



Topic: Light & Sound

Optimal Age Groups: Junior

What is a wave? What does this word make you think of? You might think of the ocean, or maybe about waving goodbye to a good friend. But waves come in many forms and there are even some types of waves that are invisible to our eyes. Did you know that light and sound are made of waves? In fact, changing the properties of these waves gives us different types of light (such as colours in a rainbow) and different types of sound (such as different notes in a song).

But how do light and sound waves travel through the air?

In this session, we will talk about different wave properties such as wavelength and frequency. We will also explore how our eyes and ears are able to interpret these waves. Topics of inquiry include: What is the difference between a mechanical wave and an electromagnetic wave? How fast do light and sound travel? How do musical instruments work to produce different sounds? How are vibrations and musical pitches related?

Students will then get to put their knowledge to the test by creating kazoos and straw whistles. How does the pitch of your straw whistle change as your straw is shortened? When we have finished exploring different sounds, we will discover how different colours combine using colour chromatography. What happens when we mix two colours together? What about three or more?