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| LESSON 5 SUMMARY TABLE |
| WHAT ARE WE INVESTIGATING? |
| **HOW DO THE PLATES INTERACT?** |
| What did we do? | What did we observe? | What have we figured out so far? | How does this help answer our question? (How is the Earth Changing?) | What additional questions do we have for our DQB? | What questions do we think we have figured out from our DQB? |
| Graham cracker/gelatin activity:Placed a cube of gelatin on the top of one square of graham cracker. Rubbed another graham cracker alongside it.  | As we moved the graham cracker, the gelatin jiggled and the graham cracker crumbled. Some of the gelatin fell apart.As they slid past, they got stuck, then slipped and moved.  | * The movement of plates causes earthquakes.
* Rock can break off during an earthquake.
* Plates can slide past one another (transform boundary)
* No magma or volcanic activity at transform boundaries.
* Continents are part of plates, they don’t sit on top.
 | We know that plate movement causes changes in the Earth and now we understand how plates move. The changes in the Earth are mountains, volcanoes, oceanic trenches form and get bigger. Mid-ocean ridges form. Earthquakes can cause changes to the Earth and rock to break.  | What caused volcanoes to become dormant or extinct?How do volcanoes erupt?How fast do plates subduct?How fast do plates move?How long does it take for gas to escape from magma?Does subduction ever stop?How far down into the mantle does the plate go?Can plates change direction?How many earthquakes happen at transform boundaries? | What direction do plates move?What elements are in the core?What causes plates to move?When do plates move?How do plates interact?What type of rock makes up the plates?What heats the mantle?Does the size of the plate matter?What features did the plates form? |
| Reading “Ring of Fire”Volcano videos | * There are patterns of earthquakes and volcanoes
* Volcanoes and oceanic trenches are found along the ring of fire.
* Oceanic plate subducts continental plate.
* Part of the subducting oceanic plate melts…the rock rises through cracks to form volcanoes.
* Oceanic trenches form where one plate subducts another.
* In the middle of the ocean where plates pull apart magma rises forming new rock.
 | * Oceanic plate is denser than continental plate so it always subducts.
* When plates collide and subduct volcanoes and trenches form
* Oceanic plates subduct oceanic plate (evidence of volcanoes and ocean trenches at oceanic-oceanic plate boundaries.

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| What did we do? | What did we observe? | What have we figured out so far? | How does this help answer our question? | What questions do we think we have figured out from our DQB? |
| Mrs. Lafrate pushed two towels together | The towels folded and pushed up as they were pushed together.  | When plates collide they can form folded mountains. Continental-Continental collisionsSCIENTIFIC PRINCIPLE:Plates move in different ways. They slide past each other, collide, subduct, and move away from one another. This movement forms some of Earth’s features, such as mountains, Mid-Ocean ridges, oceanic trenches and volcanoes.  |  |  |
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