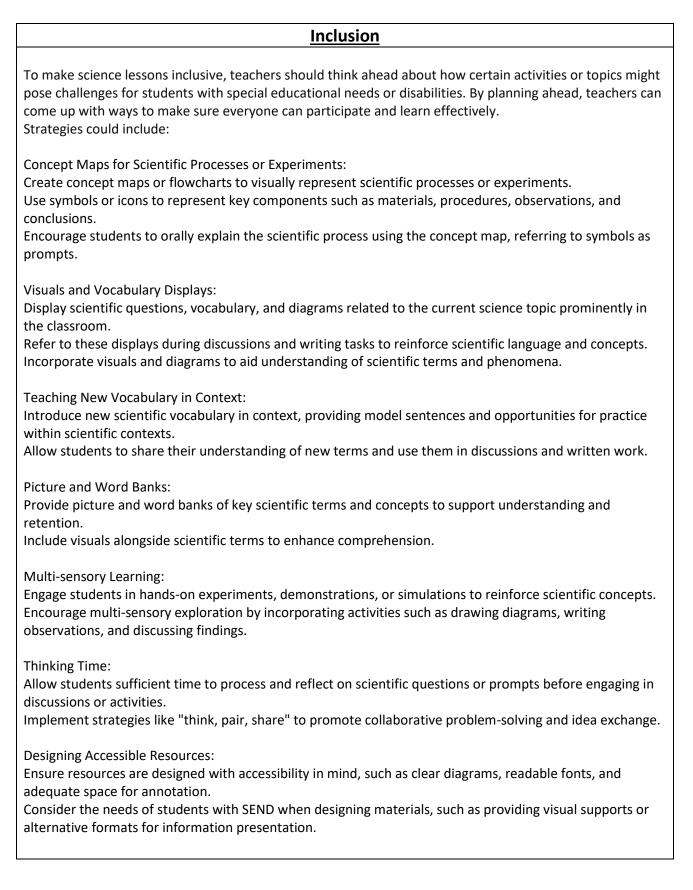
TAVISTOCK PRIMARY AND NURSERY SCHOOL SCIENCE CURRICULUM 2024/2025



		Foundation		
	Plan	Do	Record	Review
Working Scientifically	 -Explore during their play and repeat an action/test making it obvious they are trying to find something out and see if the result is always the same. -Recognise when a simple comparison is unfair. 	-Observe closely using all of their senses as appropriate. -During their play repeat and action/test making it obvious they are trying to find something out and see if the result is always the same. -Compare 2 (3) things by	-Draw pictures	- Make comparisons. -Say what happened. -Order results (first, second. Third) -Spot similarities and differences.
		direct observation.		
	Biology	Biology	Chemistry	Physics
Торіс	Plants	Animals, including humans	Everyday Materials	Forces, Magnets and Electricity
Scientific Knowledge	Identify plants that are in our local environment by using our senses. Recognise seasonal differences with plants and trees. Plant seeds and talk about what they need to grow. Label the parts of a plant – leaf, flower, stem and roots.	Name main body parts – head, neck, shoulders, body, legs, arms, fingers, toes, knees. (Extend to simple joints, ribs and backbone) Look at seasonal animals and develop vocabulary surrounding them. Autumn; Hedgehogs – omnivore, carnivore, herbivore, hibernate, camouflage Spring; Frogs and chickens – look at basic life-cycles Minibeasts – identify habitats and use senses to make simple observations and explanations of why minibeasts live where they do.(Using our local environment) Summer; Sea animals – Identify and name creatures that live in the sea. Talks about the way to keep healthy and stay safe. (School dinner choices, snack time and Jump start Jonny and	Be able to sort different materials – plastic, metal, paper , wood, material etc. Use cooking to explore changes of state of materials.	Opportunities for these activities within CP using STEM activities.(Some activities could include the following ideas) Use magnets to sort a range of materials. Introduce the vocabulary of repel and attract. Pushes and pulls Electricity Floating and sinking

Year R/Y1

KS1 End Points (NC)

- Has experienced and observed phenomena, having looked more closely at the natural and humanly-constructed world around them.
- Shows curiosity, asking questions about what they have noticed.
- Has developed understanding of scientific ideas through the use of different types of scientific enquiry to answer own questions, including observing changes over time, noticing patterns, grouping and classifying things, carrying out simple comparative tests and finding things out using secondary sources of information.
- Is beginning to use simple scientific language to talk about what they have found out and communicate their ideas to a range of audiences in a variety of ways.

