Whole School Medium Plan-

- 1. Explorify starter
- 2. Knowledge statement
- 3. Task to complete / discussion / skill
- 4. <u>Concluding question for discussion</u>

State if it is	Sessions:	Advent 1	Advent 2	Lent 1	Lent 2	Pentecost 1	Pentecost 2
<u>not a lead</u>	teachers						
subject: but	to date						
standalone/	Some sessions						
ongoing	Indy be blocked						
EYFS	Art	Myself	<u>Space</u>	Natural world	Our planet	<u>Water</u>	Sand sea and sun
	activities:						
	continuous	TAPS Assessment	TAPS Assessment	TAPS Assessment	TAPS Assessment	TAPS Assessment	TAPS Assessment
	provision/	LIGHT & SOUND	SPACE AND SEASONS	LIVING THINGS	FORCES	PLANTS	ANIMALS INC HUM
	small group	1. Scooping	1. Winter	1. Senses walk	1.Magnetic bottles	1. Tipping	1. Caring for a
	work	sounds	Clothes	2. Sorting Finds	2. Taste test	and	beetle
		2. Balls down	2. Forensic			pouring	(caterpillars)
		ramps	footprints			2. Planting a	2. Garden Bird
						Strawberry	Watch
						Basket	
Y1	<u>1</u>	PENGUINS POSSUMS	FIRE! FIRE!	GROWTH AND	ROBOTS	THE GREAT	FAMILY ALBUM
		AND PIGS	Seasonal Changes	GREEN FINGERS	Humans	OUTDOORS	Weather Diaries
		Animals	Outdoor learning –	Plants	Label basic parts of a	Materials	Pupils can record the
		AFL	observing signs of	Basic structure of	human body.	Group everyday	Season, day, month
		Group animals and	Autumn	plants.	Head, neck, arms,	objects based on	for the day as well as
		explain where they			legs, face, ear, eyes,	materials. Begin	the morning
		live.			nose, hair, mouth.	word bank.	weather and
					Include their diverse		afternoon weather.
					skin eye hair colours		Marty the weather
					and discuss.		monkey



Academic Year 24-25

				Why are we different?		
2	Describe how animals look different. Penguins, possums & pigs.	Autumn patterns with autumnal materials	Setting up plants experiment to observe growth over time. *Green beans.	Investigate human senses. What body parts do they link to seeing, hearing, smelling, feeling, tasting. BLIND walk, TASTE test, What if we had ears as large as an elephant?	Distinguish between objects and materials. Including predictions of materials.	Recording of Season, day, month, morning weather and afternoon weather.
<u>3</u>	Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals. *Continuous provision sorting.	Autumn Recording an autumn tree. Talk about what we sense in the Autumn.	Observing wild and garden plants in the local area.	Humans are animals, we are alive. Compare features of robots and humans. (similarities and differences) Robots cannot taste feel touch or smell. SOUND quiz, FEEL/SMELL bags, Could we live in a box?	Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, rock (and brick, paper and cardboard).	Recording of Season, day, month, morning weather and afternoon weather.
<u>4</u>	Identify and name a variety of common animals that are carnivores, herbivores and omnivores. *Continuous provision sorting.	Winter Observing signs of winter	Identifying deciduous and evergreen trees.	What body parts can are the most and least important? Recognise similarities in humans. Including amongst peers.	Compare and group a variety of everyday materials based on physical properties.	Recording of Season, day, month, morning weather and afternoon weather.

