism** – The volume of water transported by the tides during a tidal cycle.

**Tidal range** – The difference between the highest high and lowest low tide.

**Turbidity** – Suspended or stirred up particles or sediment.

### **Activity 5**

**Chart** – A map showing coastlines, water depths, or other data useful to navigation.

**Datalogger** – a device used to automatically collect data for later retrieval.

**Density** – The mass per unit volume of a substance under specified or standard conditions of temperature and pressure.

**Dissolved oxygen** – The gas oxygen which has been passed into solution, usually water.

**Metadata** – Ancillary information about a set of data.

**Parameter** – A fixed boundary or limit.

**Salinity** – the measurement of the amount of salt in a solution.

**Turbidity** – Suspended or stirred up particles or sediment.

### **Activity 6**

**Adaptation** – An often hereditary alteration or adjustment by which a species or individual improves its condition in relationship to its environment.

**Adult** – A fully grown, mature organism.

**Characteristic** – A distinguishing attribute or element.

**Cover** – Underbrush or other vegetation serving as shelter for wild animals.

**Diversity** – Variety or multiformity.

**Ecology** – The relationship between organisms and their environment.

**Habitat complexity** – The degree of variety of structure and form in the environment in which an organism or biological population usually lives or grows.

**Juvenile** – A young animal that has not reached sexual maturity.

**Larvae** – The newly hatched, earliest stage of any of various animals that undergo metamorphosis, differing noticeably in form and appearance from the adult.

**Non-native** – An animal or plant not originating in the place it is currently found, being brought from somewhere else.

**Predator** – An animal that lives by preying on others.

**Prey** – A creature hunted or caught for food.

**Reproduction** – The sexual or asexual process by which organisms generate others of the same kind.

**Survive** – To remain alive or in existence.

### **Activity 7**

**Abundance** – A plentiful amount.

**Depletion** – To lessen or reduce in quantity, value, or effectiveness.

**Exploitation** – Utilization to the greatest possible advantage.

**Habitat** – The environment in which an organism or biological population usually lives or grows.

**Harvest limit** – Restriction on the number or amount of a resource which may be acquired.

**Impact** – To have an effect.

**Management** – The act, manner, or practice of managing, supervising, or controlling.

**Population** – All the organisms that make up a specific group or occur in a specified habitat.

**Quantify** – To measure or express the quantity or amount of.

**Regulator** – One that establishes a principle, rule, or law designed for controlling or governing behavior.

**Reproductive strategy** – An organism's method of reproducing used to ensure that the population will continue to exist.

**Resource** – An accessible supply that can be withdrawn from when necessary.

**Tide** – Periodic variation in the surface level of the oceans and of bays, gulfs, inlets, and

### **Activity 8**

**Data collection** – The process of acquiring information using precise, accurate, and reproducible methods.

**Field equipment** – Durable items, technology, and apparatus used to collect data in the environment being studied.

**Field site** – A particular location or set of locations selected to suit a specific study.

**Protocol** – The plan for a scientific experiment or treatment.

**Scientific inquiry** – A form of study employing the use of scientific method where a hypothesis is developed and tested.

### **Activity 9**

**Analyze** – To separate into elemental parts or basic principles so as to determine the nature of the whole.

**Classification** – To organize or arrange according to class or category.

**Geographic Information System (GIS)** – A technology which employs computer hardware mapping and data software, and imagery to support the analysis, manipulation, and visualization of large data sets.

**Global Positioning System (GPS)** – A technology which employs satellites orbiting the earth to locate specific points on the surface.

**Ground truth** – The process of verifying data collected remotely to ensure accuracy.

**Interpret** – To expound the significance of or to present an explanation.

**Orthographic photo** – A photo taken at a right angle to the surface of the object or subject being photographed. In the case of aerial photography, the photograph is taken at a right angle to the surface of the earth.

**Remote sensing** – Collection of data or imagery using devices operated autonomously or from a distance.

**Resolution** – The fineness of detail that can be distinguished in an image, as on a computer screen or printout.

**Scale** – A system of ordered marks at fixed intervals used as a standard of reference in measurement.

**Spatial** – Of, relating to, involving, or having the nature of space.

### **Activity 10**

**Adaptation** – An often hereditary alteration or adjustment by which a species or individual improves its condition in relationship to its environment.

