Th

**Big Ideas/Substantive Concepts**

Seeing

Shadows

Changing variables

Pupils should be taught to:

• recognise that they need light in order to see things and that dark is the absence of light

• notice that light is reflected from surfaces

• recognise that light from the sun can be dangerous and that there are ways to protect their eyes

• recognise that shadows are formed when the light from a light source is blocked by an opaque object

• find patterns in the way that the size of shadows change

Questions

Do we need light to see things?

How are shadows formed?

What happens to the size of a shadow when the object moves closer to, or away from, the light source?

**Key Vocabulary**

|  |  |
| --- | --- |
| **Tier 2** | **Tier 3** |
| absence | constant |
| cast (shadow) | dependent |
| impenetrable | independent |
| reflect | illuminate |
| shadow | translucent |
| source (light) | variable |
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|  |  |
|  |  |
|  |  |

Year 3: Light

**Resources:** [CUSP curriculum](https://www.unity-curriculum.co.uk/history/history-ks2/) and [Curriculum vision](https://www.curriculumvisions.com/indexHistory.html) resources for online non-fiction texts

Making connections to prior learning

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| **Year 3:**  Animals, including humans  Forces and magnets  Plants |

Working Scientifically

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| --- | --- | --- | --- |
| Ask relevant questions | Set up simple, practical enquiries and comparative fair tests | Make accurate measurements using standard units, using a range of equipment, eg. thermometers & data loggers | Gather, record, classify and present data in a variety of ways to help in answering questions. |
| Record findings using simple scientific language, drawings, labelled diagrams, bar charts and tables | Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions | Use results to draw simple conclusions and suggest improvements, new questions and predictions for setting up further tests | Identify differences, similarities or changes related to simple, scientific ideas and processes |

**Outdoor Learning Opportunities**

Alfresco Learning: Year 3: “Light”