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| Week 1  | Week 2 | Week 3 | Week 4 | Week 5 | Week 6  |
| WALT understand sources of lightWALT understand that we need light in order to see things and that dark is the absence of light. ‘Feely bag’ investigation.  | WALT understand shadows are formed when a solid object blocks light from a light source WALT use investigative skills to find out which materials block light to form shadowsTesting materials (opaque, transparent, translucent) What materials is best for Granny’s window?  | WALT use investigative skills to find out which surfaces reflect lightWALT understand that light is reflected from surfaces by choosing the most reflective materialBrilliant Bag Company Investigation | WALT use scientific skills to investigate patterns in the way that the size of shadows changeIndoor Shadows | Outdoor Shadows | WALT use a mirror to reflect light and explain how mirrors works (optional)WA LT know that light from the sun can be dangerous and that there are ways to protect our eyes |
| Key Vocabulary |
| Light, light sources, dark, shadows, reflective, reflect, mirror, transparent, opaque, translucent, sunlight, sunrays.In this unit, the children will learn about different sources of light, and that we need light to see. The children will work scientifically to investigate reflective materials, in the context of designing a new book bag. They will work in a hands on way to play a range of mirror games, finding out more about reflective surfaces. Furthermore, they will learn that the sun’s light can be dangerous, and will create an advert for a pair of sunglasses or a sun hat that they have designed. The children will have the chance to test, which objects are opaque in an investigation to design the most effective curtains, and will find out how shadows change when the distance between the object and light source changes. They will develop their scientific enquiry skills, making observations, predictions and conclusions. |
| Milestone Indicator |
| • Recognise that they need light in order to see things and that dark is the absence of light. (Week 1)• Notice that light is reflected from surfaces. (Week 3)• Recognise that light from the sun can be dangerous and that there are ways to protect their eyes. (Week 6)• Recognise that shadows form when a solid object blocks light from a light source. (Week 2 )• Find patterns in the way that the size of shadows change. (Week 4 and 5) Work ScientificallyAsk relevant questions.Set up simple, practical enquiries and comparative and fair tests. Make accurate measurements using standard units, using a range of equipment, e.g. thermometers and 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.Use straightforward, scientific evidence to answer questions or to support their findings. |