**Characteristic** – A distinguishing attribute or element.

**Community** – A group of plants and animals living in a particular region under more or less similar conditions.

**Dilution** – The process of thinning or reducing the concentration of.

**Estuarine** – Of, relating to, or occurring in an estuary.

**Gradient** – The maximum rate at which a variable physical quantity changes in value per unit change in position.

**Marine** – Of or relating to the sea.

**Quadrat** – A four-sided frame of a specific length and width used to identify a sampling area.

**Riverine** – Of or relating to a river.

**Sampling area** – The specific plot within which samples are to be measured or collected.

**Species** – A fundamental taxonomic classification category, ranking after a genus and consisting of organisms capable of interbreeding.

**Tidal marsh** – An area of land flooded and drained periodically by the rising and falling of the ocean often dominated by rooted, flowering plants adapted to such conditions.

**Transect** – A sampling line located to cross a specific area of land or water.

**Uplands** – The area of land above the influence of the tides in a watershed.

### Activity 11

**Benthic** – the organisms living on the bottom of a sea or a lake.

**Burrow** – A hole or tunnel dug in the substrate for habitation or refuge.

**Organism** – A plant, animal, fungus, protist, or moneran.

**Sediment** – Finely divided solid material that settles to the bottom of a liquid.

**Substrate** – A surface on which a plant or animal grows or is attached.

**Tidal flat** – an area of land flooded and drained periodically by the rising and falling of the ocean often made of muddy or sandy sediment.

### Activity 12

**Autotrophic** – Designating or typical of plants or plantlike organisms capable of manufacturing their own food by synthesis of inorganic materials, as in photosynthesis.

**Chlorophyll** – Any of a group of related green pigments found in photosynthetic organisms.

**Consumer** – A heterotrophic organism in a food chain that ingest other organisms or organic matter.

**Dissolved oxygen** – The gas oxygen which has been passed into solution, usually water.

**Food web** – A complex of interrelated food chains in an ecological community.

**Larvae** – The newly hatched, earliest stage of any of various animals that undergo metamorphosis, differing noticeably in form and appearance from the adult.

**Nutrient** – Something that nourishes promoting growth and development.

**Photosynthesis** – The process by which chlorophyll-containing cells in green plants convert incident light to chemical energy and synthesize organic compounds from inorganic compounds.

**Phytoplankton** – Microscopic floating aquatic plants.

**Primary productivity** – The measurement of the fundamental conversion of energy and nutrients into living tissue, primarily by plants.

**Producer** – An autotrophic organism in an ecosystem.

**Refraction** – Deflection of a propagating wave, as of light or sound, at the boundary between two mediums in which the speed of the wave is different or in passage through a medium of nonuniform density.

**Salinity** – the measurement of the amount of salt in a solution.

**Upwelling** – The rising up of cold, often nutrient-rich waters from the ocean depths to the surface.

**Zooplankton** – Floating, often microscopic, aquatic animals.

### **Activity 13**

**Percent cover** – The degree, expressed as a percentage, to which a specific area is covered, as with a particular type of vegetation.

**Quadrat** – A four-sided frame of a specific length and width used to identify a sampling area.

**Reproduction** – The sexual or asexual process by which organisms generate others of the same kind.

**Rhizome** – A rootlike, usually horizontal stem growing under or along the ground that sends out roots from its lower surface and leaves or shoots from its upper surface.

**Seagrass** – A group of aquatic plants adapted to life in saltwater environments.

**Shoot** – A bud, young leaf or new growing part on a plant.

**Transect** – A sampling line located to cross a specific area of land or water.

**Vegetative** – Of, relating to, or functioning in processes such as growth or nutrition instead of sexual reproduction in plants.

### **Activity 14**

**Community** – A group of plants and animals living in a particular region under more or less similar conditions.

**Conserve** – To protect from loss or depletion.

**Protect** – To keep from harm, attack, or injury.

**Restore** – To bring back to an original state.

**Service** – An act of assistance or benefit.

**Stewardship** – Managing another's property, finances, or affairs.