Year 1

Year 2

EYFS

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
National	Children at the expected	Working Scientifically	Working Scientifically	Working Scientifically	Working Scientifically	Working Scientifically	Working Scientifically
Curriculum	level of development will: -	<ul> <li>asking simple</li> </ul>	asking simple	<ul> <li>asking relevant</li> </ul>	<ul> <li>asking relevant</li> </ul>	<ul> <li>planning different</li> </ul>	<ul> <li>planning different</li> </ul>
		questions and	questions and	questions and using	questions and using	types of scientific	types of scientific
Pupils should be	Explore the natural	recognising that they	recognising that they	different types of	different types of	enquiries to answer	enquiries to answer
taught:	world around them,	can be answered in	can be answered in	scientific enquiries to	scientific enquiries to	questions, including	questions, including
g	making observations	different ways	different ways	answer them	answer them	recognising and	recognising and
	and drawing pictures	<ul> <li>observing closely,</li> </ul>	observing closely,	setting up simple	setting up simple	controlling variables	controlling variables
	of animals and plants.	using simple	using simple	practical enquiries,	practical enquiries,	where necessary	where necessary
	Know some	equipment	equipment	comparative and fair	comparative and fair	taking measurements,	<ul> <li>taking measurements,</li> </ul>
	similarities and			tests	tests	,	using a range of
	differences between	performing simple				using a range of scientific equipment,	scientific equipment,
	the natural world	tests	tests	making systematic and	Trianing Systematic arra		
		identifying and	identifying and	careful observations	careful observations	with increasing	with increasing
	around them and	classifying	classifying	and, where	and, where	accuracy and	accuracy and precision,
	contrasting	<ul> <li>using their</li> </ul>	using their	appropriate, taking	appropriate, taking	precision, taking	taking repeat readings
	environments,	observations and ideas	observations and ideas	accurate	accurate	repeat readings when	when appropriate
	drawing on their	to suggest answers to	to suggest answers to	measurements using	measurements using	appropriate	<ul> <li>recording data and</li> </ul>
	experiences and what	questions	questions	standard units, using a	standard units, using a	recording data and	results of increasing
	has been read in class.	<ul> <li>gathering and</li> </ul>	<ul> <li>gathering and</li> </ul>	range of equipment,	range of equipment,	results of increasing	complexity using
	Understand some	recording data to help	recording data to help	including	including	complexity using	scientific diagrams and
	important processes	in answering	in answering	thermometers and	thermometers and	scientific diagrams and	labels, classification
	and changes in the	questions.	questions.	data loggers	data loggers	labels, classification	keys, tables, scatter
	natural world around	<u>Plants</u>	Living Things and their	<ul> <li>gathering, recording,</li> </ul>	<ul> <li>gathering, recording,</li> </ul>	keys, tables, scatter	graphs, bar and line
	them, including the	<ul> <li>identify and name a</li> </ul>	<u>Habitats</u>	classifying and	classifying and	graphs, bar and line	graphs
	seasons and changing	variety of common	<ul> <li>explore and compare</li> </ul>	presenting data in a	presenting data in a	graphs	<ul> <li>using test results to</li> </ul>
	states of matter.	wild and garden	the differences	variety of ways to help	variety of ways to help	<ul> <li>using test results to</li> </ul>	make predictions to
	Participate in small	plants, including	between things that	in answering questions	in answering questions	make predictions to	set up further
	group, class and one-	deciduous and	are living, dead, and	<ul> <li>recording findings</li> </ul>	<ul> <li>recording findings</li> </ul>	set up further	comparative and fair
	to-one discussions,	evergreen trees	things that have never	using simple scientific	using simple scientific	comparative and fair	tests
	offering their own	<ul> <li>identify and describe</li> </ul>	been alive	language, drawings,	language, drawings,	tests	<ul> <li>reporting and</li> </ul>
	ideas, using recently	the basic structure of a	<ul> <li>identify that most</li> </ul>	labelled diagrams,	labelled diagrams,	<ul> <li>reporting and</li> </ul>	presenting findings
	introduced	variety of common	living things live in	keys, bar charts, and	keys, bar charts, and	presenting findings	from enquiries,
	vocabulary.	flowering plants,	habitats to which they	tables	tables	from enquiries,	including conclusions,
	Make comments	including trees.	are suited and	<ul> <li>reporting on findings</li> </ul>	<ul> <li>reporting on findings</li> </ul>	including conclusions,	causal relationships
	about what they have	Animals including Humans	describe how different	from enquiries,	from enquiries,	causal relationships	and explanations of
	heard and ask	<ul> <li>identify and name a</li> </ul>	habitats provide for	including oral and	including oral and	and explanations of	and degree of trust in
	questions to clarify	variety of common	the basic needs of	written explanations,	written explanations,	and degree of trust in	results, in oral and
	their understanding	animals including fish,	different kinds of	displays or	displays or	results, in oral and	written forms such as
		amphibians, reptiles,	animals and plants,	presentations of	presentations of	written forms such as	displays and other
		birds and mammals	and how they depend	results and	results and conclusions	displays and other	presentations
		<ul> <li>identify and name a</li> </ul>	on each other	conclusions	<ul> <li>using results to draw</li> </ul>	presentations	<ul> <li>identifying scientific</li> </ul>
		variety of common	<ul> <li>identify and name a</li> </ul>	<ul> <li>using results to draw</li> </ul>	simple conclusions,	<ul> <li>identifying scientific</li> </ul>	evidence that has been
		animals that are	variety of plants and	simple conclusions,	make predictions for	evidence that has	used to support or
		carnivores, herbivores	animals in their	make predictions for	new values, suggest	been used to support	refute ideas or
		and omnivores	habitats, including	new values, suggest	improvements and	or refute ideas or	arguments.
		<ul> <li>describe and compare</li> </ul>	microhabitats	improvements and	raise further questions	arguments.	Living Things and their
		the structure of a	describe how animals	raise further questions	<ul> <li>identifying differences,</li> </ul>	Living Things and their	<u>Habitats</u>
		variety of common	obtain their food from	<ul> <li>identifying differences,</li> </ul>	similarities or changes	<u>Habitats</u>	describe how living
		animals (fish,	plants and other	similarities or changes	related to simple	describe the	things are classified
		amphibians, reptiles,	animals, using the idea	related to simple	scientific ideas and	differences in the life	into broad groups
		birds and mammals,	of a simple food chain,	scientific ideas and	processes	cycles of a mammal,	according to common
		including pets)	and identify and name	processes	using straightforward	an amphibian, an	observable
		identify, name, draw	different sources of	<ul> <li>using straightforward</li> </ul>	scientific evidence to	insect and a bird	characteristics and
		and label the basic	food.	scientific evidence to	answer questions or to	describe the life	based on similarities
		parts of the human	1000.	Street Condended to	support their findings.	process of	and differences,
		parts or the number	l		ouppoint their initiality.	F	1

Year 3

Year 4

Year 5

Year 6

body and say which part of the body is associated with each senses

#### **Everyday Materials**

- distinguish between an object and the material from which it is made
- identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock
- describe the simple physical properties of a variety of everyday materials
- compare and group together a variety of everyday materials on the basis of their simple physical properties.

#### Seasonal Changes

- observe changes across the four seasons
- observe and describe weather associated with the seasons and how day length varies.

#### <u>Plants</u>

- observe and describe how seeds and bulbs grow into mature plants
- find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.

#### **Animals including Humans**

- notice that animals, including humans, have offspring which grow into adults
- find out about and describe the basic needs of animals, including humans, for survival (water, food and air)
- describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene.

#### **Uses of Everyday Materials**

- identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses
- find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching

answer questions or to support their findings.

#### Plants

- identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers
- explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant
- investigate the way in which water is transported within plants
- explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.

#### **Animals including Humans**

- 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.

#### Rocks

- compare and group together different kinds of rocks on the basis of their appearance and simple physical properties
- describe in simple terms how fossils are formed when things

#### <u>Living Things and their</u> <u>Habitats</u>

- 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.

#### **Animals including Humans**

- 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.

#### States of Matter

- 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.

reproduction in some plants and animals.

#### **Animals Including Humans**

 describe the changes as humans develop to old age.

#### <u>Properties and change of</u> <u>Materials</u>

- compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets
- know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution
- use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating
- give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic
- demonstrate that dissolving, mixing and changes of state are reversible changes
- explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action

- including microorganisms, plants and animals
- give reasons for classifying plants and animals based on specific characteristics.

#### **Animals Including Humans**

- identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood
- recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function
- describe the ways in which nutrients and water are transported within animals, including humans.

#### **Evolution and Inheritance**

- recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago
- recognise that living things produce offspring of the same kind, but normally 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.

