**Earth’s Interior Study Guide**

| 1- What are the two different forms of evidence? What is an example for each? | Direct and indirect are two forms of evidence. Indirect is evidence from seismic waves. Direct is evidence from rock samples. |
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| 2- What are at least **three** pieces of evidence that scientists have learned from rock samples? | The scientists learn about the Earth’s structure and conditions in the Earth where rocks are formed, the rock samples provide clues and more information about Earth’s interior, and they also provide clues on how energy and matter flow there. |
| 3- What do seismic waves reveal to scientists? | Seismic waves reveal how they travel through the Earth and the paths reveal where the rocks form and change. |
| 4- How are P and S waves similar and different? | P and S waves are both waves. One can go through solid and liquid and one can just go through solid. |
| 5- What happens to heat and pressure as you go deeper into Earth? | The heat and pressure the deeper you go the hotter and more pressure goes on you. |
| 6- Name each layer of Earth, starting from Earth’s center. | Inner core, outer core, mantle, and crust. |
| 7- What is the thickness, composition and state of matter for the crust? | The crust is 5 - 40 km thick made of oxygen and silcoon and it's soft but solid. |
| 8- What is the thickness, composition and state of matter for the mantle? | The mantle is 3,000 kilometers or km thick, is made out of oxygen and silcoon like the crust and it is made out of a layer of hot rock and it’s hard and solid. |
| 9- What is the thickness, composition and state of matter for the outer core? | The outer core is 2,260 km thick and is made out of a layer of molten metal and its solid. |
| 10- What is the thickness, composition and state of matter for the inner core? | The inner core is 1,220 km thick and is a dense ball of solid metal and it is solid and hard. |
| 11- What are convection currents? | Convection currents are currents that are heating and cooling. Gravity moves them through a circle transferring convection. |
| 12- What three processes or forces combine to set convection currents in motion? Make sure to describe how each one has a role in how convection currents move. | Heat and cooling are used for the gravity and the density because for the density to start working heating and cooling must be set into motion and there needs to be water and get the process going, then finally gravity will make it into a circle of convection. |
| 13- Describe how our heat and water experiment demonstrated convection currents. | When we were pouring in the water and putting the dye in the convection currents were in the hot water and they were demonstrated because when we poured the water in the heating and cooling process happened so it started the density and made it into convection currents. |