DEELO Vocabulary

1. **Acid Precipitation-** It is created when atmospheric water combines with sulfur dioxide and nitrous oxide emissions. These emissions are by-products of the combustion of fossil fuels. Acid precipitation can harm plant and animal life and alter soil conditions. It has a pH of below 5.6. Normal rain has a pH of slightly fewer than 6, which is slightly acidic
2. **Adaptation** – A change in the structure or activity of an organism that produces a better adjustment to its environment, thus enhancing its ability to survive and reproduce. For example, the flattened, oval shape of the larva of the riffle beetle (called a water penny) is an adaptation that helps it cling to the surface of rocks in swift flowing waters
3. **Aeration** - The process of adding air to water
4. **Algae** – Primitive one- celled or multi-cellular plants that contain chlorophyll, but have no root stem, or leaf. Normally found in water or damp place.
5. **Algal Bloom**- A heavy growth of algae in and on a body of water, usually resulting from high nitrate and phosphate concentrations entering water bodies from farm/lawn fertilizers and detergents. Phosphates also occur in some rock formations
6. **Alkaline** - A water condition which has a pH higher than 7.0
7. **Aquatic life** – A plant or animal growing in or upon water
8. **Biodiversity** - The variety of life on our planet, measurable as the variety within species, between species, and the variety of ecosystems
9. **Community**- A group of plants and animals living in a specific region under similar conditions, and interacting with each other though food webs and other relationships
10. **Condensation** - The phase change of a gas to a liquid
11. **Cultural eutrophication -** Process whereby human activity increases the amount of nutrients entering surface waters
12. **Decomposer** – An organism whose feeding action results in decaying, rotting or decomposition. The primary decomposers are bacteria and fungi. They are very important parts of a healthy ecosystem
13. **Decomposition** – To rot or to break apart into basic components. Decomposition makes nutrients such as nitrogen and phosphorus, available for use by other organisms
14. **Deposition -** The process by which sediment is laid down and builds up on the Earth's surface - the direct opposite of erosion
15. **Detritus**- Dead organic matter, such as fallen leaves, twigs, and other plant and animal material that exist in any ecosystem.
16. **Dichotomous**- Divided into tow parts, groups or classes, such as a dichotomous key. Using a dichotomous key, one can identify an unknown organism by following the one branch of each pair that better describes the organism

17. **Ecosystem** – Plants, animals, and their physical surroundings that interact with environmental conditions, such as temperature and rainfall, forming an interpedent system
18. **Ecology -** The study of the relationships between living things and their environment
19. **Effluent** – A liquid flowing out. The outflow of a sewer, septic tank, etc.
20. **Endangered species** – A species that verges on extinction in all or parts of its range
21. **Environmental Sustainability** – The ability to meet the needs of the present without compromising the ability of future generations to meet their needs
22. **Erosion**- The process by which soil particles are carried away by wind, water, freezing and thawing, or a combination of these factors
23. **Eutrophication** – Naturally – occurring changes that take place after a water body receives inputs of nutrients, mostly nitrates and phosphates, from erosion and runoff of surrounding lands; this process can be accelerated by human activity
24. **Evaporation** - The process by which a liquid changes into a gas
25. **Flood plain** - The area around a body of water which may at times be under water and may at other times be dry land, depending on the level of the water in the lake, river, pond, etc.
26. **Food Chain**- The transfer of energy and material through a series of organisms as each one is fed upon by the next. For example:

    Detritus→caddisfly larva→chorus frog→ snake
27. **Food Web**- The interlocking pattern of food chains which exist in an ecosystem
28. **Freshwater** -Water that is not salty; this term also refers to organisms that live in water resulting from precipitation, such as a river, stream, lake, or pond
29. **Glacier** - a slowly moving mass of ice
30. **Groundwater** - Water within the earth that supplies wells and springs
31. **Habitat** – the environmental conditions of the area where a plant or animal naturally grows or lives; its environment
32. **Impervious surfaces** - Hard surfaces, such as rooftops, roads and parking areas, that prevent or slow infiltration of water. Lawns with underlying soils compacted by heavy machinery are considered impervious.
33. **Ice cap** – A glacier that covers the peak of a mountain
34. **Indicator Species** – An organism whose presence or absence in a particular environment can be used to determine the health of that particular environment
35. **Insect** – Any animal in the Class Insecta. Have a head, thorax, abdomen, and three pairs of legs on the thorax. As adults they usually have one or two pairs of wings attached to the thorax
36. **Irrigation** – The pumping of water from ponds, lakes, or rivers, through pipes or canals to supply crops with water during dry periods

