Science Long Term Plan Overview LKS2

Cycle D 2022/2023	Autumn		Spring		Summer	
Theme Title	The Ancie	nts (Egypt)	Wa	iter	British History	
	Forces and Magnets	Circuits and Conductors	Rocks and Fossils	Water and The Water Cycle/ British Science Week	How Plants Grow	Habitats
Key Vocabulary / Knowledge:	Forces: push, pull, friction, air resistance, water resistance, magnetic forces, gravity. Newton, poles, repel, attract, force meters.	Electricity, circuits, conductors, insulators, lamp, batteries, switch, cells, bulbs, series, current.	Organic matter, igneous, metamorphic, sedimentary, porous, fossils, soil types, loamy, sandy, peaty, acidic, properties.	Solids, liquids, gases, evaporation, condensation, water cycle, separating substances; pollution, filtration	Germination, pollination, photosynthesis, seed dispersal, classification, parts of plants, structures, characteristics, and environment.	Identification, classification, food chains, invertebrates and vertebrates, interdependence, keys, predators, prey, environments.
Overview / Enquiry	Comparative tests How does the mass of an object affect how much force is needed to make it move? Which magnet is strongest? Which surface is best to stop you slipping? COC Identify & Classify Which materials are magnetic?	Comparative tests How does the thickness of a conducting material affect how bright the lamp is? Which metal is the best conductor of electricity? Coo Identify & Classify How would you group these electrical devices based on where the electricity comes from?	Comparative tests How does adding different amounts of sand to soil affect how quickly water drains through it? Which soil absorbs the most water? Convou use the identify & Classify Can you use the identification key to find out the name of each of the rocks in your collection?	Comparative tests How much water do we consume in the UK? How does this compare to other countries? What is the best way of 'cleaning' rain water? Vhat is the best way of 'cleaning' rain water? Identify & Classify What are the different uses of water? Is rainwater the same as tap water?	Comparative tests How does the length of the carnation stem affect how long it takes for the food colouring to dye the petals? Which conditions help seeds germinate faster? Mentify & Classify How many ways can you group our seed collection?	Can you sort desert animals according to whether they are mammals, birds, reptiles, arachnids or insects? Can you label and organise animals and plants into food chains? Cobservation over time How does the variety of invertebrates on the school field change

	Observation over time		Learners could leave	Observation over time	over the year?
	How long does a battery		containers outside in	What happens to celery	(Revisit during the
	light a torch for?		different areas to collect	when it is left in a glass	Summer term)
Observation over time		Observation over time	rainwater over a week or	of coloured water?	
If we magnetise a pin,		How does tumbling	month. They could	How do flowers in a vase	
how long does it stay		change a rock	observe what	change over time?	
magnetised for?	Pattern Seeking	over time?	collects in the different		Pattern Seeking
	Which room has the	What happens when	containers and compare		
	most electrical sockets in	water keeps	these to clean water.		
	a house?	dripping on a			
Pattern Seeking		sandcastle?		Pattern Seeking	
Do magnetic materials				What colour flowers do	Research
always conduct			Pattern Seeking	pollinating insects	Which animals that live
electricity?				prefer?	in the desert are
Does the size and shape	Research		Which daily activity uses		nocturnal/diurnal?
of a magnet affect how	How has electricity	Pattern Seeking	the most water?		
strong it is?	changed the way we	Is there a pattern in			How do some animals
	live?	where we find volcanos			manage to live in the
	How does a light bulb	on planet Earth?		Research	desert?
	work?			What are all the	
Descent			Beceret	different ways	BIG Question –
Research	BIG Question –		Research	that seeds disperse?	Assessment Opportun
How have our ideas	Assessment Opportunity				How have plants and
about forces changed	What can we do with	Research	How can we reduce our	BIG Question –	animals adapted to livi
over time?	electricity?	Who was Mary Anning	water usage?	Assessment Opportunity	in the desert?
How does a compass		and what		Why do plants have	
work?	TAPS planning ideas:	did she discover?	How has science helped	flowers?	TAPS planning ideas:
	Circuit products		us to have clean drinking		
BIG Question –	Conductors	BIG Question –	water?	TAPS planning ideas:	Other ideas:
Assessment Opportunity		Assessment Opportunity		Measuring plants	
How can we move	Other ideas:	What are rocks and soils		Function of stem	
magnets?	Which metal is the best	like?		Other ideas:	
	conductor of electricity?			Which conditions help	
TAPS planning ideas:	Do bulbs get brighter if	TAPS planning ideas:		seeds germinate faster?	
Cupcake parachutes	more cells are added	Rock reports		comparing the effect of	
Shoe grip		Eco Action		different factors on plant	
Magnet tests		Other ideas:		growth for example the	
Cars down ramps		Which soil absorbs the		amount of light the	
Balloon rockets		most water?		amount of fertiliser	
Egg drop packages		Observing rocks,		discovering how seeds	
			•		