		Plan	Do		Record		Review	
Working	Asking sim	ple questions	Observe closely	, using	Gather and record d	ata	Use their observations	
Scientifically	and recogn	nising that they	simple equipme	ent.	to help in answering	5	and ideas to suggest	
	can be ans	wered in	Perform simple	tests.	questions (year 2 or	ıly).	answers to questions.	
		vays and using						
	different ty	different types of		-Make observations		sults/	-Describe observations	
	scientific e	nquiries to	related to the task or test		take photos		-Say what they have	
	answer the	em.	-Use simple equ	iipment	-Help teacher make	а	found out	
			provided		class table or chart		-Say whether what	
	-With help,		-Measure using	uniform	-Complete a simple of		happened was what	
		ys to try and	non-standard u		or two column table		they expected	
	answer a q		straws) or simpl		-Make practical bloc	k		
	-Take a few	-	standard units a		graphs/ pictograms			
	planning de		measuring equi		-Make/ draw a block			
		when simple	metre stick, cm,	-	graph with a 1:1 sca	е		
	tests are ur			masses, I, jugs and				
		n suggestions	second timer -Compare 3 or more things -Read scales to the nearest labelled division.					
		collect data						
		ata needed has						
	been outlin							
		ple predictions	nearest labelled	l division.				
		ate (based on						
	something							
	observed b							
	without an	explanation)		Carrier Ta		C		
Tania		Autumn Term					ummer Term Tysics - Seasonal Changes	
Торіс		Biology - Plant			- Everyday Physic		cs - Seasonal Changes	
Scientific Knowle	dao	including huma Knows and car			guish between an	Knows when each of the four		
Scientific Knowle	uge	name a variety	•		-			
		wild and garde		object and the material from which it is made. Knows and can identify and name a variety of everyday		36430	seasons occurs	
		including decid				Know	vs what the features of	
		evergreen tree					nn are and what happens	
		evergreentree	.5				es in this season.	
		Knows and car	identify and		including wood,			
			asic structure of		ass, metal, water,	Know	s that days are longer in	
			mmon flowering	and rock			ner (sunshine hours) than	
		plants, includir	-	Can descr	ibe the simple	in wir		
		. ,	~	physical p	roperties of a			
		Knows and car	identify and		everyday materials	Obse	rve changes across the	
		name a variety			d can compare and	-	seasons.	
		animals includ			ether a variety of			
			ptiles, birds		materials on the	Know	s about and can describe	
		and mammals	e.g. cat, robin,		eir simple physical	weat	her in different seasons	
		adder, frog, sa	lmon.	properties		over	a year.	
		Knows and car	identify and				vs and can describe the	
		name a variety					res of different seasons	
		animals that a				and h	low they change through	
		herbivores and	lomnivores			the ye	ear	

Can describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals including pets)	
Knows and can identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense	

				Years 1/2					
	Plan			Do	Recor	d		Review	
Working Scientifically	and repeat an a making it obviou are trying to find something out a the result is alw same. -Recognise whe	-Explore during their play and repeat an action/test making it obvious they are trying to find something out and see if the result is always the same. -Recognise when a simple comparison is		rve closely using all ir senses as priate. g their play repeat ction/test making it us they are trying to omething out and the result is always me. pare 2 (3) things by observation.				- Make comparisons. -Say what happened. -Order results (first, second. Third) -Spot similarities and differences.	
	Autumn 1	Autumn 2		Spring 1	Spring 2	Summer 1	L	Summer 2	
Торіс	Animals including humans	Uses of everyday material	S	Uses of everyday materials	Living things and their habitats	Living th and their habitats	, ,	Plants	
Scientific Knowledge	Know and have noticed that animals, including humans, have offspring which grow into adults Has found out about and described the basic needs of animals, including humans, for survival (water, food and air) Can describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene	Can ident and comp the suitab of a variet everyday materials, including metal, pla glass, bric rock, papi cardboard particular	pare pility ty of wood, astic, er and d for	Can find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching	Has explore and compare the differences between things that are living, dead, and things that have never been alive Knows and can identify that most living 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	Knows and identify ar name a va of plants a animals in habitats, including microhabi Know and describe h animals of their food plants and other anir using the of a simple food chair identify ar name diffe sources of	itats can from btain from d nals, idea e n, and nd erent	Has observed and describe how seeds and bulbs grow into mature plants Has found out and can describe how plants need water, light and a suitable temperature to grow and stay healthy	

