**Oceans 11: Marine Biomes test Review**

You should be able to accurately describe/label/explain the following concepts:

**Marine Ecology:**

* Define Marine Ecology
* Define and gives examples of Abiotic and Biotic Factors
* Zones of the Ocean:
	+ Pelagic, Benthic
	+ Describe the Oceans zones:
		- Light: Euphotic, Disphotic and Aphotic
		- Depth: Epipelaic, Mesopelagic, Bathypelagic, Abyssopelagic, Hadopelagic
		- Surface Layers: Neritic Zone and Epipelagic one

**Trophic Relationships:**

* Describe how energy passes from the sun through to the top consumer
* Oceanic food pyramids, food webs and food chains
* Define and give examples of:
	+ Autotrophs, Heterotrophs, Decomposers
* Energy Transfer:
	+ Describe how much energy is transferred through the food pyramid (10% to each level)
	+ Describe ways in which energy is lost
	+ Explain why there are only 4 – 5 levels in a food pyramid?
	+ Explain why decomposers are so important to the food web (but are often not shown !)
* Feeding Relationships
	+ Predator, Prey, Scavenger
	+ Symbiotic Relationships:
		- Commensalism, Mutualism and Parasitism

**Classification of Marine Life:**

* Describe the marine biome (what does it include?)
	+ Importance of the marine biome
	+ 3 main types of marine biomes
		- Physical, Biological and Chemical characteristics
* Classification of marine organisms:
	+ Plankton
		- Why are plankton important?
		- Harmful Algal Blooms (If plankton are so good, how can these be bad?)
	+ Neckton
	+ Benthos
* Primary productivity
	+ Importance of producers in the ocean
	+ Ocean acidification (absorption of CO2 by the ocean)
	+ Limiting factors of primary productivity
	+ Why do we see spring and fall blooms of primary productivity?

**Classification:**

* Explain why we need to classify marine organisms?
* Describe the 5 points as to why we need to classify organisms.
* Binomial Nomenclature
	+ Who created this?
	+ Why is this system useful?
* 3 Kingdom classification
	+ Difference between prokaryotes and Eukaryotes
* 7 Taxonomic classification
	+ Know the order (Kingdom, Phylum, Class, Order, Family, Genus, Species)
		- Use an acronym! (**K**erri **P**lease **C**ome **O**ver **F**or **G**ood **S**paghetti)
	+ Relatedness among organisms
		- How can you tell which organisms are more closely related?
* Cladograms
	+ Describe how cladograms separate organisms
* Dichotomous Keys
	+ Describe how dichotomous keys separate organisms?
	+ What is one main difference between dichotomous keys and cladograms?

**Adaptations for Marine Life:**

* Define and describe the importance of biodiversity
	+ Why is biodiversity important to survival?
	+ How is biodiversity affected by adaptations?
* Define and explain the importance of adaptations
* 3 Types of Adaptations
	+ Describe and give examples of each:
		- Structural, Physiological, Behavioural
* Specific adaptations for the marine environment
	+ Camouflage, counter shading, disruptive coloration
	+ Water’s transparency, water pressure, deep ocean (dark)

**Bioaccumulation and Biomagnification**:

* Define Bioaccumulation and Biomagnification
* Persistent Organic Pollutants (POP’s)
	+ Characteristics
	+ Why are they so harmful?
* Effects of Biomagnification on organisms at the top of the food chain
* Biomagnification in the ocean
	+ Why is this a serious issue?
	+ Plastics and biomagnification

**Diagrams to Review:**







