

# Ocean WebQuest Task Sheet

PLEASE REMEMBER TO WRITE IN COMPLETE SENTENCES EXCEPT FOR FILL-IN THE BLANK QUESTIONS.

<http://www.mos.org/oceans/motion/wind.html>

1. The size of a wave depends on \_\_\_\_\_.
2. Waves travel \_\_\_\_\_ water, they do not take \_\_\_\_\_ with them.

<http://www.enchantedlearning.com/subjects/ocean/Waves.shtml>

3. Tsunamis are sometimes called tidal waves, and are different from surface waves: they are usually caused by

\_\_\_\_\_  
\_\_\_\_\_.

<http://www.mos.org/oceans/motion/currents.html>

4. What do you call the circular patterns in which the world's oceans travel?  
\_\_\_\_\_
5. What body of water can these patterns be compared to? \_\_\_\_\_
6. What else causes currents to flow? \_\_\_\_\_
7. Do all currents have the same characteristics? \_\_\_\_\_
8. What makes them different?  
\_\_\_\_\_
9. Describe the Gulf Stream by its characteristics.
10. Besides cold water what does the Humboldt current normally bring to the surface?

\_\_\_\_\_  
\_\_\_\_\_

<http://www.secretsatsea.org/story/3a.html>

11. For what are currents responsible?  
\_\_\_\_\_
12. Major ocean currents maintain their paths like \_\_\_\_\_.

<http://www.enchantedlearning.com/subjects/ocean/Tides.shtml>

13. Give a definition of tides and explain how what causes them.  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

<http://oncampus.richmond.edu/academics/education/projects/webunits/cycles/index.html>

14. Tides are created because the Earth and the moon are \_\_\_\_\_, just like \_\_\_\_\_ are attracted to each other. The moon tries to pull at anything on the \_\_\_\_\_ to bring it \_\_\_\_\_. But, the Earth is able to hold onto everything \_\_\_\_\_. Since the water is always moving, the Earth cannot \_\_\_\_\_ onto it, and the moon is able to \_\_\_\_\_ at it.
15. The side of the Earth that is facing the moon is where it is \_\_\_\_\_ tide. That is where the moon is \_\_\_\_\_ at the water. Since the Earth is \_\_\_\_\_, the area that the moon is pulling at changes. That is why the tides \_\_\_\_\_. If you are at the beach, and the moon is pulling on the ocean there, it will be \_\_\_\_\_ tide. If the moon is pulling at the ocean somewhere else, then it will be \_\_\_\_\_ tide at the beach where you are.
16. How do we know that the water nearest to the moon forms a bulge?  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
17. Where else does the water form a bulge?  
\_\_\_\_\_
18. How many tides are there each day? \_\_\_\_\_
19. How much time is there between tides? \_\_\_\_\_

<http://www.enchantedlearning.com/subjects/weather/hurricane/landfall.shtml>

20. What is a storm surge?  
\_\_\_\_\_  
\_\_\_\_\_
21. What can be the most dangerous part of a hurricane?  
\_\_\_\_\_

<http://www.geophys.washington.edu/tsunami/movies/globe.mov> (tsunami movie)

<http://www.lacoast.gov/education/FragileFringe/barriers.htm>

21. Although barrier islands, called spits in the northeastern United States, exist on all coastlines, they are most notable along the Gulf of Mexico and Atlantic coasts. They are the structures resulting from the movement of \_\_\_\_\_ by \_\_\_\_\_ and the \_\_\_\_\_. The seaward side of a barrier island is usually a sandy, beach-like area. This area \_\_\_\_\_ and \_\_\_\_\_ in size with changes in

seasonal \_\_\_\_\_ and \_\_\_\_\_ which carries sand into and away from the sandy shore.

22. Use your newfound knowledge (and your textbook) to construct a chart on white computer paper. This chart should have four components: waves, tides, currents and storms. In each section describe how that type of water movement shapes the shore and include an illustration of each as well.

<http://www.ocean.udel.edu/extreme2002/>

23. Dive in mission to the abyss: go to seafloor geology then click on the Quicktime video to see a real undersea volcano. Click on The Deep Ocean, Mid-Ocean Ridge, Plate Tectonics and Hydrothermal Vents. Pay attention and take notes on things you'd like to include in your model of the ocean floor. Remember your model should include: continental shelf/rise/slope, mid-Atlantic ridges, rifts and trenches.

[http://projects.edtech.sandi.net/valencia/explore/ocean\\_layers.html](http://projects.edtech.sandi.net/valencia/explore/ocean_layers.html)

24. Sketch the diagram at this site to help you in building your ocean floor model.

<http://www.enchantedlearning.com/subjects/astronomy/planets/earth/Continents.shtml>

25. You have been given two diagrams. Read the definitions then label the outer layers of the Earth and the seafloor spreading (plate divergence) diagrams.

<http://www.enchantedlearning.com/subjects/astronomy/activities/radiobuttonquiz/Tectonicspz.shtml>

26. Take this on-line quiz about plate tectonics. Record your score here \_\_\_\_\_.

<http://www.amnh.org/nationalcenter/expeditions/blacksmokers/gallery.html>

27. At this site view underwater photos and video clips from ocean floor volcanoes called smokers. Which of the three videos is best. Fully describe what is happening in the video you selected as being best.

[http://www.windows.ucar.edu/tour/link=/earth/interior/plate\\_tectonics.html](http://www.windows.ucar.edu/tour/link=/earth/interior/plate_tectonics.html)

28. This picture shows how the rigid outer layer of the Earth, called the \_\_\_\_\_, is made of plates which fit together like a jigsaw puzzle.

29. Of what are these plates made? \_\_\_\_\_

30. What allows the plates to "float" on top of the denser material?

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<http://www.mos.org/oceans/planet/features.html>

31. What is the Average Depth of the ocean?

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32. What is the Deepest point and where is it?

\_\_\_\_\_

33. What is the highest Mountain and where is it?

\_\_\_\_\_

34. Around most continents are shallow seas that cover gently sloping areas. What are these areas called? \_\_\_\_\_

\_\_\_\_\_

35. Where do the continental shelves end?

\_\_\_\_\_

36. What is beyond the continental slope? \_\_\_\_\_

37. Describe the abyss in a complete paragraph.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

38. What are the deepest parts of the oceans called?

\_\_\_\_\_

