



Snack Tectonics

On Earth, there are 3 main types of plate boundaries. These help to shape the way our planet looks as well as to recycle the crust. These plate boundaries are responsible for many geologic features we see and experience. Today, you will use food items to represent the different plate boundaries.

Objective: Develop and use a model to illustrate that energy from the Earth's interior drives convection which cycles Earth's crust leading to melting, crystallization, weathering and deformation of large rock formations, including generation of ocean sea floor at ridges, submergence of ocean sea floor at trenches, mountain building and active volcanic chains.

I CAN.... make and draw a model of each type of plate boundary and explain the different geologic features and events that happen at each type.

Key:

Item	What it represents			
Frosting	Magma in the Mantle			
Graham Crackers	Continental Crust			
Fruit Roll Ups	Oceanic Crust			
Boundary	Draw a picture of what it looked like.	Direction of plate movement (use arrows)	What are the geologic structures that are created? What geologic events happen?	Is the crust being created, destroyed, or neither?
1. Divergent				
2. Continental-Oceanic Convergence				
3. Continental-Continental Convergence				
4. Transform				

Analysis Questions:

1. What is subduction?

2. What features form where subduction occurs?

3. Which type of boundary does not create or destroy any crust?

4. What features are formed when 2 continental plates converge?

5. What happened between the graham crackers in the Transform model? Did they move easily or was there resistance?

6. What kind of boundary forms a deep ocean trench?

7. What geologic features are created at a Divergent boundary?
 - Continental - Continental:

 - Oceanic - Oceanic:

8. What layer of the earth does the icing represent?