Physical Science

Types of Waves WS Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. What is a wave?
2. What is a medium?
3. Compare and contrast (tell how they are alike and different) a mechanical wave and an electromagnetic wave.
4. Give an example of a mechanical wave and the medium that it uses.
5. What is an example of an electromagnetic wave?
6. Summarize (at least 3 sentences) how a wave is like a series of vibrations.
7. Complete the table below over transverse and longitudinal waves

|  |  |  |
| --- | --- | --- |
| Characteristic | Longitudinal Wave | Transverse Wave |
| Does the wave require a medium? |  |  |
| What direction does the wave moved compared with the movement of the medium |  |  |
| Draw a picture of the wave |  |  |
| What is one example of this type of wave? |  |  |

1. What is a surface wave?
2. Describe a situation that demonstrates that water waves carry energy.
3. For each of the following waves identify their medium
   1. Ripples on a pond
   2. The sound waves from a stereo speaker to your ear
   3. Seismic waves