					What if we were all		
					the same?		
	<u>5</u>	Zoo visit	Winter	Green bean	Describe differences		
		*Observing Animals are	Recording a winter	observations over	in their own		
		alive; they move, feed, grow,	tree. Talk about what	time.	features.		
		use their senses and reproduce.	we sense in the		(eye, hair, skin colour,		
		-F	winter.		etc.)		
					Mirror self portraits.		
					Do you know who?		
					graph		
	6	TAPS Assessment	TAPS Assessment	TAPS Assessment	Doctor CP	TAPS Assessment	TAPS Assessment
	<u> </u>	Animals classification	Seasonal Change	Plant Structure	TAPS Assessment	Boat materials	LeafLook
					Modelling the body	Bout materials	
Y2	1	PLACES WHERE I LIVE	FIGHTING FIT	EXPLORERS	THE FARM SHOP	WIND IN THE	BUCKETS AND
	-	Nature Diaries – local	Humans	Nature diaries –in	Plant	WILLOWS	SPADES
		environment plants	KWL What do	their local	KWL Labelling parts	Animals	Materials
			humans need to	environment	of a plant.	Identify and name	KWL identify
		Nature diary – home	survive?		What do plants need	a variety of plants	everyday materials
		learning		Gather data	to grow?	and animals in	at school and local
				<u>'</u> living, dead and	Pupils can	their habitats,	environment.
				never alive.'		including micro-	
				<u>Pictogram</u>		habitats.	
	2	Autumn – seasonal	Find out about and	Record Data	Set up varying	Describe how	Compare the
		observations.	describe the basic	<u>'</u> Living, dead and	experiments.	animals obtain	suitability of
			needs of numans, for	never alive.'	Growing under	their food from	everyday materials.
			and air)	Pictogram	differing variable:	plants and other	What is a
					light, water,	animals, using the	sustainable
					placement.	idea of a simple	material?
						food chain, and	
						identify and name	

					different sources of food.	
<u>3</u>	Weather observations.	Describe the importance of human exercise.		Observe how seeds and bulbs grow over time. In varying conditions.	Different kinds of plants and animals live in different kinds of places. There are different kinds of habitat near school which need to be cared for. *Outdoor learning BUG hotels, INSECT garden.	Investigate how materials made from solid objects can change. Applying force through; squashing, bending, twisting and stretching
4	Plant observations.	Describe the importance for humans of eating the right amounts of different types of food, and hygiene.		Describe how seeds and bulbs grow over time. In varying conditions.	Compare local habitats and less familiar habitats of animals. Including examples from air, land and sea animals.	Sort materials into natural or man- made. INCLUDING OUTDOOR MATERIALS
5		Investigate medicine. Medicines can be useful when we are ill. Medicines can be harmful if not used properly.	H/W gathering data of observed trees, evergreen and deciduous. Recording data as a class.	RESEARCH Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy (and how changing these affects the plant).	Habitats within different climates. Revise continents.	

					Plants are living and		
					eventually die.		
	<u>6</u>	TAPS Assessment Nature spotters	TAPS Comparing Hand spans	TAPS Daisy Footprints	TAPS Assessment Living & Non Living	TAPS Assessment Woodlice Habitat	TAPS Assessment Waterproof materials
Υ3	1	HEALTHY HUMANS Nutrition, diet and skeleton movement Y1 revision what do animals eat to survive? Y2 revision what do we need? KWL	ROCK AND ROLL Rocks and fossils Compare and group together different kinds of rocks o the basis of appearance and simple physical properties.	THE IRON MAN Forces and Magnets Compare how some things move on different surfaces. KWL Vocabulary	THERE'S NO PLACE LIKE HOME Light Recognise that they need light in order to see things and that dark is the absence of light. Are bigger torches brighter?	WHAT THE ROMANS DID FOR US	HOW DOES YOUR GARDEN GROW? Plants Identify locate and describe functions of different parts of flowering plants. (MTP vocabulary)
	2	Identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat.	Describe how fossils are formed when things have lived are trapped within a rock.	Some forces need contact between 2 objects but magnetic forces can act at a distance.	Light is reflected from surfaces. Reflective and non- reflective.		Explain the requirements for plants for life and growth.
	3	Eat Well Guide An adequate and varied diet is beneficial to health (along with a good	Recognise that soils are made from rocks and organic matter.	Magnets attracting or repelling.	Recognise that light from the sun can be dangerous. Investigation of eye protections.		Plan and set up investigation for plant observation. (Outdoor learning)

