## Dovecote Primary Science Progression Document Substantive Knowledge, Key Vocabulary, Procedural Knowledge



	EYFS- Nursery	EYFS- Reception
See long term overview for : Substantive knowledge Procedural Knowledge	<ul> <li>Use all their senses in hands-on exploration of natural materials.</li> <li>Explore collections of materials with similar and/or different properties.</li> <li>Talk about what they see, using a wide vocabulary.</li> <li>Plant seeds and care for growing plants. Understand the key features of the life cycle of a plant and an animal.</li> <li>Begin to understand the need to respect and care for the natural</li> </ul>	<ul> <li>Explore the natural world around them</li> <li>Describe what they see, hear and feel whilst outside.</li> <li>Understand the effect of changing seasons on the natural world around them. Recognise some environments that are different to the one in which they live</li> </ul>
	<ul> <li>environment and all living things.</li> <li>Explore and talk about different forces they can feel.</li> <li>Talk about the differences between materials and changes they notice</li> </ul>	<ul> <li>Explore the natural world around them, making observations and drawing pictures of animals and plants.</li> <li>Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class.</li> <li>Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter</li> </ul>

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Theme						
	Develop (Y1)/ Deepen (Y2)		Develop (Y3)/ Deepen (Y4)		Develop (Y5)/ Deepen (Y6)	
Working	To ask simple questions and	I recognising that they can	To ask relevant questions a	nd use different types of	To plan different types of sc	cientific enquiries to
Scientifically	be answered in different ways.		scientific enquiries to answe	er them.	answer questions including	recognising and
,	To observe closely, using simple equipment. To		To set up simple practical enquiries, comparative and		controlling variables where necessary. To take	
	perform simple tests.		fair tests. To make systematic and careful observations		measurements, using a range of scientific	
	To identify and classify.		and, where appropriate, taking accurate		equipment, with increasing accuracy and	
	To use their observations ar	use their observations and ideas to suggest answers		measurements using standard units, using a range of		
	to questions. To gather and	record data to help in	equipment, including thermometers and data loggers.		To record data and results of increasing	
	answering questions.		To gather, record, classify and present data in a variety		complexity using scientific d	liagrams and labels,
			of ways to help in answering questions.		classification keys, tables, ar	nd bar and line
			To record findings using simple scientific language,		graphs.	
			drawings, labelled diagrams	s, keys, bar charts, and	To use test results to make	predictions to set up
			tables.		further comparable and fair	tests.
					To use simple models to des	scribe scientific ideas.

			To report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions. To use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions. To identify differences, similarities or changes related to simple scientific ideas and processes. To use straightforward scientific evidence to answer questions or to support their findings.		To report and present findings from enquiries, including conclusion, causal relationships and explanations of results, in oral and written forms such as displays and other presentations. To identify scientific evidence that has been used to support or refute ideas or arguments	
Types of Enquiry	Observation over time	Pattern seeking Identifying, (	classifying and grouping	Comparative and fair test	ing Research using sec	ondary sources
PLANTS and Living things in their habitats Substantive knowledge	Y1 Plants To know that a plant is a living thing. To know the names of parts of a plant. To know the names of different trees and how they differ from each other. To know that some trees are deciduous and others are evergreen, I can Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees, I can Identify and describe the basic structure of a variety of common flowering plants, including trees <u>Vocab</u>	Y2 Plants To know and explain how seeds and bulbs grow into plants. To know what a plant needs in order to grow and stay healthy. (water, light, suitable temperature) I can observe and describe how seeds and bulbs grow into mature plants. I can set up a test to find out how plants need water, light and a suitable temperature to grow and stay healthy. Vocab Roots, crown, deciduous Evergreen, blossom, bulb, trunk, stem, woodland, habitat, oxygen, germination,	Y3 Plants To know the relationship between the structure and the function of different parts of a plant. To know the requirements of plants for life and growth. To know the different stages of the life cycle of a flowering plant. I can identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers. I can compare the effect of different factors on plant growth and how it varies from plant to plant. I can investigate the way in which water is transported within plants.	