#### <u>Light</u>

- recognise that light appears to travel in straight lines
- use the idea that light travels in straight lines to explain that objects

that have lived are	Sound	of acid on bicarbonate	are seen because they
trapped within rock	identify how sounds	of soda.	give out or reflect light
recognise that soils are	are made, associating	Earth and Space	into the eye
made from rocks and	some of them with	describe the	explain that we see
organic matter	something vibrating	movement of the	things because light
Light	recognise that	Earth, and other	travels from light
• recognise that they	vibrations from sounds	planets, relative to the	sources to our eyes or
need light in order to	travel through a	Sun in the solar system	from light sources to
see things and that	medium to the ear	describe the	objects and then to our
dark is the absence of	find patterns between	movement of the	eyes
light	the pitch of a sound	Moon relative to the	use the idea that light
notice that light is	and features of the	Earth	travels in straight lines
reflected from	object that produced it	describe the Sun,	to explain why
surfaces	find patterns between	Earth and Moon as	shadows have the
recognise that light	the volume of a sound	approximately	same shape as the
from the sun can be	and the strength of the	spherical bodies	objects that cast them.
dangerous and that	vibrations that	use the idea of the	Electricity
there are ways to	produced it	Earth's rotation to	associate the
protect their eyes		explain day and night	brightness of a lamp or
'	recognise that sounds     recognise that sounds	and the apparent	the volume of a buzzer
recognise that     shadows are formed	get fainter as the distance from the	movement of the sun	with the number and
when the light from a	sound source	across the sky.	voltage of cells used in
light source is blocked	increases.	Forces	the circuit
-	Electricity	<ul><li>explain that</li></ul>	compare and give
by an opaque object  find patterns in the	identify common	unsupported objects	reasons for variations
ina patterns in the	•	fall towards the Earth	in how components
way that the size of shadows change.	appliances that run on	because of the force of	function, including the
Forces and Magnets	electricity	gravity acting between	brightness of bulbs,
	<ul> <li>construct a simple series electrical circuit,</li> </ul>	the Earth and the	the loudness of
compare now annes	· ·	falling object	buzzers and the on/off
move on different surfaces	identifying and naming its basic parts,	identify the effects of	position of switches
• notice that some	including cells, wires,	air resistance, water	use recognised
forces need contact	bulbs, switches and	resistance and friction,	symbols when
between two objects,	buzzers	that act between	representing a simple
but magnetic forces	identify whether or	moving surfaces	circuit in a diagram.
can act at a distance	not a lamp will light in	recognise that some	on oure in a diagrami
observe how magnets	a simple series circuit,	mechanisms, including	
attract or repel each	based on whether or	levers, pulleys and	
other and attract	not the lamp is part of	gears, allow a smaller	
some materials and	a complete loop with a	force to have a greater	
not others	battery	effect.	
compare and group	recognise that a switch	eeeu	
together a variety of	opens and closes a		
everyday materials on	circuit and associate		
the basis of whether	this with whether or		
they are attracted to a	not a lamp lights in a		
magnet, and identify	simple series circuit		
some magnetic	recognise some		
materials	common conductors		
describe magnets as	and insulators, and		
having two poles	associate metals with		
predict whether two	being good		
magnets will attract or	conductors.		
repel each other,			
repereden other,	l		

				depending on which		
				poles are facing		
_			By the end of the ye	ear, children should be able to		
				Plants	 	
Working	Nursery:	Explore the outdoor area of	Investigate how plants	Plant seedlings to		
Scientifically	Plant seeds and care for	school and observe plants	disperse their seeds and	investigate what plants		
	growing plants.	that are growing.	why.	need to grow strong and healthy.		
	Reception:	Look at different potatoes	Explore plants that spread	nearty.		
	Explore the natural world	and potato products,	their seeds by utilising the	December 2000 the of the		
	around them	prepare tubs for growing,	wind.	Record the growth of the seedlings. Make detailed,		
		and plant a chitted potato.		labelled drawings of what		
	Explore the natural world		Make a seed helicopter and	has happened.		
	around them, making	Plant seeds in a jar or bag.	a dandelion seed.			
	observations and drawing picture of animals and plant	Predict what will happen and start to watch them	Investigate different ways	Use data loggers to record		
	s (ELG)	grow.	that plants can disperse	temperature and light over		
	3 (223)	giow.	their seeds, including seed	a 24-hour period		
		Look at flowers outside in	designed to stick on animals	-		
		the playground, make a	and humans.	Make close observations		
		large model in the		and create models of		
		classroom.	Using clay or modroc, create	sections through different		
		Land, at the different topics in	a large burr, with hooks and	fruits to discover the		
		Look at the different trees in the area. Do leaf and bark	use junk modelling to create other seeds.	difference between fruits		
		rubbings outside, create a		and vegetables.		
		large piece of art on the playground floor.	Plant beans in bags of water to investigate what they	Draw graphs, make		
		playground noor.	need to grow into healthy	drawings and write reports		
			plants. Predict what will	to explain findings from		
			happen to the bean left	investigations.		
			growing in a cupboard.			
			Record the growth of cress	Make close observations of		
			seeds and predict how long	different flowers with		
			it will take for them to be long enough to eat.	magnifiers.		
				Create bee and flower		
			Recreate a plant with craft material labelling the	models to learn how insects		
			different parts.	and other creatures are		
			directive parts.	important in the pollination		
				of flowers.		
				Discover what happens to		
				flowers after pollination		
1				Ask guastians and male		
				Ask questions and make observational drawings and		
				notes to explore different		
				fruits.		
				Make a paper seed and		
				investigate wind dispersal		
	1	1	l	mivestigate willa dispersal		

		T		hb.abiaa diffanantaniana		
				by testing different versions to find the best flier.		
Skills	Reception:	Identify the different parts	Observe and describe the	Identify and describe the		
SKIIIS	Describe what they see,	of a wild flowering plant.	growth of seeds and bulbs.	different functions of a		
	hear and feel whilst outside	or a wild flowering plant.	growth of seeds and builds.	flowering plant.		
	liear and reer willist outside	Describe what each part of a	Find out and describe what	nowering plant.		
	Explore the natural world	wild flowering plant does.	plants need to grow and	Explore what plants need		
	around them, making	wild flowering plant does.	stay healthy.	for life and growth.		
	observations and drawing	Identify a variety of	stay healthy.	Tor me and growth.		
	picture of animals and plant	common wild and garden	Explain the difference	Investigate how water is		
	s (ELG)	plants.	between seeds and bulbs.	transported within plants.		
	3 (220)	plants.	between seeds and bailbs.	transported within plants.		
	Participate in small group,		Identify and explain the	Explore what each part of		
	class and one-to-one		different parts of a plant.	the flower plays in the life		
	discussions, offering their			cycle of a flowering plant.		
	own ideas, using recently		Describe the life cycle of a			
	introduced vocabulary.		plant.	Explore what pollination		
	(ELG)			and fertilisation is.		
	·					
	Make comments about			Explore the different		
	what they have heard and			methods of seed dispersal.		
	ask questions to clarify their					
	understanding (ELG)					
Knowledge	Nursery:	Know what plants need to	Understand that seeds and	Know the different		
	Begin to understand the	grow.	bulbs grow into mature	functions of a flowering		
	need to respect and care for		plants.	plant.		
	the natural environment	Know the different parts of				
	and all living things	a wild flowering plant.	Know what plants need to	Know what plants need for		
	Hadama ad tha La	No	grow and stay healthy.	lie and growth.		
	Understand the key	Name a variety of common	Vacouth a difference	Kanan hannatan ia		
	features of the life cycle of a plant and an animal.	wild and garden plants.	Know the difference between seeds and bulbs.	Know how water is transported within plants.		
	plant and an animal.	Understand the difference	between seeds and builds.	transported within plants.		
	Reception:	between trees and	Know the different parts of	Know what each part of the		
	Understand some important	flowering plants.	a plant.	flower plats in the life cycle		
	processes and changes in	nowering plants.	a plant.	of a flowering plant.		
	the natural world around	Understand the difference	Know the life cycle of a	ar a management		
	them, including the seasons	between deciduous and	plant.	Know what pollination and		
	and changing states of	evergreen trees.		fertilisation is.		
	matter. (ELG)		Know what kind of liquid a			
			plant needs to survive and	Understand how insects and		
			stay healthy.	other creatures are		
				important in the pollination		
				of flowers.		
				Know the different methods		
				of seed dispersal.		
Vocabulary	branch	deciduous	coniferous	anchor		
	bulb	evergreen	reproduction	carbon dioxide		
	flower	germination	survival	dispersal		
	fruit	living,	Warmth	fertiliser		
	garden	Produce		life-processes		
	grow	reproduce		oval		
	leaves	seedling		oxygen		
	petals	trunk		pollen		
	plants	wild		pollination		

