Oceanography Inquiry Lab

Tic-Tac-Toe = Student Choice Activity

Instructions: Complete the activity as described in the middle box, and then choose two adjoining activities to complete using this Tic-Tac-Toe format. Draw a line through your selected choices. You may choose activities going across, going down, or going diagonally. This will be graded as a lab.

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| **Activity 1**:    Draw, label, and define the purpose of a jetty. Review the information and pictures found at: <http://education.nationalgeographic.com/education/encyclopedia/jetty/?ar_a=1> | **Activity 4**:  Compare and contrast ocean currents to roller coasters after watching the short National Geographic video titled  *Ocean Currents and Climate:*  *A roller coaster analogy to the ocean conveyor belt*  <http://education.nationalgeographic.com/education/media/ocean-currents-and-climate/?ar_a=1> | **Activity 7**:  Draw, label, and define the purpose of a jetty. Review the information and pictures found at: <http://education.nationalgeographic.com/education/encyclopedia/jetty/?ar_a=1> |
| **Activity 2**:  Imagine you are a scientist who just discovered a new animal in the crushing depths of the sea. Draw an image of your animal, name it, and write a description of its life.  Think about adaptations that help it survive.   1. What does it eat? 2. Does it have any predators? 3. Is it bioluminescent? | **Activity 5**:  Read the assigned book, and complete the accompanying questions on the answer sheet.  **MUST DO THIS ACTIVITY!** | **Activity 8**:    Research images of swimmers floating on the Dead Sea. Using your student Gmail account, type a short paragraph in Google Docs explaining why the Dead Sea is 10 times saltier than water in an ocean.  Share the document with thoak@campbell.k12.va.us |
| **Activity 3**:  Go to the following website and answer the questions below: <https://student.societyforscience.org/article/surf-watch>   1. How do surfers learn about waves and surf conditions? 2. Why is wind important when making wave predictions? 3. When did wave forecasting begin? 4. What does NOAA stand for? 5. Why is it hard to predict waves more than 36 hours in advance? 6. Why does Julie Cox say that surfers often end up being "kind of like scientists"? | **Activity 6**:  Draw and color a picture that illustrates how the bulges of ocean water move as the Earth rotates.  (Hint: Spring and Neap Tides) | **Activity 9**:  Review the following image and draw, color, and label a diagram of the ocean floor.  <https://geofrikphotos.files.wordpress.com/2013/02/ocean-floor.jpg>  Include the following:   1. coastal plain 2. continental shelf 3. continental slope 4. trench 5. ridge 6. sea mount/volcanic mountain 7. abyssal plain |