**Review for Optics and Waves Quest**

1. Label the trough, crest, amplitude and wavelength on the diagram, below.
2. On the line below, re-draw the image above, but the diagram must have short wavelengths and a high frequency.

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1. State the type of wave described:
2. The only wave we can see
3. The most dangerous wave
4. The wave with the lowest frequency
5. The wave with the highest frequency
6. The wave with the longest wavelength
7. The wave with the shortest wavelength
8. The colour with the shortest wavelength
9. Explain why we can see different colours.
10. Explain the process of reflection.
11. Label parts 1 to 6, which is the real and which is the virtual image?



1. Explain the process of refraction.
2. What are the differences between the images below? Label the F and F1 for each.



1. Explain how a sound wave is produced?
2. What type of frequency does a low pitched sound produce?
3. What is the decibel for a conversation?
4. What decibel can you get hearing loss with long exposures?
5. What decibel can cause immediate hearing loss?
6. What are differences between light and sound waves?