



NOAA Jeopardy - Grades 9-12 Honors Edition

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Biology

Answer	Question
The phyllosome is the larval form of this type of marine organism	What is a lobster?
A pluteus is the larval form of this type of marine organism	What is a sea urchin?
The term for the lighted zone of the upper ocean	What is the euphotic or the photic zone?
With a primary diet of jelly fish, this species of fish can reach a size exceeding 2 tons	What is Mola mola?
The primary defense mechanism of sea cucumbers	What is autoevisceration?
Sea spiders are one of a few creatures that are capable of feeding on this "fighting" siphonophore	What is the Portuguese man-of-war?



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Answer	Question
Diatoms are members of this kingdom	What is <i>Protista</i> ?
<i>Ctenophores</i> use these to capture food	What are colloblasts?
The group of marine animals with the largest number of species identified as threatened or endangered	What are mammals?
This chemical, a component of rocket fuel, interferes in the sexual development of some fish	What is perchlorate?
The type of larvae present in all <i>Crustacea</i>	What are nauplii? (<i>sing. nauplius</i>)
A type of net used to collect fish in shallow "French" waters	What is a seine net?
This predatory sea star can decimate coral populations on tropical reefs	What is the crown of thorns (<i>Acanthaster</i> or <i>Acanthaster planci</i>)?
The primary sense used by hatchling turtles to find their way to the ocean	What is sight?
Analyzing this body part determines a fish's geographical origin.	What are otoliths or ear bones/stones?
The common name describing any of the black and white varieties of auk species of coastal birds.	What is puffin?
This class of annelid worms contains the most marine species	What is <i>Polychaeta</i> ?
Smaller than the most minute phytoplankton, this category of oceanic organisms is composed of viruses and bacteria	What are picoplankton?



Answer	Question
The common name for ctenophores	What is comb jellies?
The term for the lowest layer of water in a thermally stratified lake	What is hypolimnion?
Newly hatched, actively feeding post-larval fish	What are fry?
Zebra mussels, an invasive species in North America, are native to this sea	What is the Caspian Sea?
This genus of arthropods live on the ocean surface and float due to air trapped in body hair	What are <i>Halobates</i> ?
A bull shark exhibits this type of reproduction	What is viviparous reproduction?
This poisonous fish is commonly known as "fugu" in Japan	What is a pufferfish?
The similarity in appearance of puffins and penguins is thought to be due to this type of evolution	What is convergent evolution?
Of the ratfish, catfish, batfish, and scorpionfish, this one is not a bony fish	What is the ratfish?
Crustaceans have exoskeletons made of this organic matter	What is chitin?
Diel migration by copepods to avoid predation is an example of this type of defense	What is behavioral defense?
The larval stage of a barnacle	What is a cypris?
The common name for the <i>bacillariophyceae</i>	What is diatoms?



Answer	Question
A pluteus is the larval form of this type of marine organism	What is a sea urchin?

Geography

Answer	Question
This conference extended the territorial sea from 3 to 12 nautical miles	What is the United Nations Conference on the Law of the Sea?
Tektites are examples of these types of sediments	What are cosmogenous sediments?
The youngest ocean	What is the Atlantic Ocean?
Marine mammals migrate in this direction to give birth	What is towards the Equator?
The deepest lake in the world	What is Lake Baikal?
The two straits that connect the North Sea to the Baltic Sea	What are Skagerrak and Kattegat?
This island is referred to as the "graveyard of the North Atlantic"	What is Sable Island?
You can find the Gakkel Ridge in this ocean	What is the Arctic Ocean?
The name of the major western boundary current in the Indian ocean off northeast Africa	What is the Somali current?
Demerara, Sohm, and Boreas are names connected with these deep features in the Atlantic Ocean	What are abyssal plains?



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Answer	Question
Ruled by the Belgians prior to independence, this African country shares the name with the largest submarine canyon off West Africa	What is the Congo?
The largest river that empties into the Okhotsk Sea	What is the Amur River?
These Atlantic Ocean islands are named after brightly colored birds	What are the Canary Islands?
This river discharges the largest amount of freshwater to the ocean	What is the Amazon?
The largest landlocked sea in the world	What is the Caspian Sea?
This central American country is home to the world's second largest barrier reef	What is Belize?
The largest river that empties into the Bering Sea	What is the Yukon River?
This North Atlantic sea is bounded by currents instead of land	What is the Sargasso Sea?
The largest estuary in the United States	What is the Chesapeake Bay?
The Lomonosov Ridge runs underneath this ocean	What is the Arctic Ocean?
This continent is the primary source of Aeolian dust to the Atlantic Ocean	What is Africa?
This country has the longest coastline	What is Canada?
The oldest Hawaiian island	What is Kauai?
Georgian Bay is part of this Great Lake	What is Lake Huron?