					Year	· <u>3</u>				
		Plan		I	Do	Record		Review		
Working		Ask relevant		Makir	ng systematic	Gather, reco	rd, classify and	Report on findings		
Scientifically	,	questions.		and ca	areful	present data	in a variety of ways	from enquiries,		
		Set up simple		obser	vations and	to help in an	swering questions.	including oral and		
		practical enqu	iries,	where	e appropriate	(A1, Sp1, Sp2	, Su1)	written explanations,		
		comparative a	nd fair taking		accurate			displays or		
		tests. (A2, Sp2	,Su1)	meas	urements using			presentations of		
					ard units, using a			results and		
		-Begin to choo	se ways	range	of equipment,			conclusions, making		
		to try and answ		includ				predictions for new		
		question (A2, S			ometers and			values. (A2, Sp1, Sp2,		
		Sp2, Su1)	- 1)		oggers.			Su1, Su2)		
					5u1,Su2)			,,		
		-Put forward o	wn	(00-)0	(42)042)			Use results to draw		
		ideas and mak		-Carry	out a fair test of			simple conclusions and		
	planning decis			n seeking			suggest improvements			
		Sp1, Sp2, Su1)			ry with help			and raise further		
	3h1, 3h5, 2n1)									
				o1,Sp2,Su1)			questions/ new questions. (A2, Sp1,			
		-Suggest ways						•		
	making the tes		-Com	oare 3 or more			Sp2, Su1)			
	if it cannot be			(A1, Sp1,Su1)						
		how they will a		. 0.	() - [))			Identify differences,		
		it by looking fo						similarities or changes		
		pattern (A2, S	p2,	-Use s	imple standard			related to simple		
		Su1)		measu	ures; m, cm, mm,			scientific ideas and		
				kg, g,	cm3, minutes,			processes. (A1, A2,		
		-From a selecti		secon	ds, Newtons (Sp1, Su1)		
		what equipme		Sp2,S	u1, Su2)			591, 501)		
		needed (Sp1,	Sp2,					Say what they have		
		Su1)						bund out and give an		
				-Meas	sure to the			xplanation for		
		-Suggest the ty	/pe of		st whole or half					
		data needed to	o be	unit o	r mixed units			bservations and simple atterns based on		
		collected (Su,	Su2)	(Sp2,	Su1, Su2)					
								veryday experiences (
		-Make simple		L .				1, A2, Sp1, Sp2, Su1,		
		predictions bas	sed on		scales to the			u2)		
		everyday expe	rience		st division					
		and knowledge	<mark>e</mark> (A2,		ed and unlabelled					
		Sp2, Su 1, Su2)	(Su2)						
		umn 1	Autumr	2	Spring 1	Spring 2	Summer 1	Summer 2		
Торіс		logy-	Biology		Chemistry -	Physics - Light	Physics – forces	Biology - Plants		
	Nut	rition	Animals		Rocks		and magnets			
			includin	-						
Scientific	ide	ntify that	humans identify		compare and	recognise	compare how	identify and describe		
Knowledge		mals,	humans		group	that they	things move on	the functions of		
		uding	some of		together	need light in	different	different parts of		
		nans, need	animals	-	different	order to see	surfaces	flowering plants: roots,		
		right types	skeletor		kinds of	things and		stem/trunk, leaves and		
	and	l amount of	and mu	scles	rocks on the	that dark is	notice that some	flowers		
	nut	rition,	for		basis of their	the absence	forces need			
	and	l that they	support	,	appearance	of	contact between	explore the		

