

**INVESTIGATION QUESTION**

How does the thickness of each Earth layer compare to the others, and what does that tell us about how Earth formed?

**HYPOTHESIS**

Hint: try writing it as "If \_\_\_\_, then \_\_\_\_, because \_\_\_\_."

**Layer Data Table**

Layer	Thickness (km)	Main Material	Solid or Liquid?
Crust			
Mantle			
Outer Core			
Inner Core			
<b>Total (Earth's radius)</b>			

**Calculate**

What percentage of Earth's total radius does each layer take up?

Show your work. Crust: \_\_\_\_% Mantle: \_\_\_\_% Outer Core: \_\_\_\_% Inner Core: \_\_\_\_%

**ANALYSIS**

*Which layer surprised you the most in terms of thickness? Why?*

**CONCLUSION**

*Why do you think heavier materials like iron ended up in the center of Earth rather than on the surface?*

**CONNECT IT**

*Inge Lehmann discovered the inner core in 1936 by studying earthquake waves. What property of waves allowed her to figure out that the inner core is solid? (Hint: look up P-waves and S-waves.)*

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**THINK FURTHER**

*Earth's magnetic field is generated by the movement of liquid iron in the outer core. What would happen to life on Earth if the magnetic field disappeared?*

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**ADDITIONAL NOTES**

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