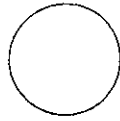


WEDNESDAY, OCTOBER 19TH

**Hydrosphere Unit Test
Study Guide**



Name: _____

Date: _____ Class: _____ Seat #: _____

On this sheet of paper identify all the places in our class' science notebook that you can find information on that topic.

On separate sheets of paper answer as many of the questions as you can.

If you cannot answer the question make sure you come to class prepared to ask questions.

Log entries	#	Questions/topics
	1	Know all of the Water Vocabulary (#1 & #2)
	2	Identify how water is distributed throughout the Earth- give the per cent of freshwater, saltwater, useable, frozen, etc.
	3	Where would you find freshwater? Name the different sources above and below the Earth's surface.
	4	Describe the water cycle and label it with the following: condensation, precipitation, evaporation, transpiration, runoff, percolation, and groundwater.
	5	Be able to describe what is happening to the water as it goes through each step.
	6	Explain why is water important to life on Earth.
	7	What is an aquifer? Be able to label its layers using the words saturated, unsaturated, water table, permeable, and impermeable.
	8	How can eutrophication bring about the death of a lake or pond? What chemicals and organisms are involved?
	9	What is the difference between a septic system and a sewer system?
	10	What is the difference between point-source and nonpoint-source pollution? Give examples of each.
	11	What indicators do scientists use to measure water quality? What are bio-indicators?

Log entries	#	Questions/topics
	12	Describe what happens when nitrates are allowed to enter a water system? (temperature, dissolved oxygen, turbidity, etc.)
	13	What is the relationship between salinity and density?
	14	What is the relationship between temperature and dissolved oxygen?
	15	What is upwelling? What is downwelling? How does each benefit ocean life?
	16	What are currents? What causes surface currents and deep water currents?
	17	How do fertilizers from developed land affect estuaries?
	18	What are the three ocean zones as you move from the edge of land out towards the middle of the ocean? What defines each zone? What resources support life in each zone?
	19	How does ocean life differ in each of these zones? How have the organisms that live there adapted to be suited to that environment?
	20	How does the temperature of the water change as you go deeper in the ocean?
	21	What are hydrothermal vents? How does life survive at such a great depth with intense water pressure, without sunlight for photosynthesis, and near such intense heat sources?
	22	What is by-catch? What is overfishing? How have these affected ocean animal populations?
	23	What are coral reefs? What are kelp forests? What do they have in common? How are they different?
	24	Where are phytoplankton found in the ocean? What about their environment allows them to thrive where they live? What role do they play in the ocean's food webs?

THURSDAY, OCTOBER 20TH

Essay Questions

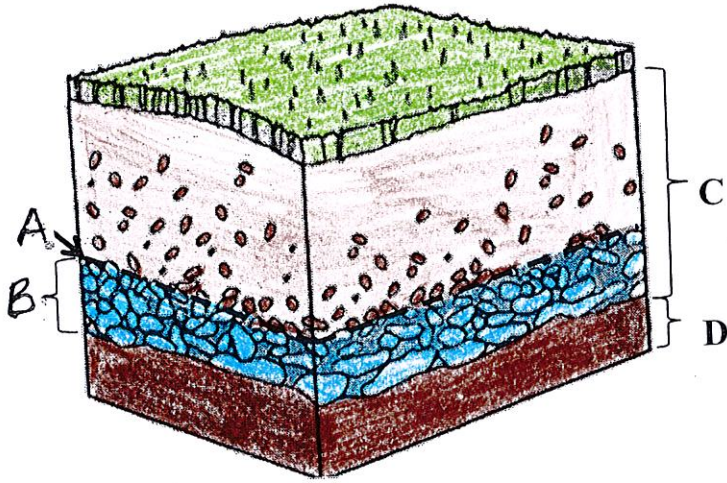
Choose two of the following essay questions and answer them on the lined paper provided.

(10 points each)

- E1. Identify three ways in which pollution from one of the following sources might enter Earth's fresh water: agriculture, households, or industry. Then identify how that particular source of water pollution can be stopped or reduced.
- E2. A farmer regularly spreads large amounts of fertilizer on a corn field that is uphill from a large pond. One day he notices that a thick scum has formed on the surface of the pond. Identify and describe the process that is occurring in this pond. Explain what will happen to the pond if this process continues.
- E3. List and describe some factors that are used to evaluate water systems health. Explain how each of these factors are used and what type of measurement would be an indication of a healthy water system. Discuss how changes in one factor can have an effect on the other factors.
- E4. Compare and contrast surface and deep ocean currents. Use these terms in your answer: *wind, density, heat, upwelling, and nutrients*.
- E5. Explain why near-shore environments support more kinds of life than any other ocean environment. Use the following terms in your response: *sunlight, nutrients, salinity, and temperature*.
- E6. Kelp live near shore. Describe the conditions of a near-shore environment. Then describe how kelp is suited to live in this environment.
- E7. Choose two of the following three ocean environments: *near shore, surface zone, and hydrothermal vents*. Briefly describe these environments. Then identify one organism that lives in each and describe how this organism is suited to live in this environment.



LABEL THE FOLLOWING :



A Water Table

B AQUIFER

C Permeable (ROCK)

D Impermeable (ROCK)