root seed soil stem tree vegetables weeds  Mursery: Use all their senses in hands on exploration on natural materials  Nurser is and comparing baby photos with current ones.  Reception:  Reception:  Seed formation transportation  Use everyday objects to demonstrate the human digestive system.  Seed formation  Tabulate, draw graphs and analyse data from a survey of people's diet and use it to answer questions.  Use physical activity to Research and create an infographic on baby growth.	
soil stem tree vegetables weeds  Morking Scientifically  Scientifically  Scientifically  Scientifically  Mursery: Use all their senses in hands on exploration on natural materials  Observe changes to the body over time by comparing baby photos with current ones.  Gather information about  Morking Scientifically  Scie	
stem tree vegetables weeds    Mursery: Use all their senses in hands on exploration on natural materials   Morking segs and draw what is seen.   Gather information about   Gather info	
tree vegetables weeds  Animals including Humans  Working Scientifically Use all their senses in hands on exploration on natural materials  Observe changes to the body over time by comparing baby photos with current ones.  Observe changes to the body over time by comparing baby photos with current ones.  Gather information about  Animals including Humans  Tabulate, draw graphs and analyse data from a survey of people's diet and use it to answer questions.  Use everyday objects to demonstrate the human digestive system.  Use annotated diagrams to present the key stages of foetal development.  Working Scientifically  Use annotated diagrams to present the key stages of foetal development.  Working Scientifically  Use annotated diagrams to present the key stages of foetal development.  Seen under a painting seen under a painting seen when it is an all yellow the footal development.  Seen under a painting seen under a painting seen when it is an all yellow the footal development.  Seen under a painting	
vegetables weeds  Animals including Humans  Working Scientifically Use all their senses in hands on exploration on natural materials  Working Scientifically Use all their senses in hands on exploration on natural materials  Observe changes to the body over time by comparing baby photos with current ones.  Gather information about  Animals including Humans  Tabulate, draw graphs and analyse data from a survey of people's diet and use it to answer questions.  Use everyday objects to demonstrate the human digestive system.  I Use everyday objects to demonstrate the human digestive system.  Seen under a profice of present the key stages of foetal development.  Working Scientifically  Use annotated diagrams to present the key stages of foetal development.  Seen under a profice of people's diet and use it to answer questions.  Use physical activity to  Research and create an	
Working Scientifically Use all their senses in hands on exploration on natural materials Current ones.  Mursery: Use all their senses in hands on exploration on natural materials  Observe changes to the body over time by comparing baby photos with current ones.  Gather information about  Animals including Humans  Tabulate, draw graphs and analyse data from a survey of people's diet and use it to answer questions.  Use everyday objects to demonstrate the human digestive system.  Use everyday objects to demonstrate the human digestive system.  Scientifically Use annotated diagrams to present the key stages of foetal development.  Scientifically Use physical activity to Research and create an detailed description and the properties of the prop	
Working Scientifically Use all their senses in hands on exploration on natural materials Use all their senses in hands of each of each of the current ones.  Animals including Humans  Use everyday objects to demonstrate the human of present the key stages of the comparing baby photos with current ones.  Gather information about  Animals including Humans  Use everyday objects to demonstrate the human of present the key stages of the proposed in the present the key stages of the proposed in the present the key stages of the proposed in the present the key stages of the present the key stages of the proposed in the present the key stages of the proposed in the present the key stages of the proposed in the proposed in the present the key stages of the proposed in the present the key stages of the proposed in the present the key stages of the proposed in t	
Working Scientifically Use all their senses in hands on exploration on natural materials Use all their senses in hands of each	
Working Scientifically Use all their senses in hands on exploration on natural materials  Nursery: Use all their senses in hands on exploration on natural materials  Observe changes to the body over time by comparing baby photos with current ones.  Use physical activity to  Use everyday objects to demonstrate the human digestive system.  Use everyday objects to demonstrate the human digestive system.  Use everyday objects to demonstrate the human digestive system.  Use physical activity to  Use annotated diagrams to present the key stages of foetal development.  Morking Scientifically  Use annotated diagrams to present the key stages of an detailed description and detailed description.  Use physical activity to  Research and create an accompany it.	
Scientifically Use all their senses in hands on exploration on natural materials Use all their senses in hands on exploration on natural materials Use all their senses in hands on exploration on natural materials Use all their senses in hands on exploration on natural materials Use all their senses in hands on exploration on natural current ones. Use physical activity to Use all their senses in hands on exploration on natural degs and draw what is seen. analyse data from a survey of people's diet and use it to answer questions. Use physical activity to	ing of blood as
on exploration on natural materials comparing baby photos with current ones. Gather information about of people's diet and use it to answer questions. Gather information about of people's diet and use it to answer questions. Gather information about of people's diet and use it to answer questions. Gather information about of people's diet and use it to answer questions. Getal development. The people of the people's diet and use it to answer questions. The people of the peop	
materials current ones. answer questions. answer questions. Use physical activity to Research and create an accompany it.	
Gather information about Use physical activity to Research and create an accompany it.	
Explore the natural world size, hand and foot size, hair have very young children by data, discuss, display and understanding of the	
around them, making and eye colour. Look for careful questioning. interpret findings about functions of each part of the Compare 'red books' and and food through	igh the body.
observation and drawing patterns in the whether people have digestive system. predict growth patterns.	
pictures of animals and measurements collected. Observe and record what stronger muscles because Create a human timeline.	
plants (ELG) Explore different foods happens to the body during they use them more.	
using different senses and exercise.	
classify into groups. Plan and carry out an	
investigation to answer a	
Explore how different health and fitness question.	
senses are used in the	
environment.	
Gather together safe but	
stimulating things to engage	
the different senses. Classify	
these together into the five	
sensory groups.	
Sensory groups.	
Explore animals' behaviours	
and habitats in the local	
environment and look for	
behaviour patterns.	
beliaviour patterns.	
Observe woodlice outside in	
their own habitat. Look at	
their features and predict	
what type of place a	
woodlouse would like to	
live. Create a woodlouse	
house and record where	
they go.	
Discouries as instruction to test	
Plan an investigation to test	
the absorbency of different	
types of paper. Predict	
which paper will be the best	
at soaking up the accident	
and then test them to find	
out.	

Skills	Reception: Explore the natural world around them, making observation and drawing pictures of animals and	Identify the difference between carnivores and herbivores.	Observe the development of a chicken in an egg.  Identify the differences between babies, young	Identify what types and amounts of nutrition animals and humans need.  Explain why animals have	Identify different teeth and describe their functions in humans.  Explain how different drinks	Explore the key stages of foetal development.  Identify the changes that occur during puberty.	Identify the main parts of the human circulatory system.  Describe the functions of the
Knowledge	plants (ELG)  Participate in small group, class and one-to-one discussions, offering their own ideas, using recently introduced vocabulary. (ELG)  Make comments about what they have heard and ask questions to clarify their understanding (ELG)	that are carnivores, herbivores and omnivores.  Explain how animal's teeth link to their diet.  Identify, draw and label the basic parts of the human body.  Know the names and	children, adults and elderly people.  Identify essential provisions that humans need to survive.  Investigate what happens to the human body during exercise.  Describe what humans can do to stay healthy including exercise, nutrition and hygiene.	skeletons.  Distinguish between vertebrate and invertebrate.  Decide whether an animal is an invertebrate or vertebrate. Identify the common names of the human bones.	can affect teeth.  Explain how toothpaste can help clean decay.  Describe the different parts of the digestive system.  Describe the functions of different parts of the digestive system.  Identify which living things are producers, predators and prey.  Construct and interpret different food chains.  Know the names of different	Explain what happens to the body as it gets old.  Identify the key milestones in a human life and how they impact on the body	heart, blood vessels and blood.  Describe how nutrients and water are transported in the human body.  Explain the difference between cells, tissues and muscles.
	Understand the key features of a life cycle of a plant and an animal  Begin to understand they need to respect and care for the natural environment and all living things  Reception: Explore the natural world around them, making observation and drawing pictures of animals and plants (ELG)	features of common animals.  Know the difference between carnivores and herbivores.  Name a variety of animals that are carnivores, herbivores and omnivores.  Know how animal's teeth link to their diet.  Name the basic parts of the human body.  Say which part of the human body is associated with each sense.  Know that there is variation between humans' hair colours.  Understand what	development of a chicken in an egg.  Know the differences between babies, young children, adults and elderly people.  Know which essential provisions humans need to survive.  Know what happens to the human body during exercise.  Understand what makes a healthy, balanced meal using the different food groups.	amounts of nutrition animals and humans need.  Know what a skeleton is.  Know the difference between vertebrate and invertebrate.  Know whether an animal is an invertebrate or vertebrate.  Know the common names of the human bones.  Know the difference between bones and muscles.	teeth and their functions in humans.  Know how different drinks can affect teeth.  Know how toothpaste can help clean decay.  Understand what the digestive system is.  Know what a producer, predator and prey is.  Know how to use a food chain.	foetal development.  Understand the changes that occur during puberty.  Know what happens to the body as it gets old.  Know the key milestones in a human life and how they impact on the body.	human circulatory system.  Know the functions of the heart, blood vessels and blood.  Know how nutrients and water are transported in the human body.  Know the impact of a healthy lifestyle on the way the body functions.  Know the impact of drugs on the human body.  Know the difference between cells, tissues and muscles.  Know how muscles work.
Vocabulary	(parts of the body) Beak	camouflaged means.  Amphibians carnivores	conditions desert	Bones carbohydrates	abdomen appendix	ageing Counteract	alcohol Alveoli
	chin elbow Feathers	Features herbivore Mammals	diet ethnic origin exercise	Cereals contract dairy	bile canine colon	degradation, Development Embryo	Artery balanced diet blood vessels

