

4th Grade

Earth & Space Science

Chapter 7 Lesson 1

Page	Question	Answer(s)	Links/Sources
222	Which layer of Earth do you see every day?	The Crust.	
223	What percentage of Earth's mass is the mantle?	84%.	
223	Who laid the foundations of the earth? When was the foundation laid?	The Lord. In the Beginning	
223	How do you think the moving mantle affects Earth's Crust?	Look for examples like, earthquakes, makes mountains, opens volcanoes.	
224	Which layer of Earth did God clothe with a living carpet? What is your favorite thing that grows on this layer?	The Crust. Answers will vary.	
224	What other materials show differences in density?	Concrete... b/c of the variety of materials in it. Granola... same reason.	
224	Where does Earth's Crust come from?	From liquid hot magma escaping lower layers of Earth to solidify on the surface, or under water.	
224	How does the material move if you push on the surface slowly?	The material gives way like a liquid because the tiny pieces of cornstarch are acting as charged particles that push away from each other.	
224	How does the material move if you tap on it quickly?	It reacts like a solid because the greater force applied overcomes smaller forces in the charged cornstarch particles, so for that moment, you have a solid brick of cornstarch.	
224	Explain how this models the rock in the Earth's lower mantle?	The slower motions deep inside the Earth allow for more movement in the lower Mantle next to the Liquid Outer Core.	
225	How do tectonic plates fit together?	Tectonic Plates are bigger than puzzle pieces cut out of paper. They are more like a quilt of stretched out pieces of pizza dough where the seams lay on top or beneath one another for quite some distance.	
225	What Countries are on the North American Tectonic Plate	Eastern Part of Russia, Half of Iceland, Greenland, California, USA, Mexico, Bahamas, Cuba, Azores.	

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226	How could a conveyor belt represent tectonic plate movement?	After moving from start to finish it goes back under the crust where process of convection gets it going again.	
227	Using 100m Soccer fields as a measuring stick.	The Crust is 10km thick... this is 100 soccer fields. The Mantle is 2,900km, minus 10km of Crust, thick. 2,890km divided by 100m is 28,900 soccer fields. The Liquid Outer Core is 5,150km minus 2,900km thick. So, 2,250km divided by 100m is 22,500 soccer fields. The Solid Inner Core is 6,370km minus 5,150km or 1,220 km. Divided by 100m equals 12,200 soccer fields thick.	
227	Why is it impossible to dig a hole through the Mantle to the Core?	Because the Mantle is liquid. You can't dig a hole through water. And if you tried encasing your hole in a pipe, the pipe would melt; even if it was made of concrete.	