	Other ideas:		buildings and		the different stages of	
	Which magnet is		gravestones and		plant life cyclos over a	
	strongost2		ovploring how and why		part ine cycles over a	
	Which surface is best to		they might have changed		Looking for patterns in	
	ston you clinning?		over time		the structure of fruits	
	Evaluring the strengths		Bunils might research		the structure of fruits	
	ef different magnets and		Pupils Hight research			
	finding a fairway to		and discuss the different		seeds are dispersed.	
	finding a fair way to		kinds of living things		They might observe now	
	compare them;		whose fossils are found		water is transported in	
	Identifying how these		in sedimentary rock and		plants, for example, by	
	properties make		explore how fossils are		putting cut, white	
	magnets useful in		formed.		carnations into coloured	
	everyday items.		Pupils could explore		water and observing	
			different soils and		how water travels up the	
			identify similarities and		stem to the flowers.	
			differences between			
			them and investigate			
			what happens when			
			rocks are rubbed			
			together or what			
			changes occur when			
			they are in water.			
Obiectives	Pupils should be taught	Pupils should be taught	Pupils should be taught	Pupils should be taught	Pupils should be taught	Pupils should be taught
· · · · · · · · · · · · · · · · · · ·	to:	to:	to:	to:	to:	to:
	- compare how things	- identify common	- compare and group	Pupils should observe	- identify and describe	- recognise that living
	move on different	appliances that run on	together different kinds	water as a solid a liquid	the functions of different	things can be grouped in
	surfaces	electricity	of rocks on the basis of	and a gas and should	parts of flowering plants:	a variety of ways -
	notice that some forces	- construct a simple	their appearance and	note the changes to	roots, stem/trunk, leaves	explore and use
	need contact between 2	series electrical circuit.	simple physical	water when it is heated	and flowers	classification keys to help
	objects, but magnetic	identifying and naming	properties	or cooled	- explore the	group, identify and name
	forces can act at a	its basic parts, including	- describe in simple	Making systematic and	requirements of plants	a variety of living things
	distance	cells, wires, bulbs,	terms how fossils are	careful observations and	for life and growth (air.	in their local and wider
	- observe how magnets	switches and buzzers	formed when things that	where appropriate	light, water, nutrients	environment - recognise
	attract or repel each	- identify whether or not	have lived are trapped	taking appropriate,	from soil, and room to	that environments can
	other and attract some	a lamp will light in a	within rock	taking accurate	grow) and how they vary	change and that this can
	materials and not others	simple series circuit	- recognise that soils are	measurements using	from plant to plant	sometimes nose dangers
	- compare and group	hased on whether or not	made from rocks and	standard units.	- investigate the way in	to living things Compare
	together a variety of	the lamp is part of a	organic matter	Gathering, recording,	which water is	the types of animals and
	everyday materials on			classifying and		nlants that live in the
	everyuay materials off			presenting data in a		plants that live in the

