**Long Island Sound and MARINE ECOLOGY TEST REVIEW**

1. Describe the function of the following tools.
	1. Secchi disk
	2. DO test
2. Describe how Long Island Sound was created.
3. Label on a map where fresh water and salt water come from into and out of LIS?
4. Describe an estuary.
5. Identify and describe how LIS is used economically, give 3 examples.
6. Identify and describe how LIS is used ecologically, give 3 examples.
7. What type of water is found in an estuary? How is it made?
8. What abiotic(non-living) factors affect the organisms living in an estuary?
9. Name the three rivers that feed into LIS from CT.
10. How salty is LIS? What is the average temperature?
11. What types of fluctuations must an organism living in LIS have to deal with?
12. How many tides are in LIS?
13. What controls a tide?
14. How do tides affect living organisms in LIS?
* Define the following terms and give examples of each
	+ Plankton
	+ Nekton
	+ Benthos
* What is detritus? Where does it come from?
* What is detritus used for?
* Distinguish between these types of consumers: suspension feeder, herbivore, scavenger,

filter feeder, predator, deposit feeder, opportunistic feeder, omnivore, primary, secondary, tertiary and quaternary consumers. State example(s) of each.

* Construct a simple food chain
* Turn your food chain into a food web.
* What happens to energy as you move up the food chain? Where does it go?
* How does an organism use energy and nutrients it receives from its food?
* What does an energy pyramid represent? (3 things)
* What is the rule of 10s and how does it apply to the food chain?
* Describe the difference between an autotroph and a heterotroph.
* What is the difference between photosynthesis and chemosynthesis? Where does each occur?
* Identify and describe interactions among marine organisms (biotic factors). Be sure to give an example of each.
	+ Competition
	+ trophic or feeding relationships;
	+ producer
	+ consumer
	+ decomposer (recyclers).
* State the taxa in the correct order (KPCOFGS)
* Use a Dichotomous key to identify species (you can practice using this site <http://www.biologycorner.com/worksheets/pamishan.html> )

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| http://upload.wikimedia.org/wikipedia/commons/thumb/4/4b/Hippocampus.jpg/220px-Hippocampus.jpg |
| *Hippocampus* sp. |
| [**Scientific classification**](http://en.wikipedia.org/wiki/Biological_classification) |
| Kingdom: | [Animalia](http://en.wikipedia.org/wiki/Animal) |
| Phylum: | [Chordata](http://en.wikipedia.org/wiki/Chordata) |
| Class: | [Actinopterygii](http://en.wikipedia.org/wiki/Actinopterygii) |
| Order: | [Syngnathiformes](http://en.wikipedia.org/wiki/Syngnathiformes) |
| Family: | [Syngnathidae](http://en.wikipedia.org/wiki/Syngnathidae) |
| Subfamily: | [Hippocampinae](http://en.wikipedia.org/wiki/Hippocampinae) |
| Genus: | Hippocampus |
| Species | breviceps |

* Classify an organism to its scientific name and define its relationship to the different levels of classification. Be able to write a scientific name correctly. Write the scientific name of the sea horse at right.
* State examples and some distinguishing characteristics of each of the animal phyla:
	+ Porifera
	+ Cnidaria
	+ Ctenophora
	+ Annelida
	+ Arthropoda
	+ Mollusca
	+ Echinodermata
	+ Chordata.