Day in the Life of the Hudson River Vocabulary

**ADA-CON**

adapt: to develop a way of dealing with conditions in a particular environment

adaptation: a feature that allows an organism to adjust to differing environmental conditions

algae: single celled, sometimes colonial, plants without a vascular system - the tubes that move sap and water through plants

anadromous: lives in salt water but migrates back to freshwater to spawn

barbel: a slender whisker-like organ on some fishes' heads used to feel and taste (see image of barbels on catfish)

barge: a wide, flat-bottomed boat that is pushed or towed by other boats to transport goods

brackish: mixture of fresh and salt water

breeding: producing young, by hatching or live birth, through sexual reproduction

bulkhead: a barrier of wood timber, concrete or metal, holding the shore in place along the water's edge

camouflage: colors and patterns that let animals blend in with their surroundings

cargo: goods or materials carried on a ship

catadromous: living in freshwater but migrating to saltwater to spawn (for example the American eel - see image)

characteristic: a special quality or appearance that makes an individual or group different from others

chlorophyll: a green pigment found in green plants, algae and cyanobacteria that is responsible for the absorption of light to provide energy for photosynthesis.

chloride: a primary ionic component of seawater, often used to determine water's salinity

community: a group of living things that interact and are located in one place

compass rose: on a map, a design that shows directions

concentration: the amount of an ingredient in a given volume of liquid or other substance

**What is Turbidity?**

Turbidity tests measure how cloudy or clear the water is. Cloudiness does NOT always equal poor water quality or pollution. Water may be turbid because waves or currents stir up mud, or because rain washes sediment (dirt) off the land and into the water. Water may also be cloudy when there are large numbers of tiny plants and animals (phytoplankton and zooplankton) floating in it.

**Why we measure turbidity…**

To look at sediment load and water clarity throughout the river.

**NOTE:**

Different turbidity tests give results in different units. Be sure to record units on your data sheet!

**How to use a SMALL turbidity tube…**

1. Fill the turbidity tube to the 25 ml line with water.
2. Place the base of the tube over the outline on the turbidity chart.
3. Look down through the tube at the black and white circle (secchi disk).
4. Match the circle you see through the tube to one of the surrounding disks.
5. Write the JTU number on your data sheet.
**CRU-GIL**

**crustacean:** one of a class of mostly aquatic arthropods such as shrimp, crabs, and Daphia (blue crab, for example - see image)

**current:** water moving continuously in a certain direction

**dam:** a barrier that holds water behind it

**data:** information

**decay:** to break down through chemical change; to become decomposed, rot

**detritus:** the organic debris from decaying organisms (biology) or the grains or small fragments of rock (geology)

**dilute:** to reduce the strength of a mixture or liquid by adding in and mixing something

**dissolved oxygen (DO):** the amount of oxygen gas in the water

**dock:** (noun) a platform for unloading ships; (verb) to guide a ship onto a pier or wharf

**downriver:** towards a stream’s mouth

**ebb current:** the outgoing tidal current or receding tide

**estuary:** a body of water in which fresh and salt water meet

**extracted:** to remove by pulling, pressing, distilling, or by a chemical process

**fin:** a thin extension of a water-living animal’s body, used in guiding its movement (shown - dorsal (back), and pectoral (side), see image)

**flood current:** the incoming tidal current or the rising tide

**food chain:** the path by which energy in food moves from one organism to another

**food web:** interwoven food chains linking organisms to many food sources

**fresh water:** water that is not salty (rainwater is fresh water)

**gill:** in fish and other animals living in water, an organ used to draw oxygen from water
HAB-PHO

**habitat:** the particular sort of place where a given plant or animal lives

**harbor:** a body of water protected and deep enough to be a safe place for ships

**high tide:** highest water levels in the tidal cycle

**Hudson River miles:** distance measured north from the Battery at Manhattan’s southern tip

**intertidal zone:** an area covered by water at high tide and uncovered at low tide

**invertebrate:** an animal without a backbone

**landscape:** a region’s set of landforms, viewed as a whole

**lateral line** - a sense organ (found along the length of some fish) used to feel movement or vibration in the water

**life cycle:** the stages of form and activity through which a living thing passes as it develops from a beginning stage to an adult able to reproduce and restart the cycle

**low tide:** lowest water levels in the tidal cycle

**marsh:** an area of shallow water with many plants growing through the water’s surface (Iona Marsh, for example – see image)

**migrate:** to move from one place to another

**molt:** to shed periodically an outer covering such as feathers or a shell

**native:** belonging in a particular place by birth; not brought in from another region

**nautical charts:** depth and feature maps used by boat captains for navigating the river (see image)

**organism:** an individual living thing (plant, animal, bacteria, etc)

**pH:** a number used in expressing acidity or alkalinity on a scale with values running from 0 (acidic) to 14 (alkaline); 7 is neutral

**photosynthesis:** the process by which plants that contain chlorophyll make carbohydrates from water and from carbon dioxide in the air in the presence of light
physical adaptation: an adaptation involving the form of an organism

physical map: a map of an area's landforms

pier: structure built out into the water for use as a docking place or walkway

plankton: floating or weakly swimming animal and plant life of a body of water (Phytoplankton = Plants; Zooplankton = Animals)

port: a harbor area where ships load and unload cargo

population: a group of individuals of one species living in a particular region

predator: an animal that eats other animals (see striped bass image)

river: a natural stream of water larger than a brook or creek

salinity: a measure of the amount of dissolved salts in water

salt front: the leading edge of seawater entering an estuary

salt water: seawater or other water that contains salt

scale: on a map, a line marked to show distance

school (of fish): a group of fish swimming together

scientist: a person skilled in science

sea level: the average height of the ocean

seawater: salty ocean water

sediment: loose sand, clay, silt and soil particles, broken down by weathering and erosion, that settle at the bottom of a water body (see image with examples)

seine net: a fishing net that hangs vertically between floats and weights

spawn: to lay eggs; usually refers to animals that live in water
**SPE-WAT**

**species**: a class of living things of the same kind and same name

**submerged aquatic vegetation**: rooted plants that grow below low tide level (water celery, for example - see image)

**symbol**: something that stands for something else

**threatened**: an animal or plant that exists in such low numbers that care must be taken to keep it from dying out

**tidal cycle**: the repetitive rise and fall of the ocean's surface over a 24-hour period

**tides**: the alternating rise and fall of the surface of the ocean and bodies of water closely linked to it

**transmitter**: a device that sends out signals

**transparent**: see-through

**tugboat**: a strongly built, powerful boat used to tow or push other vessels

**turbidity**: how cloudy or clear the water is

**upriver**: towards a stream's source

**vessel**: a boat, ship, or other craft used for travel on water

**watershed**: the area of land from which water drains into a body of water (Hudson River watershed, for example - see image)