the basis of whether	complete loop with a	variety of ways to he	nelp in	transported within	habitat. (notice that
they are attracted to a	battery	answering questions	าร	plants	animals from habitats
magnet, and identify	- recognise that a switch	Recording findings	using	 explore the part that 	such as under stones will
some magnetic materials	opens and closes a	simple scie	entific	flowers play in the life	have features such as
describe magnets as	circuit and associate this	language, draw	wings,	cycle of flowering plants,	antennae)
having 2 poles	with whether or not a	labelled diagrams,	keys,	including pollination,	
predict whether 2	lamp lights in a simple	bar charts, and table	les	seed formation and seed	Construct and interpret a
magnets will attract or	series circuit			dispersal	variety of food chains,
repel each other,	- recognise some				identifying producers,
depending on which	common conductors and				predators and prey.
poles are facing	insulators, and associate				
	metals with being good				
	conductors				

Cycle A 2023/2024	Autumn		Spring		Summer	
Theme Title	Lights, Carr	nera, Action	Poles	Apart	The Olympics	(France / Paris)
	Light and Shadows	Sound	States of Matter	Habitats	Animals Including Humans (Yr 3)	Animals Including Humans (Yr 4)
Key Vocabulary / Knowledge:	Light, dark, natural and artificial sources, shadow, transparent, translucent, opaque, reflections, refraction, sight, vision, key parts of an eye.	Sounds, vibration, amplification, waves, pitch, volume, sound travelling through materials, how the ear works.	Solids, liquids, gases, thermometers, temperature, heat, cool, evaporation, condensation, water cycle, degrees Celsius.	Interdependence, adaptation, classification, environment, climate change, food chains, keys, grouping plants and animals.	Parts of the body, skeleton, muscles, movement, food groups, vitamins, minerals, growth, hygiene, bacteria, life cycle.	Digestive system: mouth, tongue, teeth, oesophagus, stomach and intestine. Nutrients, teeth, decay, health, molars, canines.
Overview / Enquiry	Comparative tests How does the distance between the shadow puppet and the screen affect the size of the shadow? Which pair of sunglasses will be best at protecting our eyes?	Comparative tests How does the volume of a drum change as you move further away from it? How does the length of a guitar string/tuning fork affect the pitch of the sound?	Comparative tests How does the mass of a block of ice affect how long it takes to melt? How does the surface area of water affect how long it takes to evaporate?	Comparative tests Does the amount of light affect how many woodlice move around? How does the average temperature of the pond water changes in each season?	Comparative tests How does the angle that your elbow/knee is bent affect the circumference of your upper arm/thigh? How does the skull	Comparative tests In our class, are omnivores taller than vegetarians?



TAPS planning ideas: Making shadows Other ideas: Which pair of sunglasses will be best at protecting our eyes? Looking for patterns in what happens to shadows when the light source moves or the distance between the light source and the object changes.	TAPS planning ideas: Investigating pitch String telephones Other ideas: Which material is best to use for muffling sound in ear defenders? Are two ears better than one? Finding patterns in the sounds that are made by different objects such as saucepan lids of different sizes or elastic bands of different thicknesses. Make earmuffs from a variety of different materials to investigate which provides the best insulation against sound. They could make and play their own instruments by using what they have found out about pitch and volume.	Research What are hurricanes, and why do they happen? BIG Question – Assessment Opportunity Where do ice cubes go when they disappear? Why does it rain and hail? TAPS planning ideas: Cornflour slime Drying materials Measure temp Dunking biscuits Other ideas: Does seawater evaporate quicker than fresh water Exploring the effect of temperature on substances such as chocolate, butter, cream (for example, to make food such as chocolate crispy cakes and ice-cream for a party). They could research the temperature at which materials change state, for example, when iron melts or when oxygen condenses into a liquid.	TAPS planning ideas: Local survey Other ideas: How does the average temperature of the pond water change in each season? Using and making simple guides or keys to explore and identify local plants and animals Making a guide to local living things Raising and answering questions based on their observations of animals and what they have found out about other animals that they have researched.	Why do animals have skeletons? What is a healthy diet and why is it important? TAPS planning ideas: Investigating skeletons Other ideas: How does the skull circumference of a girl compare with that of a boy? Identifying and grouping animals with and without skeletons and observing and comparing their movement; Exploring ideas about what would happen if humans did not have skeletons. They might research different food groups and how they keep us healthy, and design meals based on what they find out.	herbivores and suggesting reasons for differences
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			They might observe and record evaporation over a period of time, for example, a puddle in the playground or washing on a line, and investigate the effect of temperature on washing drying or snowmen melting.			
Objectives	Pupils should be taught to: - 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 a solid object - find patterns in the way that the size of shadows change	 Pupils should be Pupils should be taught to: 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 	 Pupils should be taught to: compare and group materials together, according to whether they are solids, liquids or gases; observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C); identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature. 	Pupils should be taught to: - recognise that living things can be grouped in a variety of ways - explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment - recognise that environments can change and that this can sometimes pose dangers to living things	 taught to: 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; identify that humans and some other animals have skeletons and muscles for support, protection and movement 	Pupils should be taught to: • describe the simple functions of the basic parts of the digestive system in humans • identify the different types of teeth in humans and their simple functions • construct and interpret a variety of food chains, identifying producers, predators and prey

