**Summer 2 Self-isolation pack.**

We are currently learning about light. I have included the whole unit. Simply follow the links and complete the lessons. We will be covering the same content in class. It is worth downloading the lesson worksheet before the lesson, so that you can complete tasks alongside the teacher on the video.

Any questions: [stedmank@mayfield.portsmouth.sch.uk](mailto:stedmank@mayfield.portsmouth.sch.uk)

**Light.**

|  |  |
| --- | --- |
| **Lesson number/title** | **Core content** |
| 1  Light waves | * Describe some properties of light waves * Describe what happens when light meets a surface * Draw accurate light ray diagrams to illustrate light travelling and meeting different surfaces |
| Link | [Light waves (thenational.academy)](https://classroom.thenational.academy/lessons/light-waves-c5h38c) |
| 2  The electrical and chemical effects of light | * Identify variables to change, measure and control to test a hypothesis * Draw a table for repeatable results and process results appropriately * Write a conclusion for the data collected |
| Link | [The electrical and chemical effects of light (thenational.academy)](https://classroom.thenational.academy/lessons/the-electrical-and-chemical-effects-of-light-60vkce) |
| 3  Reflection | * Follow a method to test a given hypothesis * Make a conclusion from data collected * Process secondary data appropriately and use it to check for reproducibility * Draw accurate ray diagrams * Know the law of reflection |
| Link | [Reflection (thenational.academy)](https://classroom.thenational.academy/lessons/reflection-c5jp2r) |
| 4  Reflected images | * Apply the law of reflection to different scenarios * Describe properties of reflected images * Describe and explain specular and diffuse reflections |
| Link | [Reflected Images (thenational.academy)](https://classroom.thenational.academy/lessons/reflected-images-61gket) |
| 5  Refraction | * Draw the pathway light takes through a glass block. * Measure the angle of refraction using a protractor. * Describe and explain how refraction takes place using key words and phrases. |
| Link | [Refraction (thenational.academy)](https://classroom.thenational.academy/lessons/refraction-71hkgd) |
| 6  Vision | * Label the parts of the eye * Use ray diagrams to show how images are formed in pinhole cameras and the eye * Describe how an image is formed and how we see |
| Link | [Vision (thenational.academy)](https://classroom.thenational.academy/lessons/vision-c5jkcd) |
| 7  Correcting vision | * Safely carry out an eye dissection * Describe how the eye focuses on near and far objects * Explain the cause of long and short sightedness and how this can be corrected |
| Link | [Correcting vision (thenational.academy)](https://classroom.thenational.academy/lessons/correcting-vision-75k64c) |
| 8  Colours | * List the colours of the visible spectrum. * Describe how white light can be dispersed to give a range of different colours * Explain why we see objects as a particular colour. |
| Link | [Colour (thenational.academy)](https://classroom.thenational.academy/lessons/colour-cru3at) |
| 9  Filters | * Describe and explain how coloured filters change white light. * Predict the colours of coloured objects in coloured light |
| Link | [Filters (thenational.academy)](https://classroom.thenational.academy/lessons/filters-cmr66t) |