Answer	Question
This delta in South China is known as the "land of fish, rice, and fruit."	What is the Pearl Delta?

Chemical

Answer	Question
The term used to describe higher than normal concentrations of dissolved carbon dioxide	What is hypercapnic?
If you use a Winkler titration method, you are measuring this	What is dissolved oxygen?
This chemical was recently banned from use in paint	What is tributyltin (TBT)?
The process of carbon fixation used by species at hydrothermal vents	What is chemosynthesis?
The chlorinity of seawater is defined as the sum of the concentrations of these three anions	What are chloride, bromide, and iodide ions?

Physical

Answer	Question
The portion of the atmosphere that lies at the greatest distance from the ocean surface	What is the mesosphere?
The ocean where the Cromwell current is found	What is the Pacific Ocean?



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Answer	Question
Vertical mixing in the high latitudes of the North Atlantic occurs in this season	What is winter?
The boundary between less dense surface water and more dense deep water	What is a pycnocline (or thermocline)?
The rate at which temperature decreases with atmospheric height	What is the lapse rate?
The type of tide that occurs when the sun, moon, and earth are in alignment	What is a spring tide?
The season where the seasonal thermocline re-stratifies	What is spring?
The warm current fed by the East Madagascar and Mozambique currents	What is the Agulhas current?
The front closest to Antarctica's coast	What is the Southern Antarctic Circumpolar Front?
The pressure difference between Tahiti and Darwin, Australia provides this	What is the Southern Oscillation Index?
These types of waves always propagate to the west	What are Rossby waves?
The two processes that attenuate light entering the ocean	What are absorption and scattering?
Water masses mix mostly along constant lines of this	What is density?



Geology

Answer	Question
The type of sediment most commonly found at high latitudes beneath divergent currents	What is siliceous ooze?
The most abundant green mineral in Hawaiian beach sands	What is olivine?
This sacred river shares its name with a large submarine fan in the northern Bay of Bengal	What is the Ganges?
Submerged terminal moraines are formed by this type of weathering	What is chemical weathering?
The deepest zone in the ocean	What is hadalpelagic?
A volcanic vent or hole that emits hydrogen sulfide or other hot gases	What is a fumarole?
The term used to describe the state of gravitational equilibrium between the Earth's lithosphere and asthenosphere	What is isostasy?
Rocks found at oceanic rises are of this type	What is basaltic?
The chemical composition of limestone	What is calcium carbonate (CaCO ₃)?
The term used to describe the study of ancient magnetic fields	What is paleomagnetism?



Acronyms

Answer	Question
HAB	What is Harmful Algal Bloom?
ROV	What is Remotely Operated Vehicle?
SCUBA	What is Self-Contained Underwater Breathing Apparatus?
SOI	What is Southern Oscillation Index?
HNLC	What is High Nutrient, Low Chlorophyll?
EEZ	What is the Exclusive Economic Zone?
JGOFS	What is Joint Global Ocean Flux Study?
ANNAMOX	What is Anaerobic Ammonium Oxidation?
NAO	What is the North Atlantic Oscillation?
AUV	What is Autonomous Underwater Vehicle?
ICES	What is International Committee for the Exploration of the Seas?
Robert Watson Watt invented this	What is RADAR?
CCD	What is Carbonate Compensation Depth?
ENSO	What is El Niño-Southern Oscillation?



Answer	Question
NZPD	What is Nitrate Phytoplankton Zooplankton Detritus?
ITCZ	What is the Intertropical Convergence Zone?
MPA	What is Marine Protected Area?
OTEC	What is Ocean Thermal Energy Conversion?
LME	What is Large Marine Ecosystem?

Potpourri

Answer	Question
This gulf has experienced more large oil spills than any other	What is the Gulf of Mexico?
The warmest gulf	What is the Gulf of Arabia (Persian Gulf)?
The type of net you need to collect animals from the phylum <i>Chaetognatha</i>	What is a plankton net?
If you ordered bêche-de-mer, you would be served these	What are sea cucumbers?
Named for a Genoese explorer, the widest outlet for the Gulf of St. Lawrence	What is the Cabot Strait?
The U.S. agency responsible for dredging sediment from shipping channels.	What is the U.S. Army Corps of Engineers?



Answer	Question
A sling psychrometer measures this	What is relative humidity?
This nation launched Oceansat, a satellite dedicated to ocean studies	What is India?
This method detects variations in water temperature, salinity, and movement by sending pulses of low-frequency sound	What is acoustical tomography?
Salty tunnels found in sea ice	What are brine channels?
This "curve" measures trends in concentrations of atmospheric carbon dioxide	What is the Keeling Curve?
The 1961 Monterey Bay seabird attack inspired this Alfred Hitchcock movie	What is <i>The Birds</i> ?
The month that is the statistical peak of the North Atlantic hurricane season	What is September?