Cycle B 2024/2025	Autumn		Spi	Spring		Summer	
Theme Title	Life on Earth		Material Age	Material Ages (Stone Age)		Invaders (Saxons and Vikings)	
	Forces and Magnets	Habitats	Rocks and Fossils	British Science Week	How Plants Grow	Circuits and Conductors	
Key Vocabulary / Knowledge:	Forces: push, pull, friction, air resistance, water resistance, magnetic forces, gravity. Newton, poles, repel, attract, force meters.	Identification, classification, food chains, invertebrates and vertebrates, interdependence, keys, hibernation predators, prey, environments.	Organic matter, igneous, metamorphic, sedimentary, porous, fossils, soil types, loamy, sandy, peaty, acidic, properties.		Germination, pollination, photosynthesis, seed dispersal, classification, parts of plants, structures, characteristics, and environment.	Electricity, circuits, conductors, insulators, lamp, batteries, switch, cells, bulbs, series, current.	
Overview / Enquiry	Comparative tests How does the mass of an object affect how much force is needed to make it move? Which magnet is strongest? Which surface is best to stop you slipping? Identify & Classify Which materials are magnetic? Observation over time	Identify & Classify Can you sort animals found locally according to whether they are mammals, birds, reptiles, arachnids or insects? Sort local plants according to flowering/ non flowering groups. Can you label and organise animals and plants into food chains? Observation over time How does the variety	Comparative tests How does adding different amounts of sand to soil affect how quickly water drains through it? Which soil absorbs the most water? Identify & Classify Can you use the identification key to find out the name of each of the rocks in your collection?	Science week topic dependent	Comparative tests How does the length of the carnation stem affect how long it takes for the food colouring to dye the petals? Which conditions help seeds germinate faster? Identify & Classify How many ways can you group our seed collection? Observation over time	Comparative tests How does the thickness of a conducting material affect how bright the lamp is? Which metal is the best conductor of electricity? Identify & Classify How would you group these electrical devices based on where the electricity comes from? Observation over time How long does a battery light a torch for?	

