



STEMTASTIC	Y1	Y2	Y3	Y4	Y5	Y6
Leading Question	What can we make?	What can we make?	What can we make?	What can we make?	What can we make?	What can we make?
	Everyday Materials/Seasons	Use of everyday materials	Light/Forces and Magnets	Electricity and Sound	Earth, Space and Forces	Electricity and light
Depth in Science	distinguish between an object and the material from which it is made identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock describe the simple physical properties of a variety of everyday materials compare and group together a variety of everyday materials on the basis of their simple physical properties observe and describe weather associated with the seasons and how day length varies	identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching	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 compare how things move on different surfaces notice that some forces need contact between 2 objects, but magnetic forces can act at a distance observe how magnets attract or repel each other and attract some materials and not others compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials describe magnets as having 2 poles predict whether 2 magnets will attract or repel each other, depending on which poles are facing	identify how sounds are made, associating some of them with something vibrating recognise that vibrations from sounds travel through a medium to the ear find patterns between the pitch of a sound and features of the object that produced it find patterns between the volume of a sound and the strength of the vibrations that produced it recognise that sounds get fainter as the distance from the sound source increases Sound will be covered in Music lessons. identify common appliances that run on electricity construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit recognise some common conductors and insulators, and associate metals with being good conductors	describe the movement of the Earth and other planets relative to the sun in the solar system describe the movement of the moon relative to the Earth describe the sun, Earth and moon as approximately spherical bodies use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object identify the effects of air resistance, water resistance and friction, that act between moving surfaces recognise that some mechanisms including levers, pulleys and gears allow a smaller force to have a greater effect	recognise that light appears to travel in straight lines use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches use recognised symbols when representing a simple circuit in a diagram
Depth in DT and technical drawing	Making weathervanes and gauges.	Making insect homes/bird houses.	Making magnet games	Making games with circuits	Making rockets	TBC – thinking robotics!
Leading and supporting literature – Reading See teachers overviews for more literature.	<i>Materials at the Shops</i> by William Anthony <i>Materials at the Beach</i> by William Anthony <i>Materials at School</i> by John Wood	<i>Fundamental Science KS1 – Everyday Materials</i> by Ruth Owen <i>Everyday Materials (Ways into Science)</i> by Peter Riley <i>Bug Hotel</i> by Libby Walden	<i>Brain-Fizzing Facts, Awesome Science Questions Answered</i> by Dr Emily Grossman <i>Science is Magic</i> by Steve Mould		The Moon: Discover the Mysteries of Earth's Closest Neighbour by Dr. Sanlyn Buxner, Dr. Pamela Gay & Dr. Georgiana Kramer	Where does lightning come from? by Anna Clayborne



	<i>Materials at Play</i> by William Anthony <i>Materials at the Park</i> by John Wood <i>Materials at Home</i> by John Wood <i>The Weather Pop-up Book</i> by Maike Biederstaedt	<i>Bird House</i> by Libby Walden <i>Marvellous Machines</i> by Alom Shaha	<i>Magnets Push, Magnets Pull</i> by David Adler <i>A Ray of Light A book of Science and Wonder</i> by Walter Wick <i>Forces and Magnets</i> by Peter Blay		Dr Maggie's Grand Tour of the Solar System by Dr Maggie Aderin-Pocock & Chelen Ecija	
Writing	Fiction – Poetry Non-Fiction - Instructions	Fiction – Poetry Non-Fiction - Instructions	Fiction – Poetry Non-Fiction - Explanations	Fiction – Poetry Non-Fiction - Instructions	Fiction – Poetry Non-Fiction - Non- Chron. Report	Fiction – Poetry Non-Fiction – Gap filling.
Depth in RE 3 weeks	Who do Christians say made the world? (6 hours) How should we care for the world and for others and why does it matter? (6 hours)	Who is a Muslim and how do they live? Part 2 (6 hours) What makes some places sacred to believers? (6 hours)	What kind of world did Jesus want? (8 hours) How and why do people try to make the world a better place? (8 hours)	What does it mean to be a Hindu in Britain today? (8 hours) How and why do people mark the significant events of life? (8 hours)	Christians and how to live: What would Jesus do? (8 hours) What matters most to Humanists and Christians? (8 hours)	Why do Hindus want to be good? (8 hours) How does faith help people when life gets hard? (8 hours)