Science- Light and Sound Rec to Y6

SCIENCE SKILLS REC to Y6 LIGHT AND SOUND							
	EYFS Skills	Key Stage 1 Skills		Lower Key Stage 2 Skills		Upper Key Stage 2 Skills	
	End of REC Expectations	End of Year 1 Expectations	End of Year 2 Expectations	End of Year 3 Expectations	End of Year 4 Expectations	End of Year 5 Expectations	End of Year 6 Expectations
Identifying and naming	**The World** •I look closely at similarities, differences, patterns and change **Early Learning Goal** •I know about similarities and differences in relation to objects, materials and living things •I can talk about changes			Identify that light is reflected from surfaces, using equipment such as mirrors to demonstrate.	Listen to and be able to identify a variety of familiar sounds and what is vibrating in each case.	Identify by investigation if and how light and sound travel through space, using specific examples to validate their thinking.	Identify parts of the eye and draw a diagram showing how light enters our eyes in order to see, using the correct scientific vocabulary
Phenomena				Recognise that dark is the absence of light and describe how light behaves.	Describe how sound travels through a medium to the outer ear and how sound is transferred to the inner ear.	Investigate shadows in relation to times of day and explain why the Sun appears to move across the sky.	Describe how white light can be split using prims and droplets of water and what colours white light is made from.
Physical processes				Explain that when a light source is blocked a shadow is formed.	Describe and demonstrate how the volume or pitch of a sound can be altered, using a range of equipment such	Describe the Earth's rotation to explain day and night.	Explain how light behaves and travels in straight lines. Demonstrate, using a model or diagram, how this explain why

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					as musical instruments.		we can see objects and how shadows are formed.
Classifying				Classify a range of objects as either light sources or light reflectors.	Investigate and classify materials for their ability to insulate against sound.		Classify a range of objects or surfaces for their reflective qualities using scientific testing.
Comparing				Compare how the size, shape and sharpness of shadows can change, using equipment or models.	Measure and compare the volume of sound at different distances from its source, using appropriate equipment.	Compare day lengths during different seasons and provide an explanation for why they differ.	Compare how a beam of light changes direction (refraction) when passing through different mediums, such as water and air.
Safety				Recognise that light from the sun is damaging for vision and the skin, and how we can protect ourselves.	Recognise that certain sounds can be damaging for hearing and identify ways in which the ear can be protected.	Recognise that it isn't safe to look directly at the Sun, even when wearing dark glasses.	Recognise the dangers of using lasers and how they can be used safely.