















Light: Reflective Surfaces

Aim: To notice that light is reflected from surfaces by choosing the most reflective material for a new book bag. I can investigate which surfaces reflect light.	Success Criteria: I can explain reflection. I can identify reflective materials. I can select the most reflective material for a purpose.	Resources: Lesson Pack Torch per pair A5 piece of white card per pair 6 materials to test such as CDs, tin foil, paper, different fabrics, bubble wrap, cardboard. Short film
	Key/New Words: light, source, dark, reflect, see, illuminate, visible.	Preparation: Testing Reflective Materials Activity Sheet - 1 per pair Choosing a Material Activity Sheet - 1 per child

Prior Learning: Children will have learnt about light sources in lesson 1.

Learning Sequence

	Reflective Materials: Watch short film to see how reflective surfaces and materials can be useful, especially when outside at night. While watching, ask the children to consider the questions on the Lesson Presentation . Discuss their ideas.	
	Reflecting Light: Use the Lesson Presentation to explain reflection and its uses. Address any misconceptions.	
	Design a Reflective Book Bag: Explain that the children have been asked to help design a new book bag with a reflective strip. They need to find the most reflective material for the bag. They should make a prediction and record it on their Testing Reflective Materials Activity Sheet .	
	Reflection Tester: Explain how to make a reflection tester using the Lesson Presentation . Give children time to make their reflection testers in pairs. The children should then work together, using their reflection tester to test the reflectivity of the different materials on their tables. Children use the Testing Reflective Materials Activity Sheet to put them in order from most reflective to least reflective.	
	Which Material Is Most Reflective? The children need to come to a conclusion as to which material would be best for the reflective strip on the new book bag. They should complete their differentiated Choosing a Material Activity Sheet to draw and label the material they choose, and explain why they have chosen it. <i>Look for children who have a good understanding of reflection, and who use their results to make their choice of material.</i>	
	 Provide children with key words to complete sentence starters.  Encourage children to identify the things all reflective materials have in common.	
	How Are All Reflective Materials Similar? HA children should give feedback on their thoughts to the class.	

Taskit

- Checkit:** Use a reflection tester to check whether your coat or bag reflects light well. Make sure your clothes make you easy to see in the dark!
- Designit:** Design a poster to tell people how to dress to be seen in the dark. Explain how to choose clothes that reflect light well.
- Spotit:** If you are going somewhere in the car when it is dark, look out for road signs, bike lights, cat's eyes or clothes that reflect light well. How do these help the driver?