	l et.	1	f		C	F	Internal contra
	Fin	non-living	female	endoskeleton	Consume	Emotional	blood, vein
	Fur	omnivore	food chain	exoskeleton	Digestive system	Foetus	Capillary
	Noise	reptiles	germs	fats	enamel	Gestation	Circulatory system
	rough,	sense	growth	fibre	enzyme	Hormone	Deoxygenated
	sight	webbed feet	habitats	grains	gall bladder	Life-span	drugs
	skin		healthy	hydrostatic skeleton	gastrointestinal tract	Physical	internal organs
	horn		life-cycle	invertebrates	Gut	Processes	muscular
	smell		male	Joints	incisor	Puberty	Oxygenated
	smooth		medicine	lipids	Jaw	Womb	Pulmonary
	soft		micro-habitats	minerals	large intestine		side-effects
	Sound		Nutrients	muscles	liver		skeletal
	sour		Nutrition	Protection	metabolism		tobacco
	sweet		ocean	protein	molar		Valve
	taste		rainforest	relax	Oesophagus		Villi
	thumb		seashore	Skeleton	orifice		
			shelter	Skull	pancreas		
	toes			Support			
	tongue		stages	vitamins	predatory		
	tooth		unhealthy,	VICATIIIIS	premolar		
	Touch		woodland		rectum		
					saliva		
					salivary glands		
					small intestine		
					Vegan		
					Vegetarian		
			Living Thi	ngs and their Habitats			
Working	Nursery:		Explore outside, and		Ask relevant questions	Dissect a flower and explore	Create a classification key.
Scientifically	Use all their senses in hands		through observation, the		about living things and their	the flowering plant	,
,	on exploration on natural		differences between things		habitats and begin to group	reproduction.	Observe, record and classify
	materials		that are living, dead, and		them.		local area living things.
	acc.iais		things that have never been			Grow new plants from a	iooai ai ea iiiiigai
	Reception:		alive.		Observe local habitats and	range of parent plant parts.	Classify unusual creatures
	Explore the natural world		dive.		record living things they see	range of parent plant parts.	and plants.
	around them.		Find specimens and explain		around them.	Observe and sketch insect	and plants.
	around them.				around them.		
			how they know they are		NASIS SSSSSS	and amphibian lifecycles for	
			alive or otherwise.		Make accurate	comparison.	
					observational drawings of		
			Photograph or draw the		an invertebrate found in the	Research and sketch	
			micro-habitats in the school		local environment.	mammalian and bird life	
			grounds.		Make a group large-scale	cycles for comparison.	
					drawing of an insect.		
			Consider and draw				
			conclusions about what lives		Conduct an experiment to		
			in these microhabitats and		investigate how the		
			why.		greenhouse effect works.		
					Use the results to discuss		
			Create dioramas of different		how people are causing		
			habitats and label with		climate change.		
			research information.				
			Create a school allotment				
			and plant edible plants.				
			Research which minibeasts				
			the allotment habitat would				
			benefit from and suggest				
			Denent from and suggest			<u>l</u>	

		ideas on how to attract			
		them.			
		them.			
Skills	Reception:	Describe how a	Identify the seven	Compare the similarities and	Use a branching
	Describe what they see,	microhabitat is suited to a	characteristics of a living	differences between	classification key to identify
	hear and feel whilst outside.	particular minibeast.	thing.	animals' life cycles.	subtle differences between
					certain plants and animals.
	Recognise some	Explain what a minibeast	Organise animals into the	Explain how different	
	environments that are	will need in its microhabitat.	major groups.	animals are suitable for	Design a 'new' creature that
	different to the one in			their environment and	fits within a specific
	which they live.	Identify, explore and	Use a classification	habitat.	classification.
		compare things that are	key/branching database to		
	Participate in small group,	living, dead or never alive.	group, identify and name	Investigate ways that plants	
	class and one-to-one	Identify different sources of	living things according to their features.	reproduce asexually.	
	discussions, offering their own ideas, using recently	Identify different sources of food.	their reacures.	Describe the different parts	
	introduced vocabulary.	1000.	Consider how the local	of a dissected, real-life	
	(ELG)	Identify some wildlife in the	environment has changed.	flower including the key	
	(223)	local area.	environment has enangea.	sexual structures.	
	Make comments about		Consider natural and man-		
	what they have heard and		made changes to the	Explain how plants disperse	
	ask questions to clarify their		environment and how living	seeds.	
	understanding (ELG)		things have adapted to		
			these changes.		
			Investigate how the		
			greenhouse effect works.		
Knowledge	Nursery:	Name some different	Understand that living	Know the similarities and	Know about the seven levels
	Understand the key features of the life cycle of a	minibeasts	things can be grouped in a	differences between	of the Linnaeus' system.
	plant and an animal	Know how a microhabitat is	variety of ways.	animals' life cycles.	Understand what
	plant and an animal	suited to a particular	Know the seven	Know how different animals	microorganisms are and why
	Begin to understand the	minibeast and what it needs	characteristics of a living	are suitable for their	they are important.
	need to respect and care for	to include.	thing.	environment and habitat.	,
	the natural environment				Know how to use a
	and all living things.	Understand how a	Know how scientists use	Know how plants reproduce	branching classification key
		microhabitat provides for	similarities and differences	asexually.	to identify subtle differences
	Know that there are	the basic needs of different	as a basis for organising		between certain plants and
	different countries in the	insects.	animals.	Name the different parts of	animals.
	world and talk about the		l	a dissected, real-life flower	
	differences they have	Know things which are	Understand what climate	including the key sexual	
	experienced or seen in	living, dead or never alive.	change is.	structures.	
	photos.	Know what a habitat is and	Know natural and man-	Know how plants disperse	
	Reception:	how it is suited for different	made changes to the	seeds.	
	Know some similarities and	animals and plants.	environment and how living		
	differences between the	The second secon	things have adapted to		
	natural world around them	Understand what a food	these changes.		
	and contrasting	chain is.	=		
	environments, drawing on		Know how the local		
	their experiences and what	Know how wildlife in the	environment has changed.		
	has been read in class (ELG)	local area are part of the			
		food chain.			