37. **Larva** – (larvae, plural) the immature form of an animal that changes structurally when it becomes an adult, usually by complex metamorphosis.
38. **Macroinvertebrate** – Macro means large, invertebrate means with a backbone. An invertebrate usually large enough to be seen without the aid of magnification
39. **Metamorphosis** – Meta means change, morph means form. A change in form, structure or function as a result of development. A physical transformation undergone by various animals during development from the larval stage to the adult form. For example, through metamorphosis, a hellgrammite (larval form) becomes a Dobsonfly (adult form). The change from tadpole (larval form) to frog (adult form) in another example of metamorphosis
40. **Mussels** - A bivalve mollusk that can be found in lakes, rivers, creeks, inter-tidal areas, and throughout the ocean
41. **Non- point Source Pollution**- Pollution that cannot be traced to a specific point because it comes from many individual places or a widespread area (e.g. Urban and agricultural runoff)
42. **Nymph** – The young of an insect that undergoes incomplete metamorphosis, differing from the adult primarily in size and structural proportions.
43. **Organism**- A plant or animal; any living thing.
44. **pH Scale** – A scale from 0 to 14 reflecting the concentration of hydrogen ions in solution
45. **Photosynthesis**- The chemical process carried on by green plants in which the cells that contain chlorophyll use light energy to produce glucose (a plant food) from carbon dioxide and water; oxygen is released as a by-product. See respiration
46. **Plankton** – Collective term for the mostly microscopic plants (phytoplankton) and animals (zooplankton) that float or drift in oceans and fresh waters. These plants and animals are a very important food source in aquatic environments
47. **Point – Source Pollution** – Pollution that can be traced to a single point source, such as a pipe or culvert (e.g. Industrial and wastewater treatment plant discharges.)
48. **Pool** - A reach of stream that is characterized by deep low velocity water and a smooth surface
49. **Precipitation** – A general term for all forms of falling moisture including rain, snow, hail, or sleet
50. **Respiration** – The process, by which an organism takes in oxygen and releases carbon dioxide, breathing. See photosynthesis.
51. **Riffles** - Shallow disturbed part of a stream
52. **River Basin** – The watershed of an entire river. It encompasses the many smaller watersheds of the river's tributaries or branches.
53. **Runoff** – Rain, melted snow and other materials that drain or glow off surfaces such as city streets, roofs, suburban lawns and agricultural land

54. **Sediment** – Deposits of soil or organic matter that were suspended in water and then settled to the bottom. It is often deposited in the water by runoff
55. **Sedimentation** – The deposition or accumulation of soil particles in water
56. **Sewage** – liquid or solid waste mixed with water
57. **Sinuosity** - The amount of bending, winding and curving in a stream or river.
58. **Stewardship**- The act of people taking responsibility to maintain and protect a clean and healthy environment
59. **Stream Index Value** – The relative health of a water body. It is based on the tolerance or sensitivity of a macroinvertebrate to changes in water quality and calculated using a simple formula
60. **Taxonomy** – A system of arranging animals and plants into natural, related groups based on some factor common to each, such as structure, embryology, biochemistry, etc.
61. **Terrestrial –** Living on the land
62. **Threatened Species** – A species that could become endangered in the future if it is not given some kind of protection
63. **Tributary**- A smaller river or stream that flows into a larger river or stream. Usually, a number of smaller tributaries merge to form a river
64. **Turbidity** – Cloudiness caused by particles suspended in water.
65. Wastewater Treatment Plant – a facility where household, business, and industrial sewage are treated to remove harmful bacteria and chemicals
66. **Water** – A colorless, transparent liquid occurring in the earth's surface as rivers, lakes, oceans, wetlands, etc. A chemical compound of hydrogen and oxygen, H2O
67. **Water Treatment Plant** – A facility where water is treated with chemicals processed and distributed to homes, businesses and industries for drinking and other clean water uses
68. **Watershed** – The total land area that drains directly or indirectly into a particular stream, river or lake
69. **Wetland**- An area flooded by water frequently enough to support plants adapted to living in regularly or seasonally wet soil. Examples of wetlands are swamp forests, marshes, bogs, pocosins, beaver ponds and Carolina bays

SPECIFIC TO WETLANDS:
Wetland classifications vary around the world. The following is a partial list of wetlands as defined by Mitsch and Gosselink (771-784).

- **Bog** – "A peat-accumulating wetland that has no significant inflows or outflows and supports acidophilic mosses, particularly *Sphagnum*." Bogs are common in far-northern landscapes like Russia or Canada and are mainly fed by precipitation.

- **Fen** – "A peat-accumulating wetland that receives some drainage from surrounding mineral soil and usually supports marsh like vegetation." Fens are fed by both groundwater and rainwater and are more common in the temperate zones than bogs.

- **Pocosin** – "Peat-accumulating, nonriparian freshwater wetland, generally dominated by evergreen shrubs and trees and found on the southeastern Coastal Plain of the United States." Pocosins are common in eastern North Carolina.

- **Marsh** – "A frequently or continually inundated wetland characterized by emergent herbaceous vegetation adapted to saturated soil conditions." Typically, a wetland with only herbaceous vegetation, such as reeds, is considered a marsh.

- **Swamp** – "Wetland dominated by trees or shrubs (U.S.definition). In Europe, forested fens and wetlands dominated by reed grass are also called swamps.

- **Bottomland** – "Lowland along streams and rivers, usually on alluvial floodplains, that is periodically flooded. When forested, it is called a bottomland hardwood forest in the southeastern and eastern United States." Bottomland hardwood forests are common in North Carolina.

- **Tidal Freshwater Marsh** – "Marsh along rivers and estuaries close enough to the coastline to experience significant tides by nonsaline water. Vegetation is often similar to nontidal freshwater marshes."

- **Salt Marsh** – "A halophytic grassland on alluvial sediments bordering saline water bodies where water level fluctuates either tidally or nontidally." Salt marshes are found along the coast of North Carolina

- **Vernal Pool** - A wetland that occur in shallow basins that are generally underlain by an impervious subsoil layer (e.g., a clay pan or hard pan) or bedrock outcrop, which produces a seasonally perched water table. A type of Wetland in which water is present for only part of the year, usually during the wet or rainy seasons (e.g., spring).