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| [https://sites.google.com/site/mrdearthscience/_/rsrc/1314640988245/unit-3-tectonics/plate-tectonics/Wegner.jpg?height=320&width=202](https://sites.google.com/site/mrdearthscience/unit-3-tectonics/plate-tectonics/Wegner.jpg?attredirects=0)  **Introduction:**  A Webquest is a way for you to explore a topic and find useful information to help you understand the topic. In this webquest, you will be visiting web sites that will help you better understand the Earth's interior, how heat is transferred, continental drift, plate tectonics and how these topics fit together.   **Task:**  This webquest will take you through a review of the Earth’s structure. When you come to an underlined link, click on it. The link will take you to another web site that will provide you with information on the section topic. After you read the entire web page, you will complete the questions which follow the link.  **Directions:**   * To begin your webquest, click on the following link and copy it to your desktop   **Inside Earth Work Sheet**wo   * Once you have successfully copied the worksheet, add your last name to the beginning of the title of the document to save it * Begin working on your worksheet , * Finally, share the document with Ms. Huckaby (arhuckab@episd.org)   sing a combination of the  **Part1: Earth's Interior**  Earth is many thousand kilometers in depth. If you could travel deep into the Earth's surface you would find it contains three main layers: the crust, the mantle and the core. To learn more about the layers of Earth, click on the following links and answer the questions that follow:   * + [Earth Layers Interface](http://www.harcourtschool.com/activity/science_up_close/606/deploy/interface.html)   + Go to [The Earth's Interior](http://library.thinkquest.org/17457/platetectonics/1.php)   + [Earth Guide](http://earthguide.ucsd.edu/eoc/teachers/t_tectonics/p_layers.html) Interactive Animation   Click on the [Volcano World](http://volcano.oregonstate.edu/vwdocs/vwlessons/lessons/Earths_layers/Earths_layers1.html) link. After reading each slide click the "next" button and proceed to read the next slide. When you have examined all of the slides, complete the questions on the "questions" slide.   * [Formation of Earth's layers](http://ircamera.as.arizona.edu/NatSci102/NatSci102/lectures/earth.htm)...   How do we know what we do about the structure of the Earth? |

**Part 2: Convection Currents and the Mantle**

Heat transfer is the movement of heat from a warmer object to a cooler object. There are three ways in which heat can be transferred: conduction, convection and radiation. Click on the links below and answer the questions that follow.

* + [Convection, Conduction and Radiation](http://www.mansfieldct.org/schools/mms/staff/hand/convcondrad.htm) (Try the link to the review game)
  + [Heat Transfer](http://www.school-for-champions.com/science/heat_transfer.htm)

Test your knowledge! Scroll down to the bottom of the Heat Transfer web page and take the "Mini Quiz".

As you already know, the Earth's mantle contains two layers: the asthenosphere (upper part of the mantle) and the lithosphere. Because of the intense pressure and temperature in the mantle, convection currents occur. To learn about what influences these convection currents have on Earth, read the web page below and answer the questions that follow:

* [The Mantle](http://mediatheek.thinkquest.nl/~ll125/en/mantle.htm)

**Part 3: Drifting Continents**

The theory of Continental Drift originated with the German scientist [Alfred Wegener](http://pubs.usgs.gov/gip/dynamic/wegener.html). He proposed that there was once a super continent called Pangaea. Wegener proposed that over time, the continents drifted apart, but he couldn't show how this happened. Read through the following links to learn about Wegener's theory of Continental Drift.

* + [Continental Drift](http://en.wikipedia.org/wiki/Continental_drift)
  + [Alfred Wegener](http://www.eoearth.org/article/Wegener,_Alfred) @ eoearth.org
  + More on [Wegener](http://www.ucmp.berkeley.edu/history/wegener.html) @ Berkeley

**Part 4: Sea-Floor Spreading**

The movement of plates caused by convection currents causes both constructive and destructive forces beneath the ocean floor. To learn more about this topic, click on the link below and answer the questions that follow:

* + [Sea-Floor Spreading](http://library.thinkquest.org/17457/platetectonics/4.php)
  + [Earth Guide Animation](http://earthguide.ucsd.edu/eoc/teachers/t_tectonics/p_seafloorspreading.html)
  + [Paleomagnitism](http://earthguide.ucsd.edu/eoc/teachers/t_tectonics/p_paleomag.html) earth guide interactive animation

**Part 5: The Theory of Plate Tectonics**

The Theory of Plate Tectonics was formulated in the 1960s and 1970s when new information became available about the Earth's interior. To learn more, click on the links below, read the web pages and answer the questions that follow.

* + [Plate Tectonics](http://www.cotf.edu/ete/modules/msese/earthsysflr/plates1.html)
  + [Convergent Boundaries](http://www.cotf.edu/ete/modules/msese/earthsysflr/plates2.html)
  + [Divergent Boundaries](http://www.cotf.edu/ete/modules/msese/earthsysflr/plates3.html)
  + [Transform Boundaries](http://www.cotf.edu/ete/modules/msese/earthsysflr/plates4.html)

Make sure that you've answered all of the web quest questions, neatly, using complete sentences which restate the question and with good grammar.

Send the completed document to me as an attachment…… Be sure to identify the subject as your (by including your name) assignment for Inside Earth.

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