		supply of air and clean water).					
	4	Regular and varied exercise from a variety of different activities is beneficial to health (focus on energy in versus energy out. Include information on making informed choices).	Observations of rocks and soils that can look and feel different.	Predict whether 2 magnets will attract or repel each other depending on which ways poles are facing. Predicting magnetic and non magnetic materials.	Shadows are formed when light is blocked by a solid object. Begin shadow diary.		Investigate the way water is transported in plants.
	<u>5</u>	Recording of exercise data and write up of findings.	Outdoor learning – Rocks and soils in different local and wider environments.	Compare and group a variety of everyday materials based on attracted to a magnet or repel a magnet. Magnets have 2 poles.	Shadow diary – find patterns in the way that size of shadows can change.		Explore life cycles of flowering plants.
	<u>6</u>	TAPS Assessment Skeleton explanations	TAPS Assessment Reporting on rocks	TAPS Assessment Cupcake Parachute	TAPS Assessment Can everything make a shadow?		TAPS Assessment Plant slow reveal
Υ4	1	SPARKSMIGHTFLY!Electricity- seriescircuits,switches,conductors, insulatorsIdentifyIdentifycommonappliancesthat run onelectricity.	THE GREAT PLAGUE Sound Vibrations Identify how sounds are made, associating some of them with something vibrating.	WATER, WATER, EVERYWHERE States of matter – Liquids and solids Compare and group materials whether they are liquids or solids.	THE ART OF FOOD Teeth and the digestive system Describe the basic functions of the digestive system in humans.	PASSPORT TO EUROPE	HUNTED Habitats Recognise that living things are grouped in a variety of ways. KWL Afl.

		Recognise that		CLASS – sue Martin	
		vibrations from		Digestive Sytem	
		sounds travel		model	
		through a medium to		model	
		through a mealum to			
		Life Edi.			
		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.			
<u>2</u>	Construct a simple	Know that sounds can	Identify solids and	Identify the	Explore and use
	series electrical circuit,	be made in a variety	liquids by their	Toothpaste, fridges,	classification keys to
	identifying and naming	of ways (pluck, bang,	observable	specs and toilet	help group a variety
	its basic parts, including	shake, blow) using a	properties.	paper: What did	of living things.
	cells, wires, bulbs,	variety of things		people do before	
	switches and huzzers				
	Beeggnise that faults in	(instruments,		they were invented?	
	Recognise that faults in circuits can be found by	(instruments, everyday materials,		they were invented? - BBC Bitesize	
	Recognise that faults in circuits can be found by methodically testing	(instruments, everyday materials, body).		they were invented? - BBC Bitesize different types of	
	Recognise that faults in circuits can be found by methodically testing connections.	(instruments, everyday materials, body). Know that sounds		<u>they were invented?</u> <u>- BBC Bitesize</u> different types of teeth and their	
	Recognise that faults in circuits can be found by methodically testing connections. Know that drawings,	(instruments, everyday materials, body). Know that sounds travel away from		they were invented? - BBC Bitesize different types of teeth and their functions.	
	Recognise that faults in circuits can be found by methodically testing connections. Know that drawings, photographs and diagrams	(instruments, everyday materials, body). Know that sounds travel away from their source in all		they were invented? - BBC Bitesize different types of teeth and their functions.	
	Recognise that faults in circuits can be found by methodically testing connections. Know that drawings, photographs and diagrams can be used to represent circuits.	(instruments, everyday materials, body). Know that sounds travel away from their source in all directions.		they were invented? - BBC Bitesize different types of teeth and their functions.	
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<u>3</u>	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.	Pitch Find patterns between the pitch of a sound and features of the object that produced it. Know that sounds can be high or low pitched.	Solids have a fixed size and shape, investigate solids fixed sizes and shapes.	Compare teeth of animals.	Identify, name and group a variety of living things in their local and wider environment (Outdoor learning)
<u>4</u>	Recognise some common conductors and insulators, and associate metals with being good conductors.	Know that pitch can be altered by changing the material, tension, thickness or length of vibrating objects or changing the length of a vibrating air column.	Liquids pouring and taking shape of containers, forming pools not piles.	Research hygienist dental profession. ?Visit from dentist. Letter with questions to ask I know I wonder	Construct and interpret a variety of food chains identifying producers, predators and prey. (Land animals)
<u>5</u>	Know that electricity can be dangerous. Recognise electricity sources can be mains or battery. Know that batteries 'push' electricity round a circuit and can make bulbs, buzzers and motors work.	Muffling / Blocking Sounds Recognise that vibrations from sounds travel through a medium to the ear. Know that sounds are heard when they enter our ears (although the structure of the ear is	Investigate powders, solids in the form of powders can pour as if they were liquids (see Cornflour TAPS) but make piles not pools.	Construct and interpret a variety of food chains identifying producers, predators and prey. (Fish and birds)	Recognise environments change and can pose dangers to living things. Use and make identification keys for plants and animals.