Y4 Living things and their habitats To know the difference between invertebrates and invertebrates To know how to construct and interpret a food chain To know the difference between flowering and non- flowering plants To know that environments can change and that this can sometimes pose dangers to living things I can recognise that living things can be grouped in a variety of ways I can explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment	Y5 Living things and their habitats To know and describe the differences in the life cycle of a mammal, an amphibian, an insect and a bird To know specific facts about their life cycle. To describe the life process of reproduction in some plants and animals I can describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird I can use my local environment to observe life- cycle changes in a variety of living things I can find out about the work of naturalists and animal behaviourists	Y6 Living things and their habitats To know that living things are classified into broad groups (including micro- organisms) To use classification systems and keys to identify some animals and plants in the immediate environment I can describe how living things are classified into broad groups according to common observable characteristics I can give reasons for classifying plants and animals based on specific characteristics I can find out about the work of Carl Linnaeus
Procedural	Buds, bulbs, deciduous Evergreen, trunk, vegetable wild plants, environment blossom, petals, branches	reproduction Y2 Living things and their habitat To know that all living things	I can explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.	I can explore ways of grouping a selection of flowering and non-flowering plants I can explore examples of	I can find out about different types of reproduction in plants and animals. <u>Vocab</u>	<u>Vocab</u> micro-organism, vertebrates invertebrates, species,
Knowledge Key Vocab		have certain characteristics that are essential for keeping them alive and healthy. To know that living things depend on each other To create simple food chains I can explore and compare the differences between things that are living, dead, and things that have never been	<u>Vocab</u> Roots, stem, nutrients pollination, seed dispersal fertiliser, seed formation stigma, anther, soil	human impact (both positive and negative) on Environments. <u>Vocab</u> Habitat, environment, fish, amphibians, reptiles, birds, mammals, invertebrates, flowering plants, non-flowering plants, ecology,	Mammal, insect, amphibian, bird, life cycle, reproduction (sexual and asexual), environment, David Attenborough, Jane Goodall	fungi, bacteria, algae, Carl Linnaeus

		alive		deforestation,		
		I can identify that most living		classification		
		things live in habitats to which				
		they are suited and describe				
		how different habitats provide				
		for the basic needs of different				
		kinds of animals and plants.				
		and how they depend on each				
		other				
		L can name a variety of plants				
		i cali name a variety of plants				
		and animals in their habitats,				
		including micro- habitats.				
		I can create a simple food				
		chain				
		Vocab				
		Dinosaur, indigenous, rivers				
		Woodland, ponds, sea,				
		rainforest, desert, species				
		Microhabitats, habitat, food				
		chain				
	Y1 Animals including	Y2 Animals including	Y3 Animals including	Y4 Animals including humans	Y5 Animals, including	Y6 Animals including
DIOLOGI	Humans	Humans	humans	To know the main body parts	humans (this builds on the	humans
	To know which animals lay	To know what a balanced diet	To know the importance of	associated with the digestive	learning in Living things and	To know which organs
Animals.	eggs and which do not.	is.	nutrition	system and understand their	their habitat)	make up the circulatory
Including	To understand that animals	To know the importance of a	To know that animals	special functions	To know there are different	system
including	can be grouped as fish.	balanced diet for humans.	including humans, get	To know how to interpret a	stages in the growth and	To know that the blood
humans	amphibian, reptiles, birds	To know the importance of	nutrition from what they eat	variety of food chains.	development of Humans	transports oxygen around
	and mammals	hygiene for humans.	To know that humans and	identifying producers.	To know the changes	the body
	To know the basic parts of	To know that animals have	some other animals have	predators and prev	experienced in nuberty	To know how the heart
Substantive	the human body	offspring which grow into	skeletons and muscles for	preductors and prey	experienceu în pubercy	works and explain this
knowlodgo		adulte	support protection and			using key yesebulary
Kilowieuge	To use senses to	auuits	support, protection and	Lean identify the different	I can recearch the costation	To know that eventies
	compare different	Loop none the different	movement	t can identify the different	r can research the gestation	To know that exercise
	textures, sounds and	I can name the different		types of teeth in humans and	periods of other animals and	Increases the heart rate
	smells	stages that animals go	I can identify that animals,	their simple functions	comparing them with humans	and the impact that
		through from birth to	including humans, need the	I can compare the teeth of	I can draw a timeline to	exercise has on the body.