If we magnetise a pin,	of invertebrates on the	Observation over time		What happens to celery	Pattern Seeking
how long does it stay	school field change	How does tumbling		when it is left in a glass	Which room has the
magnetised for?	over the year?	change a rock		of coloured water?	most electrical sockets
	(Revisit during the	over time?		How do flowers in a	in a house?
	Summer term)	What happens when	, I I I I I I I I I I I I I I I I I I I	vase change over time?	
		water keeps		Revisit invertebrates	
Pattern Seeking		dripping on a	1	now on the school field.	
Do magnetic materials		sandcastle?			
always conduct	Pattern Seeking				Research
electricity?					How has electricity
Does the size and shape					changed the way we
of a magnet affect how				Pattern Seeking	live?
strong it is?		Pattern Seeking		What colour flowers do	How does a light bulb
	Research	Is there a pattern in		pollinating insects	work?
	Which animals	where we find volcanos		prefer?	
	hibernate for the	on planet Earth?			BIG Question –
· · · · · · · · · · · · · · · · · · ·	winter?				Assessment
Research					Opportunity
How have our ideas	How do some animals			•	What can we do with
about forces changed	manage to live through			Research	electricity?
over time?	harsh climates?	Research		What are all the	
How does a compass		Who was Mary Anning		different ways	TAPS planning ideas:
work?	BIG Question –	and what	1	that seeds disperse?	Circuit products
	Assessment	did she discover?			Conductors
BIG Question –	Opportunity			BIG Question –	
Assessment	How have plants and	BIG Question –		Assessment	Other ideas:
Opportunity	animals adapted to	Assessment		Opportunity	Which metal is the best
How can we move	living in the different	Opportunity		Why do plants have	conductor of electricity?
magnets?	environments?	What are rocks and soils	1	flowers?	Do bulbs get brighter if
		like?			more cells are added
TAPS planning ideas:	TAPS planning ideas:		-	TAPS planning ideas:	
Cupcake parachutes		TAPS planning ideas:		Measuring plants	
Shoe grip	Other ideas:	Rock reports		Function of stem	
Magnet tests		Eco Action			
Cars down ramps		Other ideas:		Other ideas:	
Balloon rockets		Which soil absorbs the	,	Which conditions help	
Egg drop packages		most water?		seeds germinate faster?	
		Observing rocks,		comparing the effect of	
Other ideas:		including those used in		different factors on	
Which magnet is		buildings and	,	plant growth, for	
strongest?		gravestones, and		example, the amount of	

	Which surface is best to		exploring how and why		light the amount of	
	ston you slipping?		thoy might have		fortilizor	
	Exploring the strongths		changed over time		discovering how souds	
	of different magnets		Pupils might research		are formed by observing	
	and finding a fair way to		and discuss the different		the different stages of	
	compare them:		kinds of living things		nlant life cycles over a	
	Identifying how these		whose fossils are found		plant me cycles over a	
	proportios mako		in sodimontory rock and		Looking for pattorns in	
	magnots usoful in		ovplore how fossils are		the structure of fruits	
	overvdav items		formed		the structure of mults	
	everyday items.		Bupils could explore		soods are dispersed	
			different soils and		They might observe how	
			identify similarities and		mey might observe now	
			differences between		water is transported in	
			them and investigate		plants, for example, by	
			what here are when		putting cut, white	
			what happens when		carnations into coloured	
			rocks are rubbed		water and observing	
			together or what		now water travels up	
			changes occur when		the stem to the flowers.	
	-		they are in water.			
Objectives	Pupils should be taught	Pupils should be taught	Pupils should be taught		Pupils should be taught	Pupils should be taught
	to:	to:	to:		to:	to:
					- identify and describe	
	- compare how things	- recognise that living	- compare and group		the functions of	- identify common
	move on different	things can be grouped in	together different kinds		different parts of	appliances that run on
	surfaces	a variety of ways -	of rocks on the basis of		flowering plants: roots,	electricity
	notice that some forces	explore and use	their appearance and		stem/trunk, leaves and	- construct a simple
	need contact between 2	classification keys to	simple physical		flowers	series electrical circuit,
	objects, but magnetic	help group, identify and	properties		- explore the	identifying and naming
	forces can act at a	name a variety of living	- describe in simple		requirements of plants	its basic parts, including
	distance	things in their local and	terms how fossils are		for life and growth (air,	cells, wires, bulbs,
	- observe how magnets	wider environment -	formed when things		light, water, nutrients	switches and buzzers
	attract or repel each	recognise that	that have lived are		from soil, and room to	- identify whether or
	other and attract some	environments can	trapped within rock		grow) and how they	not a lamp will light in a
	materials and not others	change and that this can	- recognise that soils are		vary from plant to plant	simple series circuit,
	- compare and group	sometimes pose dangers	made from rocks and		- investigate the way in	based on whether or
	together a variety of	to living things. Compare	organic matter		which water is	not the lamp is part of a
				1	transported within	
	everyday materials on	the types of animals and			transported within	complete loop with a
	everyday materials on the basis of whether	the types of animals and plants that live in the			plants	battery

