**Candy Bar Tectonics** Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Starting from the flat side of the Milky Way,(up-side down) push your clear stray through the candy bar. Remember to keep the candy bar on the desk as you do this. Make sure the straw/drill has gone completely to the other side of the candy bar, now remove your sample of the candy bar. There should be four distinct layers (chocolate, nougat, caramel and chocolate) within your straw.
2. Label the parts of the candy bar to correspond to the layers of the Earth.

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Word Box

Chocolate 1 Mantle Crust Outer Core

Nougat Carmel Inner Core Chocolate 2

3. Use your fingernail to make small cracks in the surface of your “Earth” or candy bar.

What do we call the cracks in the Earth’s surface? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

What do we call the large pieces of Earth’s crust between the cracks? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4. Tension is a force that pulls on the plates of Earth’s crust causing them to move apart. Slowly pull on the ends of your candy bar .Draw and label what you see happening to your chocolate/crust.

What forces could cause tension on the Earth’s crust causing the plates to move apart?

Where does this force come from to cause tension on the Earth’s crust?

5. Compression is a force that pushes on the plates of Earth’s crust causing them to move together. Slowly push on the ends of your candy bar. Draw and label what you see happening to your chocolate/crust.

What force could cause compression on the Earth’s crust causing the plates to move together?

Where does this force come from to cause compression on the Earth’s crust?

5. Shearing is a force that pushes on the plates of Earth’s crust causing one to move in one direction and the other plate in the opposite direction. Slowly push one way on one end of your candy bar and push the opposite direction on the other end. Draw and label what you see happening to your chocolate/crust.

What force could cause shearing on the plates of the Earth’s crust causing the plates to move in opposite directions?

Where does this force come from to cause shearing on the Earth’s crust?