

When the Tide Comes In: Tides WebQuest

Introduction:

Have you ever visited the ocean? Have you ever built a sand castle and then watched the waves get closer and closer until they start washing away the outer wall of your sand castle. Bit by bit your castle starts to crumble into the sea. Slowly the waves come higher and higher up the beach until your entire sand castle is washed away. The tide has come in.

But why does that happen? What is the tide?

Instructions:

A treasure hunt is a fun way to find information on the Internet in order to answer some questions.

This Treasure Hunt is about the **Ocean Tides**. It will lead you to some web pages about the tides. Click on each Internet link and read carefully before answering each question. You may not always need to read the whole web page to find the answer. Answer each question in a complete sentence on the answer sheet.

Have fun surfing!

1. What does the word tide mean?

URL: <http://co-ops.nos.noaa.gov/restles1.html>

2. What is a high tide? What is a low tide?

URL: <http://studyjams.scholastic.com/studyjams/jams/science/weather-and-climate/tides.htm>

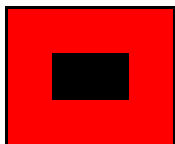
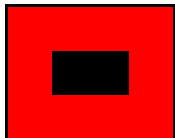
3. What two objects in our sky cause ocean tides? Which has the greater effect?

URL: <http://www.onr.navy.mil/focus/ocean/motion/tides1.htm>

4. What is a tidal range?

URL: <http://www.onr.navy.mil/focus/ocean/motion/tides1.htm>

5. What is a spring tide? Explain what causes a spring tide?
URL: <http://www.onr.navy.mil/focus/ocean/motion/tides1.htm>
6. What is a neap tide? Explain what causes a neap tide?
URL: <http://www.onr.navy.mil/focus/ocean/motion/tides1.htm>
7. How long is a tidal cycle?
URL: <http://www.ndbc.noaa.gov/educate/tides.shtml>
8. How many high tides normally occur each day? How many low tides normally occur each day?
URL: <http://studyjams.scholastic.com/studyjams/jams/science/weather-and-climate/tides.htm>
9. Why **DON'T** the normal number of high and low tides happen in some places? Name one place where this is true, and tell how many high or low tides happen there.
URL: http://oceanservice.noaa.gov/education/kits/tides/tides07_cycles.html
10. What is the most interesting thing you learned today about tides?
URL: any of the web pages we have already visited.



Bonus: Hurricane Sandy (2012) was affected by the moon phase and the tide at the time of the storm. Explain...