**ALWAYS, SOMETIMES, NEVER TRUE**

**Directions:**

Read each statement and decide whether it is always, sometimes, or never true. In the space provided add rationale to support your thought.

1. Waves are visible.

|  |  |  |
| --- | --- | --- |
| Always | **Sometimes** | Never True |

Sound waves are not visible\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Waves can be used to describe the behavior of less obvious things like light, TV and radio signals, and cell phone data signals as they travel from one location to another.

|  |  |  |
| --- | --- | --- |
| **Always** | Sometimes | Never True |

1. There are patterns in waves.

|  |  |  |
| --- | --- | --- |
| **Always** | Sometimes | Never True |

1. Waves are not affected by their environment.

|  |  |  |
| --- | --- | --- |
| Always | Sometimes | **Never True** |

1. A wave can be thought of as a disturbance that travels through something, accompanied by a transfer of energy.

|  |  |  |
| --- | --- | --- |
| **Always** | Sometimes | Never True |

1. Waves travel through solids.

|  |  |  |
| --- | --- | --- |
| Always | **Sometimes** | Never True |

Waves can be reflected and not penetrate; how far they travel depends on how much energy the wave carries.

1. Radio waves can travel through the vacuum of space.

|  |  |  |
| --- | --- | --- |
| Always | **Sometimes** | Never True |

There is a special type of wave (electromagnetic wave) that does not need to travel through matter.

1. Sound waves need to travel through a medium.

|  |  |  |
| --- | --- | --- |
| **Always** | Sometimes | Never True |

1. Amplitude and Frequency affect the energy of a wave.

|  |  |  |
| --- | --- | --- |
| **Always** | Sometimes | Never True |