	I can identify and name a	adulthood	right types and amount of	carnivores and herbivores, and	indicate stages in the growth	To know how to perform
	variety of common animals	I can find out about the basic	nutrition	suggest reasons for differences	and development of	CPR and how to use a
	including fish, amphibians,	needs of animals, including	I can compare and contrast the	I can construct and interpret a	humans	defibrillator
	reptiles, birds and mammals	humans, for survival	diets of different animals	variety of food chains,		To know who William
	Identify and name a variety	I can describe the importance	I can find out how different	identifying producers,	<u>Vocab</u>	Harvey is and how his
	of common animals that are	for humans of exercise, eating	parts of the body have	predators and prey	Puberty, gestation	discoveries shaped our
	carnivores, herbivores and	the right amounts of different	special functions.		Reproduction, adolescence	understanding of the
	omnivores	types of food, and hygiene		<u>Vocab</u>	obese, Toddler, embryo,	heart.
	I can describe and compare the		Vocab	Pancreas, oesophagus,		
	structure of a variety of	Vocab	Nutrition, nutrients,	intestine, teeth, organ,		I can identify and name the
	common animals (fish.	Healthy, balanced diet, off-	carbohydrates, proteins, fats	molars, canine, food chain.		main parts of the human
	amphibians, reptiles, birds and	spring, reproduction. exercise.	(saturated/unsaturated).	predators, prev. producer.		circulatory system
	mammals, including nets)	nutrition, survival, hygiene	skeleton, muscles	carnivore, herbivore, salivary		I can describe the
	I can identify name draw	,, see thay hyperic,	Diet joint nelvis cartilage	gland		functions of the heart
	and label the basic parts of		rib cage tendon snine	Biglio		blood vessels and blood
	the human body and say		no cage, tenuon, spille			I can recognize the impact
Procedural	which part of the body is					of diat avarcise drugs and
Knowladge	which part of the body is					lifectule on the way their
Knowledge	associated with each sense					mestyle on the way their

	Vocab			bodies function
	fish, amphibians reptiles.			I can describe the ways in
	hirds mammals carnivara			which putriants and water
	birus, mammals, carnivore,			which nutrients and water
	herbivore			are transported within
	Omnivore, tame, wild			animals, including humans
	Necturnal head neck			
	Nocturnal, nead, neck,			
	arms, elbows, legs, knees,			<u>Vocab</u>
	face, ears, eves, hair.			blood vessels, drugs
	mouth tooth			atriume Milliam Harvey
	mouth, teeth			atriums, william Harvey
				Cardiovascular,
				ultrasound
				Cardiologists, capillarios
				Caruiologists, Capillaries
				Pulse, ventricles,
				veinsarteries. circulatorv
Key Vocah				sustom
Key Vocab				system
				Y6 Evolution and
				inhoritanco
				inneritance
				To know that fossils are
				the impressions of the
				romains of prohistoric
				remains of premistoric
				animals or plants
				embedded in rock and
				preserved in petrified
				preserved in petimed
				form
				To know that animals
				change over time and
				change over time and
				adapt to the surroundings
				in which they live.
				To know that
				characteristic traits are
				genetically passed to
				offspring from their
				normate and this is known
				parents and this is known
				as inheritance or natural
				selection.
				To know that animals
				change over time and
				adapt to the surroundings
				in which they live
				which ency live
				I can recognise that living
				things changed over time
				and that facile area ide
				and that tossils provide
				information about living
				things that inhabited the
				Forth millions of yours and
				Earth millions of years ago
				I can recognise that living
				things produce offspring of
				the same kind
				the same kind
				I can identify how animals
				and plants are adapted to
				suit their environment in
				suit their environment In

						different ways and that
						adaptation may lead to
						evolution
						<u>Vocab</u>
						off-spring, adaptation,
						genes, evolution,
						inheritance, genotype
						palaeontologist, syndrome
						Charles Darwin,
						chromosomes
CHEMISTRY	Y1 Everyday materials	Y2 Uses of everyday	Y3 Rocks	Y4 States of matter	Y5 Properties and	
	To know the names of different	materials	To know rocks, including	To know the differences	changes of materials	
	materials and name the	To know the correct	those used in buildings and	between solids, liquids and	To know the definition of	
	material of a variety of objects.	vocabulary to describe a	gravestones, might have	gases	mixture and solution and their	
	To know the physical properties	material.	changed over time.	To know the different states	differences.	
