*ACTIVITY 1: Use the PowerPoint presentation to complete the blank spaces below...*

**Light as a Wave**

Light travels in \_\_\_\_\_\_\_\_\_\_\_\_ lines at a \_\_\_\_\_\_\_\_ of just below \_\_\_\_\_\_\_\_\_\_\_ kilometres per second. \_\_\_\_\_\_\_\_\_\_\_ else can reach this \_\_\_\_\_\_\_\_\_ or travel faster than the speed of \_\_\_\_\_\_\_. Unlike sound, \_\_\_\_\_\_\_ does not require particles (such as those found in \_\_\_\_\_\_\_\_, air or gas) to \_\_\_\_\_\_\_\_ through. This means that light can pass \_\_\_\_\_\_\_\_\_ the vacuum of \_\_\_\_\_\_\_\_ while sound cannot. Light can do this because it transmits its \_\_\_\_\_\_\_ as a special type of \_\_\_\_\_\_\_\_—an electromagnetic wave. Two kinds of waves - classified as either \_\_\_\_\_\_\_\_\_\_\_ or \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.



**Visible light**

The **visible \_\_\_\_\_\_\_\_\_\_\_\_\_**is the **r**ed, **o**range, **y**ellow, **g**reen, **b**lue, **i**ndigo and **v**iolet (**\_\_\_\_\_\_\_\_\_\_\_\_\_\_**) seen in the \_\_\_\_\_\_\_\_\_\_. Each colour has a different \_\_\_\_\_\_\_\_\_\_\_\_ and a different frequency. Special cells called **\_\_\_\_\_\_\_\_\_** in the \_\_\_\_\_\_\_\_\_\_ of the eyes respond to \_\_\_\_\_\_\_\_\_\_\_ wavelengths and determine which \_\_\_\_\_\_\_\_\_\_ are seen.



**Explosions in space**



In sci-fi movies, \_\_\_\_\_\_\_\_\_\_\_\_\_ in space are usually \_\_\_\_\_\_\_\_\_\_\_\_ shown as being bright and \_\_\_\_\_\_\_\_\_\_\_. Although \_\_\_\_\_\_\_\_\_ can pass through a vacuum, \_\_\_\_\_\_\_\_\_\_\_ cannot. Explosions in space are \_\_\_\_\_\_\_\_\_\_ and visible but completely \_\_\_\_\_\_\_\_\_\_\_.

**Jam session beneath the sea**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_ seems to be a very \_\_\_\_\_\_\_ place to humans but this is because our \_\_\_\_\_\_\_ are normally full of \_\_\_\_\_\_\_\_\_. Divers often hear constant \_\_\_\_\_\_\_\_\_\_\_when in the sea. Although it \_\_\_\_\_\_\_\_\_ like bacon cooking, it is \_\_\_\_\_\_\_\_\_\_\_\_\_\_ the sound of shrimp cracking their \_\_\_\_\_\_\_\_\_, forming a small bubble that then ‘\_\_\_\_\_\_\_’. Scientists from Curtin University of WA have \_\_\_\_\_\_\_\_\_\_\_\_\_\_ thousands of underwater \_\_\_\_\_\_\_\_. Shrimp, fish and sea urchins form loud \_\_\_\_\_\_\_\_\_\_\_\_\_. Some sound like electric guitars, while others sound like \_\_\_\_\_\_\_\_\_\_\_, monkeys, lightning storms or a lion’s \_\_\_\_\_\_\_\_. It’s noisy because \_\_\_\_\_\_\_\_ travels further in \_\_\_\_\_\_\_\_\_ than it does in \_\_\_\_\_\_\_.