

Deep Blue Sea Science Olympiad Study Guide- 2012

The purpose of this guide is to focus the areas of study for the Deep Blue Sea Event

Part 1: Be able to identify pictures and answer questions about the following:

Ocean Flora: algae, kelp (stipe, holdfast, frond, pneumatocysts), phytoplankton

Ocean Fauna: Cnidarians, Echinoderms, Mollusks- (gastropoda, bivalvia, polyplacophora, cephalopoda), Arthropods, Chordates (chondrichthyes, osteichthyes, mammals)

Exploration Vessels and Tools: (diving bells, SCUBA, Alvin, HMS Challenger, trawls, bathysphere)

Part 2: Be able to identify features, locate features on a map, and answer questions about any of the following items

Physical Features: trenches (including Marianas trench and that Challenger Deep is in it), trench features, seamounts, guyots, black smokers, abyssal plains, continental shelf, continental slope, atoll formations (also know how they formed), 4 types of ocean sediments, volcanic island arcs, manganese nodules, coral reefs, oceanic ridges

Phenomena: how tides form, spring tides, neap tides, diurnal tides, semi-diurnal tides, mixed tides, 6 major currents- 5 gyres and Antarctic Circumpolar (major currents within the gyres), rogue waves, tsunami, wave train, swash, fetch, seiche, intertidal zone, pelagic zone, benthic zone, abyssal zone, upwelling, downwelling, etc

Geography: location and identification of oceans, seas, major bays, etc

Vocabulary: vocabulary related to the above topics

will have everything at desk