discussions, offering their own ideas, using recently introduced vocabulary.  (ELG)  Make comments about what they have heard and ask questions to clarify their understanding (ELG)  Vocabulary  Dark  Dry  Leaf  Light  Coastal  Coastal  Consumer  diorama  Sunlight  Sunlight  Perfords ources  Invertebrate  minibeasts (names of minibeasts (names of minibeasts e.g., milliped, spider)  polar  polar  predator  producer  sensing  urban  Vertebrates  Metamorphosis  Metamorphosis  Metamorphosis  Metamorphosis  Metary  Nonflowering  Nonflowerind  Antheria  Antheria  Antheria  Antheria  Antheria  Antheria  A
introduced vocabulary. (ELG)  Make comments about what they have heard and ask questions to clarify their understanding (ELG)  Vocabulary  Dark Dry Leaf Light Litter Consumer Shade Sunlight Sunlight  Office of the previous of the product of minibeasts (ames of minibeasts (ames of minibeast e.g., milliped, spider) polar predator prev producer sensing urban Vocabulary  Nonflowering  Make comments about what they have heard and ask questions to clarify their adaptation Anther adaptation Anther adaptation Anther adaptation Anther anther anterpose arthropods a
(ELG)  Make comments about what they have heard and ask questions to clarify their understanding (ELG)  Vocabulary  Dry Leaf Light Litter shade Sunlight Sunlight  Sunlight  Dry Litter Shade Sunlight Shade Sunlight  Dry Litter Shade Sunlight Shade Sunlight Shade Sunlight Shade Shade Sunlight Shade Sh
Make comments about what they have heard and ask questions to clarify their understanding (ELG)  Vocabulary  Dark Dry Leaf Light Litter Shade Sunlight  Deforestation Sunlight  Deforestation Filament Mound
what they have heard and ask questions to clarify their understanding (ELG)  Vocabulary  Dark Dry Leaf Litter Litter Shade Sunlight  Consumer Shade Sh
what they have heard and ask questions to clarify their understanding (ELG)  Vocabulary  Dark Dry Leaf Leaf Litter Shade Sunlight  Description Sunight  Description Sunight  Description Description Sunight  Description Desc
ask questions to clarify their understanding (ELG)  Vocabulary  Dark Dry Leaf Light Litter Coastal Light Litter Sunlight  Sunlight  Dry Leaf Light Litter Sunlight  Dry Leaf Light Light Litter Sunlight  Dry Leaf Light Lig
Vocabulary         Dark Dry Characteristics         Antarctic anticulated Consumer         adaptation annelids anthropods anth-hotic antennae Asexual Bacteria Consumer Conception, Kingdoms Deformant Iffe domains Deformant Iffe domains Deformant Iffe domains Consumer
Vocabulary         Dark Dry         Antarctic artic         adaptation annelids anthropods anthropod anthro
Dry Leaf Light Light Litter shade Sunlight Sunlight  Litter Sunlight  Litt
Light Litter Consumer Shade Sunlight  Sunlight  Coastal Consumer Sunlight  Mould  Mould  Mould  Mould  Mould  Organisms
Litter shade consumer diorama bark Dormant life domains life domains climate change Egg Linnaean Microorganisms Invertebrate minibeasts (names of minibeast e.g., milliped, spider) polar predator predy producer sensing urban vertebrate without and the minibeast of the more producer sensing urban vertebrate without and the more producer sensing urban vertebrate where polar producer sensing urban vertebrate without and the minibeast e.g., milliped, spider) producer sensing urban vertebrate where polar producer sensing urban vertebrates backbone conception, Dormant life domains life domains climate life domains climate Egg Egg Linnaean Microorganisms Pertilisation Filament Mould organisms organisms organisms excretion global warming Germinate producer greenhouse gases gestation period populations producer sensing matural Metamorphosis natural Metamorphosis natural sensing Nonflowering Nonflowering Nonflowering Nonflowering Nonflowering respiration Ovary
shade Sunlight  diorama energy food sources Invertebrate minibeasts (names of minibeast e.g., milliped, spider) polar predator prev producer sensing urban Vertebrate  Nicroorganisms Hilament Deforestation Environment Envir
Sunlight  energy food sources Invertebrate minibeasts (names of minibeast e.g., milliped, spider) polar predator prey producer sensing urban Vertebrates  energy food sources Invertebrate crustaceans Deforestation Environment Environment Environment Environment Environment Eledglings Garmetes Penicillin Mould Mould Fledglings Organisms Predidin Mould Gametes Penicillin Phylum Poplar greenhouse gases gestation period puvenile taxonomy Yeast  Metamorphosis Nectary Nonflowering Nymph Vertebrates  Climate change Crustaceans Fertilisation Microorganisms Mould Organisms Mould Organisms Mould Organisms Mould Organisms Mould Organisms Mould Mould Fledglings Organisms Organisms Organisms Organisms Mould Organisms Mould Organisms Pretidisation Mould Organisms Penicillin Phylum Phylum Populations taxonomy Yeast  Veast  Veast  Veast  Vertebrates  Nonflowering Nymph Vertebrates  Climate change Egg Linnaean Microorganisms Mould Organisms Organisms Organisms Mould Organisms O
food sources Invertebrate Inver
Invertebrate minibeasts (names of minibeast e.g., milliped, spider) polar predator prey producer sensing urban Vertebrates  Invertebrate minibeasts (names of minibeast e.g., milliped, spider) polar producer sensing urban Vertebrates  Invertebrate  Deforestation Filament Fledglings Gametes Penicillin Phylum Polar pescretion global warming greenhouse gases gestation period juvenile taxonomy Yeast  Metamorphosis Nectary Nonflowering Nymph Vertebrates  Nonflowering Nymph Vertebrates  Deforestation Filament Mould Organisms Penicillin Phylum Populations taxonomy Yeast  Metamorphosis Nectary Nymph Vertebrates  Ovary
minibeasts (names of minibeast e.g., milliped, spider) polar predator prevy producer sensing urban Vertebrates  minibeasts (names of minibeast e.g., milliped, spider)  minibeasts (names of minibeasts (names of minibeast e.g., milliped, spider)  global warming greenhouse gases gestation period populations taxonomy producer molluscs Male Yeast  Metamorphosis Nectary Nonflowering Nymph Vertebrates  Environment Eledglings organisms Phylum Populations taxonomy Yeast  Netamorphosis Nectary Nonflowering Nymph Vertebrates  Ovary
minibeast e.g., milliped, spider) polar predator prey producer sensing urban Vertebrates  minibeast e.g., milliped, spider) ground for producer sensing urban Vertebrates  minibeast e.g., milliped, spider) global warming greenhouse gases gestation period juvenile taxonomy Yeast  Male Yeast  Nonflowering Nonflowering respiration  Ovary
spider) polar predator prey producer sensing urban Vertebrates  spider) polar predator predator predator predator predator prey producer sensing urban Vertebrates  spider) global warming greenhouse gases gestation period predator predator predator producer producer natural Nonflowering producer Nonflowering predation predator
polar greenhouse gases gestation period juvenile taxonomy prey molluscs Male Yeast producer sensing urban Vertebrates greenhouse gases human impact juvenile taxonomy molluscs Male Yeast Metamorphosis Nectary Nymph Vertebrates greenhouse gases gestation period juvenile taxonomy Yeast Nonflowering Nymph Ovary
predator prey molluscs Male Yeast producer sensing urban Vertebrates human impact juvenile taxonomy Yeast Nonflowering Nymph Vertebrates human impact juvenile taxonomy Yeast Netamorphosis Netary Nonflowering Nymph Vertebrates respiration Ovary
prey molluscs Male Yeast producer natural Metamorphosis sensing nature reserves Nectary urban Vertebrates Nonflowering respiration Ovary
producer natural Metamorphosis sensing nature reserves Nectary urban Vertebrates respiration Ovary
sensing urban Nonflowering Nymph Vertebrates respiration Ovary
urban Vertebrates Nonflowering Nymph Ovary
Vertebrates respiration Ovary
segments Ovules
'
thorax Pregnancy urbanisation, Propagation
warm and cold blooded Pupa
sea anemone
Sepal
Sexual
Stamen
Stigma
Style
Tuber
Everyday materials
Working Nursery: Investigate challenges using Investigate which papers
Scientifically Use all their senses in hands on exploration of natural use all their senses in hands on exploration of natural use all their senses in hands on exploration of natural use all their senses in hands on exploration of natural use all their senses in hands on exploration of natural use all their senses in hands on exploration of natural use all their senses in hands on exploration of natural use all their senses in hands on exploration of natural use all their senses in hands on exploration of natural use all their senses in hands on exploration of natural use all their senses in hands on exploration of natural use all their senses in hands on exploration of natural use all their senses in hands on exploration of natural use all their senses in hands on exploration of natural use all their senses in hands on exploration of natural use all their senses in hands of the natural use all their senses in hands of the natural use all the natural u
materials Create games in the Devise an investigation to
classroom using the test a variety of materials
Explore collections of magnets. for their absorbent
materials with similar property.
and/or different properties
using a pipette to simulate Explore different fabrics and
Reception: raindrops and consider why investigate how waterproof

	T			T		
	Explore the natural world	some materials let water	they are using a dropper of			
	around them, making	through and others do not.	water.			
	observation and drawing					
	pictures.	Look at a selection of	Explore the textures and			
	p.ota. co.	materials and consider	properties of different			
		which one is best for fixing a	materials by printing with a			
			selection of items.			
		torn umbrella. Explain your	selection of items.			
		selection and predict the				
		outcome.	Explore the waterproof			
			properties of wax by			
		Watch a block of ice melt	creating a wax resist			
		and record the changes.	picture.			
		_				
		Working with play figures	Investigate which ball is the			
		frozen in ice, devise an	bounciest, plot the results			
		investigation to release	on a chart.			
			on a chart.			
		them.	Davids on investigation to			
			Devise an investigation to			
		Observe what happens to a	test the elasticity of a fabric			
		puddle over time and record	and record the results.			
		the results.				
			Examine a selection of			
			different materials and			
			explore their rigidity by			
			devising an investigation to			
			test them.			
			test them.			
			Tost the papers using			
			Test the papers using			
			weights to find the			
			strongest one and record			
			the results.			
			Build a paper bridge strong			
			enough to hold a toy car.			
Skills	Nursery:	Recognise the properties of	Identify materials that are			
	Talk about the differences	different materials.	absorbent.			
	between materials and					
	changes they notice	Explain why different	Identify materials that are			
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	materials are used for	waterproof.			
	Reception:	certain objects.				
	Participate in small group,	certain objects.	Identify materials that are			
	class and one-to-one	Match adjectives to				
			transparent and opaque.			
	discussions, offering their	describe the properties of	Ideal Control of the			
	own ideas, using recently	different materials.	Identify the similarities and			
	introduced vocabulary.		differences of a variety of			
	(ELG)	Sort and group objects	everyday materials.			
		based on the properties of				
	Make comments about	the materials.	Explain how the shapes of			
	what they have heard and		solid objects made from			
	ask questions to clarify their	Explain what different	some materials can be			
	understanding (ELG)	materials are used for.	changed.			
	(,		3-3-			
			Choose the best materials			
			to use to build an object.			
			to use to build all object.			

		W	I was a second second			
Knowledge	Reception:	Know the properties of	Know which materials are			
	Understand some important	different materials.	best for certain uses.			
	processes and changes in					
	the natural world around	Know why different	Know the properties of a			
	them, including the seasons	materials are used for	variety of everyday			
	and changing states of	certain objects.	materials and objects.			
	matter. (ELG)					
		Know the similarities and	Know how and why the			
		differences between the	shapes of solid objects			
		physical properties of	made from some materials			
		everyday materials.	can be changed.			
		Know what different	Understand that different			
		materials are used for.	everyday materials have			
			different levels of buoyancy.			
			, ,			
			Know which materials float			
			best.			
Vocabulary	Dull	absorbent	Fabric			
	Glass	bendy/not bendy	Firm			
	Hard	magnetic	Flexible			
	metal	man-made	Reflective			
	Plastic	material	Rubber			
	Rough	natural	Translucent			
	Shiny	opaque	Transparent			
	Smooth	pipet,				
	Soft	Properties	Windproof			
	Wood	Stiff				
	wood	Stretchy				
		waterproof/not waterproof				
		waterproof/flot waterproof	Droportios s	Lond changes of materials		
Maralia a	No. or a series		riopeities a	lina changes of materials	Incontinute bond materials	
Working	Nursery:				Investigate hard materials	
Scientifically	Use all their senses in hands				suitable for food	
	on exploration of natural				preparation.	
	materials				Investigate thermal	
					insulating properties of	
	Explore collections of				materials to keep	
	materials with similar				refreshments hot or cold.	
	and/or different properties					
					Investigate possible food	
					packaging materials.	
					Investigate the absorbency	
					of materials suitable for	
					cleaning.	
					Investigate electrical	
					insulators/conductors for	
					health and safety purposes.	
					Investigate materials that	
					combine soundproofing	
					with comfort.	

