ES106 Video Exercise

Name	

Endless Voyage Video Series 1 - Introduction to the Water Planet

Watch the video and answer the following review questions.

- 1. What is the fundamental characteristic of the Earth that makes it conducive to life?
- 2. What are two "nicknames" given to our planet Earth?
- 3. What percentage of the planet earth is covered in water?
- 4. What is the average distance of the Earth to the Sun?
- 5. What is the dominant form of water on the planet? Solid, liquid, or gas?
- 6. True or False: water has a very poor ability to hold heat.
- 7. True or False: Earth's oceans are effective at modulating the atmospheric temperature.
- 8. What is the approximate depth to which photosynthesis is effective in the world's oceans?
- 9. Where is the majority of biomass on Earth contained?... on the continents or in the oceans?
- 10. True or False: The Big Bang Theory accepts the notion that all objects in the universe are currently collapsing together.
- 11. What is the estimated age in the past at which the "Big Bang" creation of the universe is hypothesized to occur.
- 12. True or False: our present universe is "transparent" and humans are capable of seeing through space to it's furthest reaches.
- 13. How long after the "Big Bang" event is the Earth's solar system hypothesized to have formed?
- 14. True or False: the four planets closest to the Sun are composed or rocky materials and metals.
- 15. Based on geologic data, what is the dominant gas that was hypothesized to compose the atmosphere during it's early stages of development?
- 16. What percentage of the present-day atmosphere is composed of oxygen?
- 17. How are plants and their evolutionary development on the Earth, related to atmospheric composition?

- 18. True or False: the early history of the Earth is characterized by an oxygen-deficient atmosphere.
- 19. True or False: the moon is hypothesized to have formed from planetary collisions with planet Earth.
- 20. What is the most abundant element in the universe?
- 21. What is the chemical formula of water?
- 22. True or False: water is common in the universe?
- 23. What are the two hypotheses that are used to explain where the Earth's water was derived from?
- 24. Biologic components of the Earth are made out of the essential organic elements abbreviated as "CHON", what are the names of these elements.
- 25. True or False: the history of life of planet Earth is heavily dependent upon the presence of water.
- 26. What are the essential criteria that are used to define the term "LIFE"?
- 27. What are the two primary necessities or requirements for life to develop on a planet?
- 28. True or False: the goal of life is to eat, drink, and make more?
- 29. True or False: it is categorically not possible for life to develop on the deep ocean floor where there is no sunlight.
- 30. What is the maximum depth of the oceans below sea level?
- 31. True or False: without the oceans, the average temperature of the Earth would be \sim 130 degrees F.
- 32. True or False: I love the Earth.