

Science Study Guide: Oceans

Directions: This is a work in progress and not expected to be completed in one sitting. Keep adding to it as you learn.

Define:

- abyss
- current
- desalination
- ecosystem
- estuary
- fetch
- headland
- jetty
- phytoplankton
- scuba
- shore
- sonar
- submersible
- tide
- tide pool
- wave
- zooplankton

Brainstorm: Add your ideas to this table.

Why are our oceans important?	What problems do our oceans face?

Discover: Respond to these questions.

1. What is an ecosystem? What three parts make up the saltwater ecosystem? Explain each.
2. How much of the Earth is covered with water?
3. Explain how waves begin and how water moves within a wave.
4. Illustrate and label the parts of a wave.
5. What is a tsunami? Why does it cause so much damage on the shoreline?
6. What other natural occurrences besides wind cause waves? Explain each.
 - a)
 - b)
 - c)
7. How many ocean current cells are there? Why are they called *cells*?
8. How do surface currents affect climate?

9. What causes ocean currents on the surface?
What causes ocean currents in deep water?
Explain rip currents.
Explain longshore currents.
10. Explain upwelling.
11. What causes the tides? Explain in diagram form what happens on Earth to create tides.
12. There are two high tides and two low tides every _____ hours and _____ minutes.
13. Where on Earth are the greatest differences between high and low tides?
14. How do waves and currents change the shore?
15. How does human activity change the shore?
16. What are the main features of the ocean floor? Describe each.
 - a)
 - b)
 - c)
 - d)
17. What is the continental shelf? Explain why in some ways the continental shelf is the most important part of the land beneath the ocean.
18. How do scientists study the ocean floor?
19. What are the three main groups of life that live in the ocean?
 - a)
 - b)
 - c)
20. Explain the food cycle in the ocean.
21. What is the name of the deepest spot on Earth? How deep is it?
22. Name some of the resources of the ocean and describe their use.
23. Why should we study the sea?
24. Name some careers that relate to the ocean.
25. Who is Dr. Robert Ballard? Why is he famous?

26. What are some technologies that scientist have used to explore the ocean floor?

27. What would Earth be like without the ocean?