				Explore methods to	
				separate mixed materials	
				back into their constituent	
				parts. Write up the	
				experiments.	
01.111				Make new materials.	
Skills	Nursery:			Compare the similarities and	
	Talk about the differences			differences of properties of	
	between materials and			everyday materials.	
	changes they notice			Investigate soluble and non-	
	Reception:			soluble materials.	
	Participate in small group,			Soluble materials.	
	class and one-to-one			Identify which mixtures can	
	discussions, offering their			be separated through	
	own ideas, using recently			filtering, sieving and	
	introduced vocabulary.			evaporating.	
	(ELG)				
	. ,			Identify some chemists who	
	Make comments about			have invented new	
	what they have heard and			materials.	
	ask questions to clarify their				
	understanding (ELG)				
Knowledge	Reception:			Know the similarities and	
	Understand some important			differences of properties of	
	processes and changes in			everyday materials.	
	the natural world around				
	them, including the seasons			Know which materials are	
	and changing states of			soluble and non-soluble.	
	matter. (ELG)			Karan that are are as into are	
				Know that some mixtures can be separated through	
				filtering, sieving and	
				evaporating.	
				evaporating.	
				Know the difference	
				between reversible and	
				irreversible.	
				Understand that dissolving,	
				mixing and changes of state	
				are reversible changes.	
				Know some changes result	
				in the formation of new	
				materials, and that this kind	
				of change is not usually	
				reversible.	
Vocabulary				Chemical	
				condense	
				Conductivity	
				Dissolving	
				evaporate,	
				Filter	

Noveledge   Nove		
South Several Control of Control		Insoluble
Property		Irreversible
Solublish Solubl		
Soluble Transparency Transpare		
Solute Solute Solution Transparency Transparen		
Solute Solution Investigate the presence of East the presenc		
Solution solution themal Transparency  Working Scientifically  Working Scientifically  Working Scientifically  Solution solution themal Transparency  Working Scientifically  Solution solution themal Transparency  Beamine and compare the properties of and and worker.  In properties of sand and worker.  Use a thermometer to make observations as water changes from one state to solven the properties of solven the properti		
States of Matter  States of Ma		Solute
States of Matter  Working Scientifically  Working Scie		Solution
Same   Supersion   Supersion   Supersion   Supersion   Supersion   Supersion   Transparency		
States of Matter   States of M		Superior
States of Matter  Working Scientifically  Scientifically  Scientifically  Scientifically  Scientifically  Scientifically  Scientifically  States of Matter  Examine and compare the properties of and and water.  Investigate the presence of gases.  Use a thermometer to make observations as water changes from one state to another.  Discrimination of the state of the stat		
Scientifically   Scie		
Scientifically  Scientifically		Transparency
Scientifically  Investigate the presence of gases.  Use a thermometer to make observations at water changes from one state to another.  Skills  Skills  King a service of the service of solids, fluids and gases.  Explain what happens when a sweets for opped into a fizzy drink.  Explain what happens when a fizzy drink.  Explain what happens when a liquid is forcen. Describe what happens at each stage in the water cycle.  Knowledge  Knowledge  Knowledge  Understand how particles between a solid, fluid and a gas.  Understand what exportation and condensation is.  Understand what exportation and condensation is.		States of Matter
Scientifically  Investigate the presence of gases.  Use a thermometer to make observations at water changes from one state to another.  Skills  Skills  King a service of the service of solids, fluids and gases.  Explain what happens when a sweets for opped into a fizzy drink.  Explain what happens when a fizzy drink.  Explain what happens when a liquid is forcen. Describe what happens at each stage in the water cycle.  Knowledge  Knowledge  Knowledge  Understand how particles between a solid, fluid and a gas.  Understand what exportation and condensation is.  Understand what exportation and condensation is.	Marking	Furming and sampage the
Water.  Investigate the presence of gases.  Use a thermometer to make observations as water changes from one state to another.  Skills  Skills  Describe the properties of solids, figuids and gases.  Explain what happens when a sweet is dropped into a fizzy drink.  Explain what happens when chocolate is melted and cooled.  Explain what happens when a liquid is frozen Describe what happens at each stage in the water open a liquid is frozen Describe what happens at each stage in the water open.  Knowledge  Knowledge  Vocabulary  Vocabulary  Vocabulary  Change of state Collection	Working	examine and compare the
Investigate the presence of gases.  Use a thermometer to make observations as water changes from one state to another.  Skills  Describe the properties of solids, liquids and gases.  Explain what happens when a sweet is dropped into a fizzy drink.  Explain what happens when chocolate is melted and cooled.  Explain what happens when a liquid is frozen.  Describe what happens when a liquid is frozen.  Describe what happens at each stage in the water cycle.  Know the difference between a solid, liquid and a gas.  Understand how particles behave in different states.  Understand what evaporation and condensation is.  Vocabulary  Vocabulary  Collection	Scientifically	
Skills   S		water.
Skills   S		
Skills   S		Investigate the presence of
Use a thermometer to make observations as water changes from one state to another.		
observations as water changes from one state to another.  Skills  Skills  Describe the properties of solids, liquids and gases.  Explain what happens when a sweet is dropped into a fizzy drink.  Explain what happens when chocolate is melted and cooled.  Explain what happens when a liquid is frozen.  Describe what happens at each stage in the water cycle.  Knowledge  Knowledge  Knowledge  Understand how particles behave in different states.  Understand what evaporation and coordenation is.  Vocabulary  Vocabulary  Coordenation is.  Condenation is.  Change of state Collection		gases.
observations as water changes from one state to another.  Skills  Skills  Describe the properties of solids, liquids and gases.  Explain what happens when a sweet is dropped into a fizzy drink.  Explain what happens when chocolate is melted and cooled.  Explain what happens when a liquid is frozen.  Describe what happens at each stage in the water cycle.  Knowledge  Knowledge  Knowledge  Understand how particles behave in different states.  Understand what evaporation and coordenation is.  Vocabulary  Vocabulary  Coordenation is.  Condenation is.  Change of state Collection		
Skills  Skills  Changes from one state to another.  Describe the properties of sollids, liquids and gases.  Explain what happens when a sweet is dropped into a fizzy drink.  Explain what happens when chocolate is melted and cooled.  Explain what happens when a liquid is frozen.  Describe what happens at each stage in the water cycle.  Knowledge  Knowledge  Understand how particles behave in difference between a sollid, liquid and a gas.  Understand what evaporation and condensation is.  Vocabulary  Vocabulary  Change of state Collection		
Skills  Skills  Skills  Changes from one state to another.  Describe the properties of solids, liquids and gases.  Explain what happens when a sweet is dropped into a fizzy drink.  Explain what happens when chocolate is melted and cooled.  Explain what happens when a liquid is frozen.  Describe what happens at each stage in the water cycle.  Knowledge  Knowledge  Understand how particles behave in different states.  Understand what evaporation and condensation is.  Vocabulary  Vocabulary  Change of state Collection		observations as water
Skills  Skills		changes from one state to
Skills    Part		
Knowledge  Knowledge  Kooklange of the content of t	Chille	
Explain what happens when a sweet is dropped into a fizzy drink.  Explain what happens when chocolate is melted and cooled.  Explain what happens when a liquid is frozen.  Explain what happens when a liquid is frozen.  Describe what happens at each stage in the water cycle.  Knowledge  Know the difference between a solid, liquid and a gas.  Understand how particles behave in different states.  Understand what evaporation and condensation is.  Vocabulary  Vocabulary  Coclection  Explain what happens when a liquid is frozen.  Explain what happens when chocolate is melted and cooled.  Explain what happens when chocolate is me	SKIIIS	Describe the properties of
A sweet is dropped into a fizzy drink.   Explain what happens when chocolate is melted and cooled.   Explain what happens when a liquid is frozen.   Describe what happens at each stage in the water cycle.   Knowledge   K		solids, liquids and gases.
A sweet is dropped into a fizzy drink.   Explain what happens when chocolate is melted and cooled.   Explain what happens when a liquid is frozen.   Describe what happens at each stage in the water cycle.   Knowledge		
A sweet is dropped into a fizzy drink.   Explain what happens when chocolate is melted and cooled.   Explain what happens when a liquid is frozen.   Describe what happens at each stage in the water cycle.   Knowledge		Explain what happens when
Fizzy drink.   Explain what happens when chocolate is melted and cooled.   Explain what happens when a liquid is frozen.   Describe what happens at each stage in the water cycle.   Know the difference between a solid, liquid and a gas.   Understand how particles behave in different states.   Understand what evaporation and condensation is.		a sweet is dropped into a
Knowledge		firm deliak
Knowledge Knowledge  K		1122y Utilik.
Knowledge Knowledge  K		
Knowledge Knowledge  K		Explain what happens when
Knowledge  Knowledge  Knowledge  Knowledge  Knowledge  Knowledge  Knowledge  Knowledge  Knowledge  Know the difference between a solid, liquid and a gas.  Understand how particles behave in different states.  Understand what evaporation and condensation is.  Change of state Collection		chocolate is melted and
Knowledge  Knowledge  Knowledge  Knowledge  Knowledge  Knowledge  Knowledge  Knowledge  Knowledge  Know the difference between a solid, liquid and a gas.  Understand how particles behave in different states.  Understand what evaporation and condensation is.  Change of state Collection		
Knowledge		
Knowledge		Explain what happens when
Knowledge  Knowledge  Knowledge  Knowledge  Knowledge  Knowledge  Knowledge  Know the difference between a solid, liquid and a gas.  Understand how particles behave in different states.  Understand what evaporation and condensation is.  Vocabulary  Change of state Collection  Colle		Explain what happens when
Knowledge		
Knowledge		Describe what happens at
Knowledge Knowledge Know the difference between a solid, liquid and a gas.  Understand how particles behave in different states.  Understand what evaporation and condensation is.  Vocabulary Collection  Cycle. Know the difference between a solid, liquid and a gas.  Understand how particles behave in different states.  Understand what evaporation and condensation is.  Collection  Collection  Cycle. Know the difference between a solid, liquid and a gas.  Understand what evaporation and condensation is.		each stage in the water
Knowledge Know the difference between a solid, liquid and a gas. Understand how particles behave in different states. Understand what evaporation and condensation is.  Vocabulary Change of state Collection Collection Change of state Collection		cycle.
between a solid, liquid and a gas.  Understand how particles behave in different states.  Understand what evaporation and condensation is.  Vocabulary  Change of state Collection	Knowledge	
Second Company   Seco	Milowicuge	
Understand how particles behave in different states.  Understand what evaporation and condensation is.  Vocabulary  Change of state Collection		
behave in different states.  Understand what evaporation and condensation is.  Vocabulary  Change of state Collection		gas.
behave in different states.  Understand what evaporation and condensation is.  Vocabulary  Change of state Collection		
behave in different states.  Understand what evaporation and condensation is.  Vocabulary  Change of state Collection		Understand how particles
Vocabulary  Understand what evaporation and condensation is.  Change of state Collection		behave in different states.
Vocabulary  Collection  evaporation and condensation is.  Change of state Collection		
Vocabulary  Collection  evaporation and condensation is.  Change of state Collection		Understand what
Vocabulary     condensation is.       Change of state       Collection		Onderstand what
Vocabulary change of state Collection		evaporation and
Vocabulary change of state Collection		condensation is.
Collection	Vocabulary	
	,	Collection
Condensation		
Contendation		
Cooling		Condensation