cannot make	protoction	and simple	light	two objects but	roquiromonts of plants
cannot make	protection	and simple	light	two objects, but	requirements of plants
their own food;	and	physical		magnetic forces	for life and growth (air,
they get	movement.	properties	notice that	can	light, water, nutrients
nutrition from			light is	act at a distance	from
what they eat		describe in	reflected		soil, and room to grow)
		simple terms	from surfaces	observe how	and how they vary from
		how fossils		magnets attract	plant to plant
		are formed	recognise	or repel each	
		when things	that light	other and	investigate the way in
		that have	from the sun	attract some	which water is
		lived are	can be	materials and	transported within
		trapped	dangerous	not	plants
		within rock	and that	others	
			there are		explore the part that
		recognise	ways to	compare and	flowers play in the life
		that soils are	protect	group together a	cycle of flowering
		made from	their eyes	variety of	plants, including
		rocks and	-	everyday	pollination, seed
		organic	recognise	materials on the	formation and seed
		matter.	that shadows	basis of whether	dispersal.
			are formed	they are	
			when the	attracted to a	
			light from a	magnet, and	
			light source is	identify some	
			blocked by	magnetic	
			an opaque	materials	
			object	materials	
			0.0,000	describe	
			find patterns	magnets as	
			in the way	having two poles	
			that the size	naving two poles	
			of shadows	predict whether	
			change.	two magnets	
			change.	-	
				will attract or	
				repel each	
				other,	
				depending on	
				which	
				poles are facing.	

				Year 4				
	Plan			Do	Record		Review	
Working	Ask relevant		Makii	ng systematic	Gather, record,	Repo	ort on findings	
Scientifically	questions.		and a	areful	classify and present	from	enquiries,	
			obser	vations and	data in a variety of	inclu	ding oral and	
	Set up simple		where appropriate taking accurate measurements using		ways to help in	writ	ten	
	practical enqu	iries,			answering questions.	expl	anations,	
	comparative a	nd fair				displ	ays or	
	tests.			lard units, using	Record findings using		, entations of	
				ige of	simple scientific	•	lts and	
	-Begin to choo			- ment, including	language, drawings,	conc	lusions, making	
	to try and answ	ver a		nometers and	labelled diagrams, bar		ictions for	
	question		data	loggers.	charts and tables.	•	values.	
	-Put forward a	wp						
	ideas and make		-Carr	y out a fair test	-Construct a simple 2	Use	results to	
	planning decisi		of pa	ttern seeking	column table	draw	v simple	
	pidning decisi	0115	enqui	ry with help	-Draw bar charts 1:1,	conc	lusions and	
	-Suggest ways	of			1:2, 1:5 and 1:10 scale	sugg	est	
	making the tes		-Com	pare 3 or more	and begin to plot line	impr	ovements and	
	or if it cannot	be fair,	thing	S	2 1	raise	e further	
	how they will a	-	Llas	aimple atopdage	graphs.	ques	tions/ new	
		by looking for a pattern		simple standard		ques	tions.	
				ures; m, cm, mm,				
	•			cm3, minutes,		Iden	tify	
	-From a select	ion, say	secor	ids, Newtons		diffe	erences,	
	what equipmen	what equipment is needed -Suggest the type of		sure to the		simil	arities or	
	needed			st whole or half		chan	ges related to	
				or mixed units		simp	le scientific	
						idea	s and	
	data needed to	o be	-Read scales to the			proc	processes.	
	collected			st division				
	Maka simple			ed and			what they	
	-Make simple predictions ba	and on	unlab	elled			found out and	
	everyday expe					-	an explanation	
							observations	
	and knowledge						simple patterns	
							d on everyday	
						expe	riences	
	Autumn 1	Autumn	2	Spring 1 and 2	Summer 1		Summer 2	
Торіс	Electricity	States o	of	Sound	Living things and their	r	Animals	
		matter			habitats		including	
						1	humans	
Scientific Knowledge	Can Identify common	Knows and compare		Knows and can identify how sound	Can recognise that some s things can be grouped in		Know and can describe the	
and will use	appliances that	group	and	are made,	variety of ways.	u	simple	
	run on	materials		associating some o	f		functions of	
	electricity.	together		them with	Can and have used		the basic parts	
	Can construct a	according		something	classification keys to he group, identify and name		of the	
	simple series	whether are solids	•	vibrating.	variety of living things in		digestive system in	
	electrical	liquids or		Can recognise that			humans.	