	of a variety of everyday	To know that the property of	To know now to identify	that water particles can exist in	To know the different features	
	materials and that they have	a material is now it behaves	and classify rocks	and now they can change state	of solids, liquids and gases.	
	opposite properties (e.g nard or	(solt, stretchy, waterproof.)	boug grains or spirstals, and	What happens to the particles	no know three different	
Substantive	and describe them	materials have different	whather they have fossils	To know about evanoration and	(filtering sieving and	
knowledge	and describe them.	nroperties	in them (and use	what hannens to the particles	evanorating)	
KIIOWIEuge		To know that materials are	microscopes or magnifying	To know about condensation	To know that some changes are	
	I can distinguish between an	what objects are made from.	glasses to investigate).	and what happens to the	reversible and some are	
	object and the material from	To know that suitability	To know how fossils are	particles	irreversible (dissolving, mixing	
	which it is made.	means having the properties	formed.	To know about freezing and	and changes of state)	
	I can identify and name a	that are right for a specific	To know that soils are	what happens to the particles	To know what happens when	
Procedural	variety of everyday materials,	purpose.	made from rocks and		different materials are put	
Knowledge	including wood, plastic, glass,	To know that Dunlop	organic matter.	I can compare and group	together and how certain	
·	metal, water, and rock	invented the rubber tyre.		materials together,	objects can change state.	
	I can describe the simple	To know that Charles	I can compare and group	according to whether they	To know what a magnet is, how	
	physical properties of a variety	Macintosh invented	together different kinds of	are solids, liquids or gases I	it works and which specific	
	of everyday materials.	waterproof fabric.	rocks on the basis of their	can observe that some	materials repel or attract.	
	I can compare and group	To know about the life of John	appearance and simple	materials change state when		
	together a variety of everyday	Dunlop and Charles	physical properties I can	they are heated or cooled,	I can compare and group	
	materials on the basis of their	Macintosh.	describe in simple terms	and measure or research	together everyday materials	
Key Vocab	simple physical properties.	To know that squashing,	how fossils are formed	the temperature at which	on the basis of their	
,	<u>Vocab</u> Materials wood plastic	twisting, bending and	when things that have lived	this happens in degrees	properties, including their	
	materials, wood, plastic,	of an object	L can rocognico that coils	Lean identify the part played	transparancy, conductivity	
	Liquid gas stratch stiff	of all object.	are made from rocks and	hy overoration and	(electrical and thermal) and	
	hend	L can identify and compare	organic matter	condensation in the water	response to magnets	
	Waterproof, shiny	the suitability of a variety of	Vocah	cycle and associate the rate	Know that some materials	
	,	everyday materials, including	Fossil, soil, crystals	of evaporation with	will dissolve in liquid to	
		wood, metal, plastic, glass.	Sedimentary.	temperature	form a solution. and	
		brick, rock, paper and	metamorphic	· · · · · · · · · · · · · · · · · · ·	describe how to recover a	
		cardboard for particular uses	Igneous, organic matter	<u>Vocab</u>	substance from a solution	
		I can find out how the shapes	-	water vapour, condensation	I can use knowledge of	
		of solid objects made from		precipitation, evaporation	solids, liquids and gases to	
		some materials can be		substance, matter, lava, solid	decide how mixtures might	
		changed by squashing,		liquid, gas, substance	be separated, including	
		bending, twisting and			through filtering, sieving	
		stretching			and evaporating	

PMYSICAL       YE Second Change       YE Sight       YE Second Change       YE Sight         PMYSICAL PROCESSES       Takeon the four assister and the second the			Vecab			Cive reasons based on	
PHYSICAL       Y1 Second Dange       Y1 Light       Y1 Light       Y1 Light         PhySICAL       Y1 Second Dange       Y1 Light       Y1 Light       Y1 Light         PhySiCAL       Y1 Second Dange       Y1 Light       Y1 Light       Y1 Second Dange       Y1 Light         PhySiCAL       Y1 Second Dange       Y1 Light       Y1 Second Dange       Y1 Light       Y1 Light         PhySiCAL       Y1 Second Dange       Y1 Light       Y1 Second Dange       Y1 Light         PhySiCAL       Y1 Second Dange       Y1 Light       Y1 Second Dange       Y1 Light         PhySiCAL       Y1 Second Dange       Y1 Light       Y1 Second Dange       Y1 Light         To know the four second Dange       To know the four second Dange       Y1 Light       Y1 Second Dange       Y1 Light         To know the four second Dange       To know the four second Dange       Y1 Light       To know the four second Dange       Y1 Light         To know the four second Dange       To know the four second Dange       To know the four second Dange       Y1 Light         To know the four second Dange       To know the four second Dange       Y1 Light       To know the four second Dange       Y1 Light         To know the four second Dange       To know the four second Dange       Y1 Light       To know where second Dange			Vocab				
Martines       Martines <td< th=""><th></th><th></th><th>Mietal, plastic, wood, Charles</th><th></th><th></th><th>evidence from comparative</th><th></th></td<>			Mietal, plastic, wood, Charles			evidence from comparative	
