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| **Lesson 1** | **Lesson 2** | **Lesson 3** | **Lesson 4** | **Lesson 5** |
| **Learning Objectives** | | | | |
| I can recognise that I need light to see things, and that dark is the absence of light. | I can investigate which surfaces reflect light | I can use a mirror to reflect light and explain how mirrors work. | I can investigate which materials block light to form shadows. | I can find patterns when investigating how shadows change size |
| **Knowledge Goals**  Children should be able to identify a range of light sources and be able to explain that dark is caused by the absence of light.  Children should also know that they need light to see things. | **Knowledge Goals**  Children can explain reflection and be able to identify reflective materials.  **Scientific Skills:**  Children can ask their own questions about what they observe and can select the most reflective material for a purpose. | **Knowledge Goals**  can explain why mirrors are good reflectors.  Children can use mirrors to reflect light onto different objects and be able to explain how mirrors work when carrying out different tasks.  **Scientific Skills:**  use a range of equipment, including thermometers and data loggers; ask their own questions about what they observe | **Knowledge Goals**  Children can explain how light travels.  They can sort different materials according to whether they are opaque, transparent or translucent.  **Scientific Skills:**  make systematic and careful observations; observe changes over time; use a range of equipment in an investigation into different shadows. | **Knowledge Goals**  Be able to explain how a shadow is formed.  **Scientific Skills:** where appropriate, take accurate measurements using standard units using a range of equipment.  Children can plan and set up an investigation into the way shadows change size.  They can observe patterns in the way shadows change size.  Be able to explain the patterns they find. |