	<u>6</u>	TAPS	not important key learning at this age phase). Know that sounds can travel through solids, liquids and air/gas by making the materials vibrate. Know that sound travel can be reduced by changing the material that the vibrations travel through. Know that sound travel can be blocked TAPS	TAPS Assessment	TAPS Assessment		TAPS Assessment
					reeth (eggs) in liquid		Survey
Υ5	1	FASTER, HIGHER, STRONGER Animals including humans Growth and development of humans. MRS GREN* seven processes of life	A KINGDOM UNITED stand alone material one comparative Fair tests	AMAZON ADVENTURE Life cycle changes Describe the difference in life cycles of a mammal, amphibian and insect and a bird.	EARTHLINGS Earth and Space AFL : order the planets in the solar system. Describe the movement of the Earth and other planets relative to the sun in the solar system. The Earth spins once around its own axis	INVENTIORS AND INVENTIONS Forces and falling objects Explain that unsupported objects fall towards the Earth because of gravity acting between the Earth and the falling object.	FOOD GLORIOUS FOOD Materials part two Soluble or insoluble?

			in 24hours giving		
			day and night. The		
			earth orbits the sun		
			in one year.		
			What if the Earth		
			spun more quickly or		
			slowly?		
<u>2</u>	Describe the changes	Describe the life	Describe the	Identify the effects	Mixtures of solids
	as human develop to	process of	movement of the	of air resistance,	and liquids can be
	old age including	reproduction in	moon relative to the	water resistance	separated by
	puberty (RSE link).	plants, plants	Earth. Describe the	and friction	filtering if the solid is
		produce pollen from	sun moon and	between moving	insoluble
		the stamen which is	Dearth as spherical	surfaces.	(undissolved).
		transferred from the	bodies.		
		stigma to the ovary.	We see the moon		
			because the suns		
			light reflects off it.		
			The moon orbits the		
			earth approximately		
			every 28days. The		
			moon is a celestial		
			body.		
			Research Earth's		
			moon and compare		
			to jupiter's four		
			large moons.		
			Why does the moon		
			appear to change		
			shape?		
<u>3</u>	Research the	Fertilisation occurs	Investigate changes	Friction, air	What is
	gestation periods of	in the ovary of the	to shadow length	resistance and	Evaporation?
	animals in	flower, seeds are	over a day, changes	water resistance	
			to sunrise and	are forces that	

	comparison to	formed as a result of	sunset over a vear	slow down moving	
	humans.	fertilisation.	are evident. The sun	obiects.	
		NN - Pollination	appears to move		
			across the sky.		
			causing shadows to		
			change during the		
			day. East to West.		
			, The sun is a star at		
			the centre of the		
			solar system.		
			, Design an		
			investigation to		
			explore how		
			shadows change		
			throughout the day.		
			Line graph *		
			What if the sun was		
			closer to the Earth?		
4	Season Investigation	Life Cycle nature	Explore heliocentric	Recognise that	Evaporation helps us
	<u>continuous</u>	journal throughout	(sun centre) and	some mechanisms	separate soluble
	throughout the	the year. To include	geocentric models	including levers,	materials from
	<u>academic year.</u>	David Attenborough	(earth centre) of the	pulleys and gears	water.
		<u>research.</u>	solar systems.	allow a smaller	
			Debate	force to have a	
			Consider findings	greater effect.	
			from Ptolemy,		
			Alhazen and		
			Copernicus.		
			Why do agree /		
			disagree?		
<u>5</u>	<u>Life Cycle nature</u>	Asexual	Space Centre visit?	Multiple forces	Changes to materials
	journal throughout	reproduction in		acting on objects	can happen at
	<u>the year. To</u>	plants		simultaneously	different rates