circuit,	gases.	vibrations from	
identifying and		sounds travel	Knows and can
naming its basic	Has observed	through a medium	identify the
parts, including	that some	to the ear.	different
cells, wires,	materials		types of teeth
bulbs, switches	change state	Can find patterns	in humans and
and buzzers.	when they are	between the pitch	their simple
	heated or	of a sound and	functions.
Knows and can	cooled, and	features of the	
identify	measure or	object that	Can construct
whether or not	research the	produced it.	and interpret a
a lamp will light	temperature at		variety of food
in a simple	which this	Can find patterns	chains,
series circuit,	happens in	between the volume	identifying
based o	degrees Celsius	of a sound and the	producers,
whether or not	(°C)	strength of the	predators and
the lamp lights		vibrations that	prey.
in a simple	Knows and can	produced it.	
series circuit.	identify the		
	part played by	Can recognise that	
Can recognise	evaporation	sounds get fainter	
some common	and	as the distance	
conductors and	condensation in	from the sound	
insulators, and	the water	source increases.	
associate	cycle and		
metals with	associate the		
being good	rate of		
conductors	evaporation		
	with		
	temperature.		

				Year 5				
	Plan			Do	Record		Review	
Working	Ask relevant qu	estions.	Makin	g systematic and	Gather, record, classify	Repor	rt on findings	
Scientifically			carefu	l observations and	and present data in a	from	enquiries,	
(Previous	Set up simple pr	actical	where	appropriate taking	variety of ways to help in	includ	including oral and	
academic year a	enquiries, comp		accura	te measurements	answering questions. (A1,	writte	written explanations,	
mixed 4/ 5 class were taught the	and fair tests. (A	. (A2, us		standard units,	Sp1, Sp2, Su1)	displa	iys or	
year 5 endpoints)	Sp2,Su1)		using a	a range of		prese	ntations of	
year o chapolitoj			equipr	nent, including		result	s and	
	-Begin to choose			ometers and data		conclu	usions, making	
	try and answer a	question	logger	<mark>s.</mark> (Sp2,Su1,Su2)			ctions for new	
	(A2, Sp1, Sp2, S	1 1)				value:	<mark>s.</mark> (A2, Sp1, Sp2,	
			-Carry	out a fair test of		Su1, S		
	-Put forward ow		patter	n seeking enquiry		,-		
	and make some		with h	elp		Use re	esults to draw	
	decisions(Sp1, S	p2, Su1)	(A2,Sp	1,Sp2,Su1)		simple	e conclusions and	
			()-I-				st improvements	
	-Suggest ways or	-	-Comp	are 3 or more			aise further	
	the test fair or if		things	(A1, Sp1,Su1)		quest	ions/ new	
	be fair, how the		_	-			ions. (A2, Sp1,	
	answer it by loo	-	-Use si	mple standard		Sp2, S	• • • •	
	pattern (A2, Sp	2, Su1)	measu	res; m, cm, mm, kg,		5p2, 5	(41)	
	France coloritie		g, cm3	, minutes, seconds,		Identi	ify differences,	
	-From a selectio		Newtons (Sp2,Su1, Su2)				rities or changes	
		what equipment is					d to simple	
	needed (Sp1, Sp			ure to the nearest			ific ideas and	
	-Suggest the typ	e of data	whole or half unit or			proce	sses. (A1, A2,	
	needed to be co		mixed units (Sp2, Su1,			Sp1, S		
		necteu (Su2)			0,000,000	·)	
	Su, Su2)					Say wh	at they have	
	-Make simple pr	Make simple predictions		scales to the			out and give an	
	based on everyday			t division labelled			ation for	
	experience and		and unlabelled (Su2)				ations and simple	
		knowledge (A2, Sp2, Su					s based on	
	1, Su2)						ay experiences (
	1, 302)					-	Sp1, Sp2, Su1,	
						u2)	opi, opz, oui,	
						u2)		
	Autumn 1	Autumn		Spring 1 and 2	Summer 1		Summer 2	
Торіс	Biology-	Biology –		Chemistry - Rocks	Physics - Light		Physics – forces	
	Nutrition	Animals					and magnets	
		including humans						
Scientific	identify that	identify t	hat	compare and group	recognise that they need	d light	compare how	
Knowledge	animals,	humans a		together different	in order to see things an		things move on	
	including	some oth		kinds of rocks on	dark is the absence of		different	
	humans, need	animals h	ave	the basis of their	light		surfaces	
	the right types	skeletons	and	appearance	-			
	and amount of	muscles f	or	and simple physica		ted	notice that	
	nutrition,	support,		properties	from surfaces		some forces	
	and that they	protectio		ale and the first of the	manager about the test		need contact	
	cannot make	moveme	nt.	describe in simple	recognise that light from		between two	
	their own food;			terms how fossils are formed when	sun can be dangerous ar		objects, but	
	they get nutrition from			things that have	there are ways to protect their eyes	.1	magnetic forces can	
	what they eat			lived are	then eyes		act at a	
	what they cat			trapped within rock	recognise that shadows	are	distance	
					formed when the light fr			
				recognise that soils	-		observe how	
				are made from	an opaque object		magnets	

