**Seismic Waves Intro Resource**  Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Use the following resource to answer the questions: <https://www.acs.psu.edu/drussell/demos/waves/wavemotion.html>

Longitudinal Waves:

1. Compare the movement of the particles to the movement of the energy/wave.
2. What are the first waves to reach the surface after an earthquake? Why are these waves first?

Transverse Waves:

1. Compare the movement of the particles to the movement of the energy/wave.
2. What are the second waves to reach the surface after an earthquake? Why are these waves second?

Water Waves:

1. Describe the movement of the particles in water waves.

Rayleigh Waves:

1. Describe the movement of the particles in a Rayleigh wave.
2. When do Rayleigh waves arrive once an earthquake has occurred?
3. Why do Rayleigh waves cause the most damage?

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1. What are the two main ways geologist study the Earth’s interior?

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1. What two pieces of information from seismic waves give geologists clues about the structure of our planet.

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1. Geologists have found that the paths of seismic waves change when the waves reach specific depths inside the Earth. What can you infer about Earth’s structure from this observation?