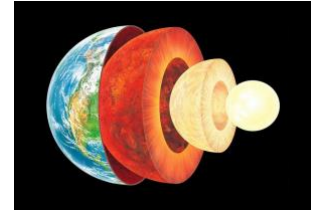


**Science V10/S4: The Earth's Layers**

Every day we walk on the Earth, but have you ever thought about what lies beneath the surface of the Earth? The earth is made up of 4 layers: the crust, the mantle, and the outer and inner cores.







The layers of the earth can provide scientists clues to how the earth formed. When the earth came into existence, it did so by accreting particles. To accrete means for different particles to come together into one mass. Scientists want a clean sample of the earth's mantle so they can study the exact particles that created the earth.

No human has ever reached the innermost layers of the earth. In 1961, a group of geologists (scientists that study the earth's materials) attempted to reach the earth's mantle by drilling a hole off of the pacific coast near Baja California. Scientists were met



with a string of bad luck, broken machinery, and budget cuts due to space exploration. However, efforts to drill into the mantle have resumed in different parts of the world. Parts of the earth's mantle exist but they are not considered clean because they have interacted with other particles while coming up to the earth's surface.

**Quick Facts About the Earth's Layers**

Facts	Crust	Mantle	Outer Core	Inner Core
Image				
Thickness	5 to 70 km	2,900 km	2,200 km	1,230- 1,530 km
Materials	Continents and Oceans	Semi-liquid	Liquid Iron and Nickel	Solid Iron and Nickel
Temperature	200°C/392°F	3,700°C/6,692°F	4,500°C/8,132°F	5,400°C/9,800°F