				Energy evaporation Freeze Gas Liquid melting point	
				Particles precipitation Process Solid State states of matter	
				water cycle water droplets water vapour	
		Sea	<u>L</u> asonal Changes	-	
Working Scientifically	Observe the temperature and wind outside.				
	Take the temperature outside in the morning and the afternoon. Record these observations in the classroom and discuss the changes.				
	Track a shadow by observing and measuring it over time.				
	Make a bar chart of paper strips of shadow length plotted against time intervals.				
	Set up rainfall gauges up in the playground and record the rainfall over a period of time.				
	Make a windsock to measure wind direction and a wind vane to measure the direction of the wind.				
	Make a thermometer box to house a thermometer and use it outside in the playground.				
	Children write a list of equipment needed.				

		1					
Skills	Reception:	Identify objects that match					
	Participate in small group,	to each season.					
	class and one-to-one						
	discussions, offering their	Investigate how shadows					
1	own ideas, using recently	change during the day.					
	introduced vocabulary.						
	(ELG)	Identify the similarities and					
	`	differences between					
	Make comments about	difference seasons.					
	what they have heard and						
	ask questions to clarify their						
	understanding (ELG)						
Knowledge	Nursery:	Understand what the					
·····ouse	Know that there are	weather is.					
	different countries in the	weather is:					
	world and talk about the	Know that weather					
	differences they have	forecasters tell us what					
	experienced or seen in	weather to expect.					
	photos	weather to expect.					
	μποτος	Know what happens in					
	Danastian.	Know what happens in					
	Reception:	different seasons.					
	Understand the effect of	Understand what he are are					
	changing seasons on the	Understand what happens					
	natural world around them	to the day length in					
	1	different seasons.					
	Understand some important						
	processes and changes in	Name the earth, sun and					
	the natural world around	moon in the solar system.					
	them, including the seasons						
	and changing states of						
	matter. (ELG)						
Vocabulary	Autumn	Heat					
	Rain	Overcast					
	Seasons	temperature					
	Snow						
	Spring						
	Summer						
	Sunny						
	weather						
	Windy						
	Winter						
	-	-	-	Light	-	=	-
Working				Investigate the nature of			Investigate and demonstrate
Scientifically				darkness, light and sight			that light travels in straight
				with a torch, a cardboard			lines.
				box and pencil holes.			
							Investigate how light reflects
				Predict and then investigate			by making a periscope.
				how well different colours			, . 0
				and materials reflect light in			Investigate shadows and
				a simulated dark cave. Use			how they change as a result
				results to sort and classify			of light sources.
				the samples.			or light sources.
				uie sampies.			Evaloro salit light /finding
							Explore split light (finding
							'rainbows').

			Discover the properties of	 	
			mirrors and reflections by		Investigate coloured light
			undertaking different		mixing.
			investigative tasks and use		S
			scientific knowledge on light		
			to explain findings.		
			Investigate how different		
			objects create shadows.		
			Conduct of City and the find		
			Conduct a fair test to find the precise relationship		
			between the distance of a		
			torch and the size of a		
			shadow.		
			Investigate how coloured		
			light beams mix and what		
			it's like to look through		
			different coloured filters.		
Claille			Explain how light travels.		Explain why shadows have
Skills			Describe the difference		the same shape as the objects that cast them.
			between opaque,		objects that cast them.
			translucent and transparent		Explain what transparent,
			objects.		translucent and opaque
			objects.		mean and why they are
			Explain how shadows are		used.
			formed.		
Knowledge			Understand that we need		Understand that light travels
			light in order to see things.		in straight lines.
					w 1 u 6
			Know that dark is the		Know how the Sun causes shadows.
			absence of light.		Silduows.
			Understand that light is		Understand how light is
			reflected from surfaces,		affected by transparent,
			including mirrors.		translucent and opaque
					objects.
			Understand that light from		
			the Sun can be dangerous.		Know that objects are seen
			W h h		because they give out or
			Know how to protect my		reflect light into the eye.
			eyes from the Sun.		
Vocabulary			Beam		absence of light
,			block		Absorb
			Bounce		Emitted
			Glare		Refraction
			Light source		Scattered
			Ray		
			Reflect		
			Transparent		
			Visible		
		Force	es and Magnets		

Working	Nursery:		Ask questions and then	Investigate parachutes and	
Scientifically	Explore how things work.		investigate how toy vehicles	air resistance.	
Scientifically	Explore now things work.			an resistance.	
			run on different surfaces.		
	Explore and talk about			Investigate and create levers	
	different forces they can		Investigate how it is forces	and pulleys.	
	feel			and paneys.	
	leei		that make things move		
			(pushes and pulls) and that	Investigate gears.	
	Reception:		magnetic forces can move		
	Explore the natural world		things at a distance without	Investigate friction.	
	1			mvestigate metion.	
	around them		forces touching.		
				Investigate boats and water	
			Investigate how magnets	resistance.	
			attract some materials and		
			not others.		
			Investigate the polarisation		
			of magnets, making		
			predictions and testing		
			ideas.		
			Write the method for an		
			experiment.		
Skills	Nursery:		Identify different forces.	Identify the effects of	
JKIIIS			identity different forces.		
	Talk about what they see,			different types of forces.	
	using a wide range of		Discover which forces need		
	vocabulary.		contact between two	Investigate the impact of	
			objects and which ones do	levers, pulleys and gears on	
	Reception:		not need any contact.	forces.	
	Participate in small group,				
	class and one-to-one		Identify materials that are		
	discussions, offering their		attracted to a magnet and		
	own ideas, using recently		materials that are magnetic.		
	introduced vocabulary.				
	(ELG)		Explain how magnets are		
	(223)				
			used in everyday life.		
	Make comments about				
	what they have heard and				
	ask questions to clarify their				
	understanding (ELG)				
Knowledge	Reception:		Understand what a force is.	Understand what gravity is.	
I	Understand some important			l	
			Know which forces need	Understand white	
	processes and changes in		Know which forces need	Understand why	
	the natural world around		contact between two	unsupported objects fall	
	them, including the seasons		objects and which ones do	towards the Earth.	
	and changing states of		not need any contact.		
			Hot need any contact.		
	matter. (ELG)				
			Know that magnets attract		
			or repel each other and		
			some materials and not		
			others.		
			Understand how magnetic		
			forces can act at a distance.		

