Name _____ Date _____ Per _____

WAVES WEBQUEST

What is a Wave?

Click on the link:
http://gpb.pbslearningmedia.org/asset/lsps07_int_waves/?utm_source=teachersdomain_redirect/asset/lsps07_int_waves/utm_medium=teachersdomain/asset/lsps07_int_waves/utm_campaign=td_redirects

1. Describe the motion of the wave of the people and the string. What type of wave is being demonstrated in these examples?

2. Under the "Demonstration" tab, experiment with different medium densities and wave controls. Describe the changes you observe as you adjust the different variables.

3. Under the "Water Waves" tab, watch the water waves animation and then explain the motion of a water wave

Click on the link: http://www.acs.psu.edu/drussell/Demos/waves/wavemotion.html

4. What are mechanical waves?

5. How do transverse waves differ from longitudinal waves?

6. Illustrate and give an example of transverse and longitudinal wave.

Click on the link: http://zonalandeducation.com/mstm/physics/waves/partsOfAWave/waveParts.htm

7. Sketch a diagram of a **transverse wave**. Be sure to label the crest, trough, positive amplitude, negative amplitude, and wavelength.

8. What does the straight line in a transverse wave represent?

9. What is **frequency** and what **unit** is it measured in?

10. On the website, try adjusting the frequency on the animation. Then explain how **frequency** and **wavelength** are related.

Click on the link:
http://www.classzone.com/books/ml_science_share/vis_sim/wslm05_pg18_graph/wslm05_pg18_graph.html

11. Experiment with the wave's frequency and amplitude. Observe what happens to the wavelength with each change you make. Write 4-5 complete sentences about your observations.

Explore the link: http://www.bbc.co.uk/bitesize/ks2/science/physical_processes/changing_sounds/play/

12. Follow the direction on the site. Write 3-4 sentences about what you learned.