It's Elemental

Answer	Question
This chemical element is thought to limit phytoplankton production in high nutrient, low chlorophyll regions of the ocean.	What is iron (Fe)?
The toxic chemical responsible for the "walleye scare" of the 1970s	What is mercury (Hg)?



Answer	Question
The detonation of atomic weapons in the 1960s distributed large amounts of this element which can be used as a tracer for physical movement of water masses	What is tritium (^3H)?
The isotopes of this element are used to estimate coral growth rates	What is oxygen (O)?
Name two dissolved elements with residence times measured in hundreds of years	What are aluminum (Al), iron (Fe), cadmium (Cd), lead (Pb), manganese (Mn)?
Two major elements that make up the earth's crust	What are oxygen (O) and silicon (Si)?
The two most abundant ions dissolved in ocean water	What are sodium (Na) and chlorine (Cl)?
Found in large quantities on the ocean floor and is extracted from the mineral pyrolusite.	What is manganese (Mn)?
The radioactive and conservative isotope of this element is used to trace oceanic water masses	What is radium (Ra)?

People

Answer	Question
Her palace was discovered underwater in the harbor of Alexandria, Egypt	Who was Cleopatra?
The name of the captain who finished the first global circumnavigating expedition	Who was Juan Sebastián Elcano?



Answer	Question
The only person to orbit the earth as an astronaut and live beneath the sea as an aquanaut	Who is Scott Carpenter?
The father of oceanography	Who was Matthew Maury?
The inventor of the snorkel	Who was Leonardo da Vinci?
The person who first presented the Continental Drift hypothesis	Who was Alfred Wegener?
Tide-generating forces were first explained by him	Who was Sir Isaac Newton?
He published the first map of the Gulf Stream	Who was Benjamin Franklin?

Colors

Answer	Question
Many fish and invertebrates living in the lower euphotic or aphotic zone are this color	What is red?
These marine turtles are named because of the color of the fat deposits inside them	What are green sea turtles?
The Sea of Azov and this sea are connected by the Kerch Strait	What is the Black Sea?
The sea where the Odden Ice Tongue has been observed	What is the Greenland Sea?
The color of visible light most attenuated by seawater	What is red?



Answer	Question
The color of visible light that penetrates deepest into the ocean	What is blue?

Numbers

Answer	Question
The percentage of invertebrates in all species in the animal kingdom	What is 95%?
The number of arms and tentacles a squid has	What is eight and two?
Phytoplankton are responsible for this percentage of carbon fixation on earth	What is 50%?
The number of feet in a nautical cable	What is 608 feet?
The parallel of latitude defined as the northern boundary of the Southern Ocean	What is 50 degrees south?
The Redfield ratio between Carbon, Nitrogen and Phosphorous	What is 106:16:1?
The percent of the world's fresh surface water contained in the Great Lakes	What is 20%?
The time period for a complete Wilson Cycle (the successive opening and closing of ocean basins through plate tectonics)	What is 500 million years?
Of the seven marine turtle species, the number of them on the Endangered Species list	What is seven?



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The Steller's Sea Cow was discovered and driven to extinction in this century	What is the 18th century?
The number of feet in one fathom	What is six?
The age of the oldest oceanic crust	What is one billion years?
The approximate percentage of water on Earth that is fresh	What is 3%?
The number of pounds of carbon dioxide emitted into the atmosphere from burning one gallon of gasoline.	What is 20?
The approximate pH of normal seawater	What is eight?
The length of time it takes a satellite to orbit the earth at an altitude of 500 miles above its surface	What is 100 minutes?
The temperature at which seawater freezes	What is -2° Celsius?
The Earth's average atmospheric surface temperature	What is 15° Celsius?
The number of minutes a solar day is shorter than a lunar day	What is 50?
The number of weeks between a new moon and full moon	What is two?
The approximate mixing time of the ocean	What is 1,600 years?
The approximate Bowen ratio over oceans	What is 0.1?



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The approximate average salinity of the world's oceans	What is between 34.5 and 35 parts per thousand?
The maximum transparency of sea water measured with a Secchi disc	What is 79 meters?
The highest sea surface salinity ever recorded in the ocean	What is 43?
The density of water with a sigma-T (σ -T) of 26	What is 1.026 kg/l?
The average speed a tsunami wave travels across the open ocean	What is 804.5 km/hr (499.9 mph or 434.4 kts)?
The number of currents that make up the Pacific gyre	What is four?
This "number" gives some prediction of turbulence around an object in a fluid flow state	What is the Reynolds number?
The number of different types of crustal plate boundaries	What is three (convergent, divergent, and transform boundaries)?
The number of air sacs in a dolphin's respiratory system	What is six?