**LIGHT & SOUND**

**Practice Test**

1. Write definitions for the following terms:
   1. Wavelength:
   2. Frequency:
   3. Amplitude:
   4. Echo:
   5. Total Internal Reflection:
   6. Refraction:
2. How do wave properties change when a sound (you may use diagrams):
   1. Becomes higher pitched?
   2. Becomes softer in volume?
3. Fill in the missing words:

*Sound travels through a gas, through a liquid and through a solid.*

1. In the table below, compare the behaviour and properties of **longitudinal** and **transverse** waves and provide one example of each:

|  |  |
| --- | --- |
| **LONGITUDINAL WAVE** | **TRANSVERSE WAVE** |
|  |  |
| **EXAMPLE** | **EXAMPLE** |
|  |  |

1. Circle the correct values to complete this sentence:

Sound waves travel through air at approximately ***340 / 300 000 000*** metres per second, whereas light (also called electromagnetic) waves travel through a vacuum at approximately ***340 / 300 000 000*** metres per second.

1. Draw a labelled diagram to describe the Law of Reflection:
2. Use ray diagrams to explain the difference between how light interacts with a convex lens and a concave lens:
3. Using a diagram, describe what happens when white light passes through a prism:
4. Name the primary colours for light and demonstrate how they can combine to produce secondary colours.