	rocks and organic		attract or repel
	matter.	find patterns in the way that	each other and
		the size of shadows change.	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
			materials
			describe
			magnets as
			having two
			poles
			predict
			whether two
			magnets will
			attract or repel
			each other,
			depending on
			which
			poles are
			facing.

				Year 6				
	Plan		Γ	Do	Reco	rd	1	Review
Working Scientifically	Plan Plan different tr scientific enquir including recogn and controlling where necessar answer question -Ask a variety of scientific questriation (A2)(Sp1)(Su1) -Choose the mo appropriate scientific questriation enquiry method answer a questriation outline the method (A1)(Su1) -List all the equinated needed (A1)(A2)(Sp1)(Sp1)(Sp1)(Sp1)(Sp2)(Sp1)(Sp1)(Sp2)(Sp1)(Sp1)(Sp1)(Sp1)(Sp1)(Sp1)(Sp1)(Sp1	ries, nising variables y to ns. itypes of ons st entific to on and hod pment o2) ita to much of Su1) ns based owledge	using scient with and p repeat appro -Mak meas for th -Selec meas (A1)(S -Use s as in i and n decin (A1)(S -Reac use w care(, -Reac precis appro task(S -Repet find a	measurements a range of tific equipment increasing accuracy precision, taking at readings when opriate. e a series of urements adequate te task (Sp1) ct appropriate uring equipment Sp1) standard measure including fractions nixed units and hals to one place Sp1) I scales with ased accuracy pare 5 or more s (A1)(Sp1) ct apparatus and vith A1)(A2)(Sp1) I scales with sion and accuracy opriate to the	Record data and of increasing of using scientifie diagrams, labe classification le tables, scatter bar and line gr models.	nd results omplexity els, seys, graphs, aphs and nation s including dings vations hents (A1)(A2) ohs using scales, ing ohs, ing	findir includ casua expla expla degree in ora such a other Use t predi furth fair to Ident evide used ideas -Use { interp trend (A1)(S -Draw these to rel scient undel with t (A1)(/-Offee for di repea obser	rt and present ngs from enquiries, ding conclusions, al relationships and nations of results, nations of the se of trust in results, al and written forms as displays and presentations. est results to make ctions to set up er comparative and
	Autumn 1	Autumn	2	Spring 1	Spring 2	Summer 1		Summer 2
Торіс	Biology – Animals including humans	Biology - Evolution inheritan	and	Physics - Light	Physics – Electricity	Biology – things and habitats	Living	RSE
Scientific Knowledge	Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood. Describe the impact of diet, exercise, drugs and lifestyle on the way their bodies function	Recognise living thir have char over time that fossi provide informati about livi things tha inhabited Earth mill of years a Recognise living thir produce offspring same kino normally	ngs nged and ls on ng at the ions ng o. e that ngs of the	Recognise that light appears to travel in straight lines. Know 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	Explain that 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	Describe I living thin classified broad gro according common observabl characteri and based similaritie difference including micro- organisms plants and animals.	gs are into ups to le istics d on es and es, s, d	

Describe the ways in which nutrients and water are transported within animals, including humans.	offspring vary and are not identical to their parents. Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.	light sources to our eyes or form light sources to objects and then to our eyes. Use the idea that light travels in straight lines to explain why shadow have the same shape as the objects that cast them.	loudness of buzzers and the on/off position of switches. Use recognised symbols when representing a simple circuit in a diagram.	plants and animals based on specific characteristics	
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