


WEEK	TASK	TOP TIPS	TAKE IT FURTHER
1	Introductory Quiz on Light – Test your knowledge by completing the Quiz in your Teams area.	Think about how shadows are seen during the day. Where is the sun when you see shadows? Remember that the shape of a shadow changes as the sun moves across the sky. Why is that?	TIF Quiz on Light – Test your knowledge by completing the TIF Quiz in your Teams area.
2	Mirrors are used in so many areas of our everyday life. Write down 10 examples of where mirrors are used. For each one, write whether the mirror is being used for safety or for stopping theft or for fun . Try to give examples that are quite different from each other!	Mirrors are often used to see around corners. To help you, think of how a shop might use such mirrors to stop people stealing things. Think of how a soldier might use mirrors to see the enemy ahead of them while keeping themselves hidden.	“Two-way mirrors” are special mirrors that work as a mirror when viewed from one side but work like a window when viewed from the other side. Write down two situations where you think that using such mirrors is an advantage. Do you think that such mirrors are ‘sneaky’ and should they be allowed? Explain your answer.
3	Prisms are fun things to use. When white light is shone through a prism, lots of different coloured light rays are seen coming out of the other side. Two students were using a prism in the science laboratory. One student said that white light does not really exist. The other told him that he is silly! She said that white light does exist because she can see rays of white light entering the prism! Who do you think is right? Carefully explain your answer.	Remember that what we see is not always real! White light can definitely be seen as it goes into the prism. But white light does not come out of the prism. So, is white light just one ‘thing’ or is it made up of lots of different ‘things’?	TIF Quiz on Refraction – Test your knowledge by completing the TIF Quiz in your Teams area.
4	Quiz on Ultra Violet ‘light’ and X-Rays – Test your knowledge by completing the Quiz in your Teams area.	Remember that humans cannot see Ultra Violet light. However, some objects and some chemicals can absorb (take in) Ultra Violet light and then send it back out again as visible light.	TIF Quiz on Ultra Violet ‘light’ and X-Rays – Test your knowledge by completing the TIF Quiz in your Teams area.
5	Introductory Quiz on Sound – Test your knowledge by completing the Quiz in your Teams area.	Remember that you cannot hear sound in space. This is because something is missing in space that sound needs in order for it to travel.	TIF Quiz on Sound – Test your knowledge by completing the TIF Quiz in your Teams area.
6	Write down the names of AT LEAST six different musical instruments. Make sure you choose ones that are quite different from each other. For each one, explain HOW it makes sound.	Remember that some musical instruments work by air being blown through them, some work by being hit with an object and some work by having their strings plucked.	Choose three instruments from the main task opposite. For each one you have chosen, explain how the pitch of the sound is changed (i.e. how the musical notes are made to go higher or lower).

7	Advanced Quiz on Sound – Test your knowledge by completing the Quiz in your Teams area.	Remember that sound can pass through solids, liquids and gases. However, sound does not pass through them at the same speed. Also, sound can travel different distances when passing through solids, liquids or gases. These things help to explain why sound behaves differently when it passes through different things or through different substances.	<p>Look at this picture of an astronaut in a space suit standing on the moon. This is a real picture.</p>  <div data-bbox="1767 328 2045 429" style="border: 1px solid black; padding: 5px; display: inline-block;"> <p><u>This is NOT a trick question.</u></p> </div> <p>Now imagine that you were a superhero standing on the moon in front of this astronaut. You don't need to wear a spacesuit because you don't need to breathe air! If the astronaut talked inside his/her helmet, you would not be able to hear them. However, if you placed your ear against their helmet, you would be able to hear them. Try to explain the difference(s) between the two.</p>
8	Introductory Quiz on Static Electricity – Test your knowledge by completing the Quiz in your Teams area.	Remember that 'static' means 'not moving'. So, static electricity does not move. In the quiz, be careful not to confuse static electricity with current electricity, which DOES move.	A simple experiment to do at home! Stand in a room with a mirror (not the bathroom!) wearing your school jumper over your shirt. Make sure you have some space around you so you don't bump into things! Pull the curtains/close the blind and switch off the lights so that you are in complete darkness. While looking at the mirror in the darkened room, quickly lift your jumper over your head. You should see something happen for a second or so. Write down what you see and then try to explain why this happens.
9	Quiz on electrical circuits – Test your knowledge by completing the Quiz in your Teams area.	Remember that a circuit has a start and an end and both must meet at some point!	TIF Quiz on electrical circuits – Test your knowledge by completing the Quiz in your Teams area.
10	Quiz on series and parallel circuits – Test your knowledge by completing the Quiz in your Teams area.	Remember that if you break something in a series circuit, everything in the circuit will stop working.	TIF Quiz on series and parallel circuits – Test your knowledge by completing the Quiz in your Teams area.