Physical processing spatial sectors         YS sectors         YS between the sectors			Macintosh			and fair tests, for the	
PHYSICAL       Y1 Sestonal Change       Y3 Light       Y4 Sound       Y5 Forces       Y6 Light         PHYSICAL       Y1 Sestonal Change       Y3 Light       Y5 Sound       Y5 Forces       Y6 Light         PHYSICAL       Y1 Sestonal Change       Y3 Light       To know that darkings in the above set to the above the to the above set to the above the			John Dunlop, squashing,			particular uses of everyday	
Joint McAdam       Joint McAdam       Image: Solar and Compare Solar an			bending, twisting. stretching			materials, including	
PHYSICAL PROCESSES       Y Seasonal Change To know what graves and that show is the show of the same show water is and the show is the show of the same show water is and the show is the show of the same show water is and the show is the show is the show of the same show water is and the show is the show is the show of the same show water is and the show is the show is the show of the same show water is and the show is the show is the show of the same show water is and the show is the show is the show of the show water is and the show is the show is the show of the show water is and the show is the show is the show of the show water is and the show is the show is the show is the show is the shade is of the show is the show of the show water is and the show is the show is the show is the shade is of the show is the show of the show water is and the show is the show is the show is the shade is of the show is the show of the show is the show is the shade is the show is the show is the shade is of the show is the show is the shade is of the show is the show is the shade is the show is the show is the shade is of the show is the show is the shade is of the show is the show is the shade is of the show is the show is the show is the show is the show is the show is the show is the show is the show is the show is the show is the show is the show is the show is the show is the show is the four show is the show is the show is the show is the four show is the show is the show is the four show is the show is the four show is the show is the four show is the show is the show is the show is the show is the show is the show is the show is the show is the show is the four show is the			John McAdam			metals, wood and plastic	
PHYSICAL PROCESSES       YI Seasonal Change transport and the some changes of tata are evaluated at a second change of tata are evaluated with burning and the action of a do burnon the of tange is not usaily reversible.       If seasonal Change of tata are evaluated at a second the tata are evaluated at a second and do tata are in the ad change of tata are evaluated with burning and the action of a do burnon the ad change of tata are evaluated to how the fail affore is and data are in the second the world.       Ye second the						I can demonstrate that	
PHYSICAL PROCESSES     Y3 Light     Y3 Light     Y4 Sound     Y5 Foreit     Y6 Light       PHYSICAL PROCESSES     Y1 Sessonal Change     Y3 Light     Y4 Sound     Y6 Sound     Y6 Light       To know the four sessons and changes in Autum To know thick obtains subble for different types of weather and birt Procedural Knowledge     Y3 Light     Y4 Sound     Y5 Foreit     Y6 Light       To know the four sessons and changes in Autum To know which obtains as subble for different types of weather and birt Procedural Knowledge     Y6 Sound To know which ages are more reflective To know that grants and the work at processing the object that produced it. To know what grants the object that produced it. To know what makes a force unblanced and the work at subble for different wasan the width the work and the work at subble for different wasan the object that produced it. To know what grants the object that produced it. To know what makes a force unblanced and the work at subble for different wasan the width the work and the work at there are patients between the picht to know what grants the object that produced it. To know what makes a force unblanced and the work at subble for different wasan the width the aver to know that there are patients between the picht to know that there are patients between the picht base the object that produced it. To know what series about light. To know what series about light to know what series and the width wot washes trants between t						dissolving, mixing and	
PHYSICAL PROCESSES     Y1 second Change to use object. To know that formation in years and changes in Autum PROCESSES     Y1 second Change To know that grants and changes in Autum To know that grants and changes in Autum To know that grants and changes in Autum To know that grants and thanges in Autum To know that friction is and what grants that a know grants that a know and and a satures that a know and grants that a know and and a satures that a know and and a satures that a know and grants that a know and and a satures that a know and and a satures that a know and grants that						changes of state are	