			Know that magnets have		
			two poles.		
Vocabulary	magnet		attract	Brake	
			compass	Cog	
			Force	Gears	
			force meter	Gravitation	
			Friction	Gravity	
			Iron	Lever	
			Magnetic	Mechanism	
			magnetic field	Newton	
			names of magnets	Opposing	
			non-magnetic	Pulleys	
			Poles	Resistance	
			repel	streamline	
			spring		
			surface		
			swerve		
			Water resistance		
			Rocks		
Working			Observe, group, draw,		
Scientifically			describe and name rock		
,			samples.		
			Samples.		
			Investigate different kinds		
			of rocks' physical		
			properties.		
			Investigate the properties of		
			different rocks with fair		
			testing e.g., permeability,		
			hardness and an acid test		
			for the presence of calcium		
			carbonate.		
			Identify different rocks for		
			different purposes in the		
			local area. Record findings.		
			Investigate different soils,		
			asking questions and		
			seeking answers through a		
			variety of scientific		
			enquiries (exploring/		
			classifying and identifying		
			/fair testing)		
Skills			Use a rock identification		
-			key.		
			- 1		
			Explain how fossils are		
			formed.		
			Torrica.		
			Describe how soil is formed.		
			Describe now soil is formed.		

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Knowledge			Know the differences		
			between igneous,		
			sedimentary and		
			metamorphic rocks.		
			Know how fossils are		
			formed.		
			Know what palaeontology is		
			and what a palaeontologist		
			does.		
			does.		
			Name different types of soil.		
Masshulami					
Vocabulary			anthropic		
			base rock		
			body fossil		
			cast fossil		
			chemical fossil		
			Extinct		
			igneous		
			Impermeable		
			lava		
			magma		
			metamorphic		
			mould fossil		
			organic matter		
			Permeable		
			replacement fossil		
			sediment		
			sedimentary		
			sub soil		
			topsoil		
			trace fossil		
			Electricity		
Working	Nursery:			Identify electrical	Investigate a range of simple
Scientifically	Explore how things work.			components and explore	electric circuit challenges
				electrical circuits.	(planning/fair
					testing/exploring).
				Test different materials to	
				see whether or not they	Investigate the effects of
				complete a circuit.	voltage and number of
					components on a working
					circuit.
					Draw circuit diagrams.
					Draw circuit diagrams.
					Design and make a dimmer
					switch.
					Switti.
					Dosign and overta a light
					Design and create a light
					decoration circuit.

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Skills	Nursery:		Identify electrical dangers	Set up a range of circuits to
	Talk about what they see,		around the home.	identify how they work and
	using a wide range of			how to achieve a range of
	vocabulary.		Identify which appliances	effects.
	vocabulary.			effects.
			need electricity.	
	Reception:			
	Participate in small group,		Identify basic parts of a	
	class and one-to-one		circuit.	
			circuit.	
	discussions, offering their			
	own ideas, using recently		Build a circuit.	
	introduced vocabulary.			
			Frankia roku a arribak ia	
	(ELG)		Explain why a switch is	
			important in a circuit and	
	Make comments about		what it does.	
	what they have heard and			
	ask questions to clarify their		Predict what would happen	
	understanding (ELG)		if there was a break in the	
			circuit.	
			circuit.	
			Identify materials which are	
			good conductors or	
			insulators.	
			ilisulators.	
			Explain why metals are good	
			conductors.	
			conductors.	
			Identify objects which are	
			good conductors or	
			insulators and explain why.	
Vacantadas	Describer:			Karaman la la la manana la la la manana
Knowledge	Reception:		Know what electricity is and	Know which symbols to use
	Understand some important		why it is important.	when representing a simple
	processes and changes in			circuit in a diagram.
	the natural world around		Know which appliances	ŭ
				Karamatha affaat af tha
	them, including the seasons		need electricity.	Know the effect of the
	and changing states of			voltage of cells used in a
	matter. (ELG)		Name basic parts of a	circuit on the brightness of a
			circuit.	lamp or the volume of a
			circuit.	
				buzzer.
			Understand what makes a	
			complete circuit.	
			Tampiece on outer	
			1	
			Know what a switch is and	
			why it is important in a	
			circuit.	
			I.,	
			Know what would happen if	
	1		there was a break in the	
			circuit.	
			Know what a conductor and	
			insulator is.	
			Know which materials and	
			objects are good conductors	
	Ī		or insulators.	

Vacabulani	alastriait.		Appliances	latam
Vocabulary	electricity,		Appliances	atom
			Buzzer	Dimmer
			Cell	electrical symbols
			Circuit	electrons
			component	neutrons
			Conductor	nucleus
			crocodile clips	Parallel circuit
			electric current	protons
			electrical insulator	series circuit
			fossil fuels	
			insulator,	
			Mains	
			Motor	
			renewable energy	
			Wires	
		 Sound		
Working			Investigate vibrations and	
Scientifically			how sound travels.	
			1	
			Investigate pitch and	
			volume by exploring	
			instruments and the	
			different sounds they make.	
			Plan and conduct an	
			investigation into which	
			material best reduces the	
			sounds we hear.	
Skills	Nursery:		Explain how sound	
	Listen with increased		vibrations travel through a	
	attention to sounds.		medium to the ear.	
			Describe how musical	
	Reception:		instruments make sound.	
	Listen attentively, move to		moti umento make souna.	
	and talk about music,		Explain how different	
	expressing their feelings		sounds are made, including	
	and responses.		higher and lower pitch.	
	Describe what they see		Investigate why some	
	Describe what they see,		materials are better for	
	hear and feel whilst outside			
			sound to travel through	
	Participate in small group,		than others.	
	class and one-to-one			
	discussions, offering their		Describe how the length of	
	own ideas, using recently		the vibration can affect the	
	introduced vocabulary.		sound.	
	(ELG)			
			Describe how distance can	
	Make comments about		affect the sound.	
	what they have heard and			
	ask questions to clarify their			
	understanding (ELG)			
			L	

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Knowledge	Understand sounds they			Know what vibrations are		
	have heard.			and how they travel through		
				a medium to the ear.		
				Understand how musical		
				instruments make sound.		
				ilistruments make sound.		
				Understand how the shape		
				of an ear affects how we		
				hear sounds		
				Know why some materials		
				are better for sound to		
				travel through than others.		
Vocabulary	quiet, loud, ear,			Amplitude		
Vocabalary	quiet, loud, cui,					
				Pitch		
				vibration		
				Volume		
				Wave		
			Earth and Space			
Working			·		Develop enquiry questions.	
Scientifically					, , , , ,	
,					Create a scale model of the	
					solar system.	
					Solai System.	
					Create an orrery to explore	
					heliocentricity.	
					Set up an investigation to	
					demonstrate that the Earth	
					spins on its own axis.	
					Create a sundial and explore	
					time zones.	
					time zones.	
					Implement some	
					investigations to show why	
					the moon appears to change	
					shape throughout the	
					month	
Skills					Explain the movement of	
					the Moon in relation to the	
					Earth.	
					Explain why we have day	
					and night and how the Earth	
					orbits the Sun.	
					orbits the sun.	
					Evaluin how a sundial warter	
					Explain how a sundial works	
					and why we have different	
					time zones around the	
					world.	
Knowledge					Understand the movement	
I					of the planets in relation to	
					the Sun.	
4					tile Juli.	

				Know the order of the	
				planets in our solar system.	
				Know what waxing, waning,	
				new and full mean in	
				relation to the Moon.	
				Understand what a lunar month is.	
				monums.	
				Know what an elliptical orbit	
				is.	
				Understand why we have	
				seasons.	
Vocabulary				Axis	
v ocabalal y				constellation	
				crescent	
				geocentric	
				gibbous	
				heliocentric	
				Jupiter	
				lunar	
				Mars	
				Neptune orbit	
				Phases of the Moon	
				Mercury	
				Planets	
				revolve,	
				rotate,	
				Rotation	
				Saturn	
				solar system Uranus	
				Venus	
				waning	
				waxing	
		Evolution	on and Inheritance		
Working					Identify things that are
Scientifically					inherited and things that are
					learned.
					<u> </u>
					Explore variation through
					dog breeds.
					Identify features that
					support survival in a given
					environment.

Skills	 	 	 	Compare the differences
SKIIIS				between environmental and
				inherited characteristics.
				Describe how animals are
				adapted to suit their environment in different
				ways.
				Find out about the
				evolutionary facts behind
				some traditional folk tales
				about features of some animals.
Knowledge				Know the difference
				between environmental and
				inherited characteristics
				W ha
				Know how animals and plants are adapted to suit
				their environment in
				different ways and that this
				adaptation can lead to
				evolution
				Understand that living things
				have changed over time
				nave enanged ever time
				Understand that fossils
				provide information about
				living things that inhabited the earth millions of years
				ago
				0-
				Recognise that living things
				produce offspring of the
				same kind, but normally
				offspring vary and are not identical to their parents
Vocabulary				Evolution
, i				Fossils
				Gene
				Genetics
				Homo sapiens Inherited
				Mutation
				natural selection
				offspring
				Survival of the Fittest