m	nagnet, and identify	animals from habitats		- explore the part that	- recognise that a switch
sc	ome magnetic	such as under stones will		flowers play in the life	opens and closes a
m	naterials	have features such as		cycle of flowering	circuit and associate this
de	lescribe magnets as	antennae)		plants, including	with whether or not a
ha	aving 2 poles			pollination, seed	lamp lights in a simple
pr	predict whether 2	Construct and interpret		formation and seed	series circuit
m	nagnets will attract or	a variety of food chains,		dispersal	 recognise some
re	epel each other,	identifying producers,			common conductors
de	lepending on which	predators and prey.			and insulators, and
po	oles are facing				associate metals with
					being good conductors

Cycle C 2025/2026	Aut	umn	Spi	ring	Sum	nmer	
Theme Title	War and Re	membrance	The Americas	s (Rainforests)	Health through Ti	Health through Time / The Romans	
Science Study Title	Light and Shadows	Sound	States of Matter	Habitats	Animals Including	Animals Including	
		Sound	States of Matter		Humans (Yr 3)	Humans (Yr 4	
Key Vocabulary / Knowledge:	Light, dark, natural and artificial sources, shadow, transparent, translucent, opaque, reflections, refraction, sight, vision, key parts	Sounds, vibration, amplification, waves, pitch, volume, sound travelling through materials, how the ear works.	Solids, liquids, gases, thermometers, temperature, heat, cool, evaporation, condensation, water cycle, degrees Celsius.	Interdependence, adaptation, classification, environment, climate change, food chains, keys, grouping plants	Parts of the body, skeleton, muscles, movement, food groups, vitamins, minerals, growth, hygiene, bacteria, life	Digestive system: mouth, tongue, teeth, oesophagus, stomach and intestine. Nutrients, teeth, decay, health, molars, canines.	
Overview / Enquiry	Comparative tests How does the distance between the shadow puppet and the screen affect the size of the shadow? Which pair of sunglasses will be best at protecting our eyes?	Comparative tests How does the volume of a drum change as you move further away from it? How does the length of a guitar string/tuning fork affect the pitch of the sound? Are two ears better than one?	Comparative tests How does the mass of a block of ice affect how long it takes to melt? How does the surface area of water affect how long it takes to evaporate? Does seawater evaporate faster than fresh water?	Identify & Classify Can we use the classification keys to identify all the animals that we caught pond dipping?	Comparative tests How does the angle that your elbow/knee is bent affect the circumference of your upper arm/thigh? How does the skull circumference of a girl compares with that of a boy?	Comparative tests In our class, are omnivores taller than vegetarians?	

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Identify & Classify How would you organise these light sources into natural and artificial sources?



Observation over time When is our classroom darkest? Is the Sun the same

brightness all day?

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Pattern Seeking Are you more likely to have bad eyesight and to wear glasses if you are older?



Research How does the Sun make light?

BIG Question – Assessment Opportunity What is a shadow?

TAPS planning ideas:



Identify & Classify Which material is best to use for muffling sound in ear defenders?



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Observation over time When is our classroom the quietest?



Pattern Seeking Is there a link between how loud it is in school and the time of day? If there is a pattern, is it the same in every area of the school?



Research Do all animals have the same hearing range?

BIG Question -Assessment Opportunity How can we make different sounds?



Identify & Classify Can you group these materials and objects into solids, liquids, and gases?

How would you sort these objects/materials based on their temperature?



Observation over time Which material is best for keeping our hot chocolate warm? How does the level of water in a glass change when left on the windowsill?



Pattern Seeking

Is there a pattern in how long it takes different sized ice lollies to melt? How does evaporation rate change as you add more salt to your water?



How does the variety of invertebrates on the school field change over the year?