PHYSICAL PROCESSES       Y3 Sesonal Change       Y3 Light       Y4 Light       Y4 Sound       Y4 Sound       Y4 Light       Y4 Sound       Y4 Light       Y4 Light       Y4 Sound       Y4 Light       Y4 Light       Y4 Light       Y4 Light       Y4 Light       Y4 Sound       Y5 Force       Y6 Light         PHYSICAL PROCESSES       To honow that form sounds of soda       To honow that darkness is the and construction of new materials, subable for different vages       Y6 Light       To honow that form sounds and construction of new materials, subable for different vages       Y6 Light       To honow that form sounds and construction of new materials, subable for different vages       Y6 Light       To honow that a form is and construction of new materials, subable for different vages       Y6 Light       To honow that a form is and construction of new materials, subable for different vages       Y6 Light       To honow that a form is and honow that subable for different vages       To honow that a form is and construct how light trouge an opaque bipet. To honow that grades and througe han opaque bipet. To honow that fitten is and water was the is and water was the is and water was the construct and througe han opaque bipet. To honow that fitten is and water was the is is and water was the is and water was the is a						roversible changes	
PHSICAL PROCESSES       Y1 sesonal Change and that the kind of change is not usually reversible, indicating versible, indicating versible						leversible changes	
PHYSICAL PROCESSESV1 Seasonal Change to how the four seasona to how the four						I can explain that some	
PHSICAL       Y1 Sesonal Change       Y2 Light       Y4 Sound       Y5 Force       To know that change and that this do thange and the status of the watcher and the status of the status the status of the status of the status of the status						changes result in the	
PHYSICAL PROCESSESYI Seasonal Change is not usually revensible to about the four assonance of solubility, conduct/hity tansparency, findle biochonate of add on bicarbonate of biochonate of add on bicarbonate of add on bicarbonate of biochonate of add on bicarbonate of add on bicarbonate of biochonate of add on bicarbonate of add on bicarbonate of biochonate of add on bicarbonate of add on bicarbonate of bicarbonate of add on bicarbonate of add on bicarbonate of bicarbonate of add on bicarbonate of add on bicarbonate of bicarbonate of add on bicarbonate of add on bicarbonate of bicarbonate of add on bicarbonate of add on bicarbonate of bicarbonate of add on bicarbonate of add on bicarbonate of to know what add on a dod on bicarbonate of add on bicarbonate of to know what add on a dod on bicarbonate of add on bicarbonate of to know what add on a dod on bicarbonate of add on bicarbonate of to know what add on a dod on bicarbonate of add on bicarbonate o						formation of new materials,	
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weather symbol, deciduous     I can recognise that shadows     of them with something     parachutes.     I can use the idea that       coniferous     are formed when the light     vibrating     To know that some     light travels in straight		Temperature, thermometer		my eyes	are made, associating some	it impacts on objects like	straight lines
conjferous are formed when the light vibrating To know that some light travels in straight		weather symbol, deciduous		I can recognise that shadows	of them with something	parachutes.	I can use the idea that
		coniferous		are formed when the light	vibrating	To know that some	light travels in straight

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from a light source is blocked	I can recognise that vibrations	mechanisms, including	lines to explain that
by an opaque object	from sounds travel through a	levers, pulleys and gears,	objects are seen because
I can find patterns in the way	medium to the ear	allow a smaller force to	they give out or reflect
that the size of shadows	I can find patterns between the	have a greater effect.	light into the eye
change	pitch of a sound and features		I can explain that we see
<u>Vocab</u>	of the object that produced it	I can explain that unsupported	things because light
Reflection, shadows,	Find patterns between the	objects fall towards the Earth	travels from light sources
light source, opaque,	volume of a sound and the	because of the force of gravity	to our eyes or from
refraction	strength of the vibrations	acting between the Earth and	sources to objects and
periscope, nocturnal, orbits	that produced it	the falling object	then to our eyes
convex, concave	I can recognise that sounds	I can identify the effects of air	I can use the idea that
	get fainter as the distance	resistance, water resistance	light travels in straight
	from the sound source	and friction, that act between	lines to explain why
	increases	moving surfaces	shadows have the same
Y3 Forces and magnets	<u>Vocab</u>	I can recognise that some	shape as the objects that
To know that magnetic forces	Vibrating, pitch, volume	mechanisms, including	cast them
can act without direct contact,	Insulation, auditory	levers, pulleys and gears,	<u>Vocab</u>
unlike most forces, where	outer, middle and inner ear	allow a smaller force to have	light wave, light source
direct contact is necessary.	cochlea, frequency,	a greater effect	concave, convex, filters,
To know how different things	hammer	<u>Vocab</u>	lens
move and use this to group		Friction, gravity, parachute	retina, cornea, iris, pupil
them	Y4 Electricity	air resistance, levers, gears	
To know the effects of friction	To know a variety of common	water resistance, pulleys	Y6 Electricity
on different surfaces.	appliances that run on	Galileo, Newton	To know what the
To know how to investigate	electricity.		components in an
the strength of magnets	To know how to construct a		electrical circuit are, and
To know that magnets have	simple series electrical circuit,		their function.
