**Plate Tectonics**

***Part 1. PhET Simulation:***

*1)*

|  |  |
| --- | --- |
| *Continental Crust* | *Oceanic Crust* |
|  |  |

2) Investigate convergent boundaries (green arrows). Report your findings in the following table:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Left Side Crust | Right Side Crust | Which Crust is Denser? | Which Crust Subducts? | Do non-volcanic Mountains Form? | Does a Trench Form? | On Which Crust Do Volcanoes Form? | Sketch |
| Continental | Continental |  |  |  |  |  |  |
| Continental | Old Ocean |  |  |  |  |  |  |
| Old Ocean | Continental |  |  |  |  |  |  |
| Continental | Young Ocean |  |  |  |  |  |  |
| Young Ocean | Continental |  |  |  |  |  |  |
| Old Ocean | Young Ocean |  |  |  |  |  |  |
| Young Ocean | Old Ocean |  |  |  |  |  |  |

1. Describe the relative motion of the plates at ALL convergent plate boundaries.
\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Look for patterns in density, subduction, and volcanoes in the table. When volcanoes form, on which plate do they always form? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Investigate divergent boundaries (red arrows). Which are the only type of plates that divergent zones can occur at? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. What is generated at ALL divergent plate boundaries? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_