Pattern Seeking How has the use of insecticides affected bee population?



Research Why are people cutting down the rainforests and what effect does that have?

BIG Question -Assessment Opportunity Are living things in danger?

TAPS planning ideas: Local survey

Other ideas: How does the average temperature of the pond water change in each season?



Identify & Classify How do the skeletons of different animals compare?







Pattern Seeking Do male humans have larger skulls that female humans?



Research Why do different types of vitamins keep us healthy and which foods can we find them in?

BIG Question – Assessment Opportunity Why do animals have skeletons?

hat are the names for all the organs involved in the digestive system? How can we organise teeth into groups?



Observation over time How does an eggshell change when it is left in cola?



Pattern Seeking Are foods that are high in energy always high in sugar?



Research How do dentists fix broken teeth?

BIG Question – Assessment Opportunity What do our bodies do with the food we eat?

TAPS planning ideas: Teeth (eggs) in water

Other ideas: Comparing the teeth of carnivores and



		Descent	the base and so all the s		le sub-trasse sur d
Making shadows	TAPS planning ideas:	Research	Using and making	What is a healthy diet	herbivores and
	Investigating pitch	What are hurricanes,	simple guides or keys to	and why is it	suggesting reasons for
Other ideas:	String telephones	and why do	explore and identify	important?	differences
Which pair of		they happen?	local plants and animals		
sunglasses will be best	Other ideas:		Making a guide to local	TAPS planning ideas:	
at protecting our eyes?	Which material is best	BIG Question –	living things	Investigating skeletons	
Looking for patterns in	to use for muffling	Assessment	Raising and answering		
what happens to	sound in ear	Opportunity	questions based on	Other ideas:	
shadows when the light	defenders?	Where do ice cubes go	their observations of	How does the skull	
source moves or the	Are two ears better	when they disappear?	animals and what they	circumference of a girl	
distance between the	than one?	Why does it rain and	have found out about	compare with that of a	
light source and the	Finding patterns in the	hail?	other animals that they	boy?	
object changes.	sounds that are made		have researched.	Identifying and	
	by different objects	TAPS planning ideas:		grouping animals with	
	such as saucepan lids of	Cornflour slime		and without skeletons	
	different sizes or elastic	Drying materials		and observing and	
	bands of different	Measure temp		comparing their	
	thicknesses.	Dunking biscuits		movement;	
	Make earmuffs from a	-		Exploring ideas about	
	variety of different	Other ideas:		what would happen if	
	, materials to investigate	Does seawater		humans did not have	
	which provides the best	evaporate quicker than		skeletons.	
	insulation against	fresh water		They might research	
	sound.	Exploring the effect of		different food groups	
	They could make and	temperature on		and how they keep us	
	play their own	substances such as		healthy, and design	
	instruments by using	chocolate, butter.		meals based on what	
	what they have found	cream (for example to		they find out	
	out about pitch and	make food such as			
	volume	chocolate crispy cakes			
		and ice-cream for a			
		narty)			
		They could research the			
		temperature at which			
		materials change state			
		for example when iron			
		melts or when ovvgen			
		condenses into a liquid			
		They might observe			
		and record eveneration			
		and record evaporation			

			over a period of time, for example, a puddle in the playground or washing on a line, and investigate the effect of temperature on washing drying or snowmen melting.			
Objectives	Pupils should be taught to: - 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 a solid object - find patterns in the way that the size of shadows change	Pupils should be taught to: • 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	 Pupils should be taught to: compare and group materials together, according to whether they are solids, liquids or gases; observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C); identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature 	Pupils should be taught to: - recognise that living things can be grouped in a variety of ways - explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment - recognise that environments can change and that this can sometimes pose dangers to living things	 Pupils should be taught to: identify those 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; identify that humans and some other animals have skeletons and muscles for support, protection and movement 	Pupils should be taught to: • describe the simple functions of the basic parts of the digestive system in humans • identify the different types of teeth in humans and their simple functions • construct and interpret a variety of food chains, identifying producers, predators and prey