two poles.	identifying and naming its basic		To know that the
To know that magnets attract	parts		brightness of a lamp or
some materials.	To know that a circuit must		the volume of a buzzer
	make a complete loop in order		can increase or decrease
	for components to work. And		with the number and
	that a switch can open or close		voltage of cells used in
I can compare how things	a loop.		the circuit
move on different	To know how to work safely		To know the recognised
surfaces.	with electricity.		symbols for electrical
I can notice that some forces	-		components and use
need contact between two	I can identify common		them in a simple circuit in
objects, but magnetic forces	appliances that run on		a diagram.
can act at a distance.	electricity.		To know how to work
I can observe how magnets	I can construct a simple series		safely with electricity.
attract or repel each other	electrical circuit, identifying		
and attract some materials	and naming its basic parts,		I can associate the
and not others.	including cells, wires, bulbs,		brightness of a lamp or the
I can compare and group	switches and buzzers.		volume of a buzzer with
together a variety of	I can identify whether or not a		the number and voltage of
everyday materials on the	lamp will light in a simple		cells used in the circuit
basis of whether they are	series circuit, based on		I can compare and give
attracted to a magnet, and	whether or not the lamp is		reasons for variations in
identify some magnetic	part of a complete loop with a		how components function.
materials	batterv		including the brightness of
I can describe magnets as	I can recognise that a switch		bulbs, the loud of buzzers
having two poles	opens and closes a circuit and		and the on/off position of

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		I can predict whether two	associate this with whether or	switches
		magnets will attract or repel	not a lamp lights in a simple	I can use recognised
		each other, depending on	series circuit	symbols when
		which poles are facing	I can recognise some common	representing a simple
		<u>Vocab</u>	conductors and insulators, and	circuit t diagram
		Magnetic pole, attract,	associate metals with being	<u>Vocab</u>
		repel	good conductors	Conductor, insulator,
		repulsion, friction, resistance		socket, components,
			<u>Vocab</u>	lamps, series circuits,
			Circuit, buzzers, conductor	cells, volts, generator,
			Battery, cells. Switch, socket	turbine, fuses, Thomas
			Appliance, series circuit,	Edison
			insulator	
			Y4 Earth and space	
			To know that the rotation of	
			the earth creates day and night	
			To know how the position of	
			the moon affects how much	
			light is reflected	
			To know that the Sun is a star at	
			the centre of our solar system	
			and that it has eight planets	
			To know that we are part of a	
			solar system that orbits the sun	
			To know that a moon is a	
			celestial body that orbits a	
			planet	
			I can describe the movement of	
			the Earth, and other planets.	
			relative to the Sun in the solar	
			system	
			L can describe the movement of	
			the Moon relative to the Farth	
			L can describe the Sun Farth	
			and Moon as approvimately	
			spherical hodies	
			L can uso the idea of the	
			Earth's rotation to evoluin day	
			and night and the apparent	
			and night and the apparent	
			the class	
			une sky	
			Orbit color system, planet	
			Actronomical rotation	
			Spherical croscopt moon	
			gibbous moon polines luner	
			gibbous moon, echpse, iunal	
			1	