		include David		Allow children the	Design a quiz for	either reinforcing	(factors affecting
		Attenborough		opportunity to	your classmates .	or opposing each	dissolving, factors
		research.		explore growing new	Ten questions. Ten	other.	affecting
				plants in other ways	most important		evaporation –
				besides seeds. For	statements of		amount of liquid,
				example:	knowledge.		temperature, wind
				From a runner:			speed).
				strawberries or			
				spider plants.			
				From a cutting:			
				geraniums or roses.			
				From a bulb:			
				daffodils or tulips.			
				From a tuber:			
				potatoes or dahlias			
	<u>6</u>	TAPS Assessment		TAPS Assessment	TAPS Assessment	TAPS Assessment	TAPS Assessment
		Growth Survey		Life Cycle acting	Orbit explanation	Aqua Dynamics	Dirty Water Filter
						designs	
Y6	<u>1</u>	<u>SURVIVAL</u>	SUPER SLEUTH	BRITTEN'S GOT	HEOROES AND	Electricity	<u>Electricity</u>
		Evolution	Classification	TALENT	VILLAINS	KWL Grid	KWL Circuit practical
		Evolution and	Vertebrates and	Light exploring the	Animals Including		revision.
		inheritance -	invertebrates.	way light behaves	humans and the		
		adaptation,	Describe how living	including light sources,	circulatory system		
		survival of the	things are classified	reflection, shadows	The heart is an		
		fittest,	into broad groups	Pocognico that light	organ. Identify and		
		reproduction and	according to	annears to travel in	name main parts of		
		passing on traits.	common observable	straight lines.	the human		
			characteristics,	<u> </u>	circulatory system.		
			similarities and		Heart, Muscle, Lung,		
			differences including		Blood, blood vessels		
			micro-organisms,		and blood.		
			plants and animals.				

2	Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago.	Give reasons for classifying plants based on characteristics. Observations and research.	Research additional light sources.	The heart pumps blood to your lungs. Where is your heart? How do our heart and lungs work? The heart is made up of muscle. Heart pumping blood around the body through vessels and as a pulse. Heart pumps blood around the body. Lungs remove co2 in order to obtain supply of oxygen. What is our blood always circulated at the same speed?	SATS Preparation	Introduce and use recognised symbols when representing a circuit in a diagram. • Cells • Wires • Switches • Bulbs • Buzzers • motors
<u>3</u>	Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents.	Vertebrates and invertebrates. Grouping into fish, amphibians, reptiles, birds and mammals, snails, slugs, worms, spiders and insects.	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. Using detailed diagrams and labelling.	What happens to our bodies when we exercise. During exercise muscles need more oxygen. Heart beats faster and our breathing pulse rates increase. Perspiration. Test pulse rates after different	SATS Science KS2 Paper	Use circuit diagrams

				exercises. Record graph. How can I improve recovery after exercise?		
<u>4</u>	Identify how plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.	Living things can be grouped into mirco- organisms, plants and animals. Plants can be grouped as flowering and non- flowering plants.	Explain that we see things because the light that travels from light sources to our eyes or from light sources to objects and then to our eyes.	Smoking just makes you ill. DEAD LUNGS. Recognise the impact of lifestyle on the way the bodies function. Research the smoking ban in their life time. Why do people vape?	Electricity Associate the brightness of a lamp or volume of a buzzer with the number and voltage of cells in the circuit.	Interpret circuit diagrams to construct a variety of more complex circuits predicting whether they will work.
<u>5</u>	Identify how animals are adapted to suit their environment in different ways and that adaptation may lead to evolution.	Begin Invertebrate research.	Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them.	Balanced diet is need to help us grow and repair. Look at protein, fat, vitamins and minerals. Link with animals being alive because they move, feed, grow (MRS NERG)	Observe and create variation of electrical circuits.	
<u>6</u>	Twycross zoo opportunity		Shadow exploration and data collection.	Substances: drugs, medicines. All medicines are drugs but not all	Compare and give reasons for variation in how components function including	

				drugs are medicines.	the brightness of	
				RSE link.	bulbs, loudness of	
					buzzers and the	
					on/off position of	
					switches.	
<u>7</u>	TAPS Assessment	TAPS Assessment	TAPS Assessment	TAPS Assessment	TAPS Assessment	TAPS Assessment
	Fossil Habits	Invertebrate	Shadow Plan	Heartrate Pose	Bulb brightness	Conductive dough
		research				