		Year	Group Science Subject Ove	erview		
Year 1	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Topic Name	Journeys and Exploration	Nature and Environment	Similarities and Differences	Nature and Environment	Friendship and Kindness	Imagination and Creativity
Trips and Experiences linked to Science	Science Museum Autumn Walk	Visit recycling centre	Visiting a farm to see baby animals	Visit recycling centre	Visiting community greenhouse Planting seeds	Summer walk – observe flowering plants
Area of learning	Seasonal changes – Autumn and Winter	Materials including floating and sinking	Animals, including humans – Name and compare animals	Animals, including humans – humans, babies and sense	Seasonal changes – Spring and Summer	Features of a flowering plant
Knowledge	Recognise signs of autumn and winter  Describe how trees change in autumn and winter  Know what month these seasons occur in  Suitable clothing for these seasons	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.	Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals.  Describe and compare the observable features of animals from a range of groups.  Name and identify animals that are herbivore, carnivore or omnivore.	Dis Name and locate parts of the human body and begin to make suggestions about what some parts of the body do.  Name the five senses and the part of the body they are related to. explain how they use each of their senses.  Recognise what babies need  Recognise what babies can /cannot do	Recognise signs of autumn and winter  Describe how trees change in summer and spring  Know what month these seasons occur in  Suitable clothing for these seasons	Describe some of the features of seeds and plants. They can begin to make comparisons of different plants and seeds.  Name and begin to describe the basic structure of a variety of common flowering plants.  Identify and name a variety of common wild and garden plants.  Identify and name a variety of deciduous , evergreen trees, and fruit and vegetable plants  Identify, name and describe the basic parts of a tree.
Skills	Identify scientific vocabulary  Use scientific vocabulary	perform simple tests  Use their observations to answer simple questions;	observe and identify animals in the world around them.	Make a prediction and suggest a reason;	perform simple tests  Use their observations toanswer simple questions;	Identify scientific vocabulary

	Observe and describe physical changes Interpret data Describe seasonal changes Describe seasonal behaviour in living things	Make a prediction and suggest a reason;  Suggest how a simple test could be made fair;  Sort objects 2/3 ways.	Careful observations of animals in the same group and can use simple features to compare animals.  Use their senses to carry out simple practical tests, using simple equipment.  Simple sorting diagrams to sort and classify objects (animals) into simple groups		Suggest how a simple test could be made fair;  Sort objects 2/3 ways.  Make careful observations, using equipment to help them  Close observations of plants and can compare and contrast their observations  Identify similarities and differences between plants and sort them both according to a given criteria.	Use scientific vocabulary  Observe and describe physical changes  Interpret data  Describe seasonal changes  Describe seasonal behaviour in living things  Name an event or occasion which happens in each season.  Describe how day length varies between two seasons.  Make a more detailed comparison between two seasons.
Vocabulary	.seasons Autumn Winter year month days temperature weather rainfall behaviour physical changes results deciduous evergreen	Hard soft. Stretchy  Stiff shiny dull bendy Waterproof Paper. Elastic Foil wood plastic Glass rubber smooth fabrics	Bird. Fish amphibians reptiles Mammals. Carnivore herbivore omnivore Feathers gills Bird, fish, amphibians, beak, scales, mammals, feathers fins, wings. Carnivore, herbivore, omnivore, meat, plants. Eyes,	umans smell taste see hear touch babies human body Head neck arm elbows knees face ears eyes mouth tongue nose teeth	seasons, spring summer, year, month, temperature, rain, sun, temperature hot warm flowers leaves change,	Flower. Root . leaf. petal Seeds bulbs . branch seeds trees. deciduous, evergreen, oak, holly,

Year 2	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Topic Name	Journeys and	Nature and	Similarities and	Nature and	Friendship and Kindness	Imagination and
	Exploration	Environment	Differences	Environment		Creativity
Trips and Experiences	Science Museum	Visit recycling centre	Visiting a farm to see	Visit recycling centre	Visiting community	Summer walk – observe
linked to Science	Autumn Walk		baby animals		greenhouse	flowering plants
					Planting seeds	
Area of learning	Seasonal changes –	Materials including	Animals, including	Animals, including	Seasonal changes –	Features of a flowering
	Autumn and Winter	floating and sinking	humans – Name and	humans – humans,	Spring and Summer	plant
			compare animals	babies and sense		
Knowledge	Recognise signs of	Distinguish between an	Identify and name a	Dis Name and locate	Recognise signs of	Describe some of the
	autumn and winter	object and the material	variety of common	parts of the human	autumn and winter	features of seeds and
		from which it is made	animals including fish,	body and begin to make		plants. They can begin
	Compare seasons		amphibians, reptiles,	suggestions about what	Describe how trees	to make comparisons of
	Danasila a la sociation de	Identify and name a	birds and mammals.	some parts of the body	change in summer and	different plants and
	Describe how trees	variety of everyday		do.	spring	seeds.
	change in autumn and winter	materials, including	Describe and compare		Know what month	
	winter	wood, plastic, glass,	the observable features	Name the five senses		Identify and name a
	Know what month	metal, water, and rock	of animals from a range	and the part of the	these seasons occur in	variety of common wild
	these seasons occur in		of groups.	body they are related	Suitable clothing for	and garden plants.
	these seasons occur in			to. explain how they use each of their	these seasons	
	Suitable clothing for	Describe the simple	Name and identify		these seasons	Identify and name a
	these seasons	physical properties of a	animals that are	senses.		variety of deciduous
	these seasons	variety of everyday	herbivore, carnivore or	Danassias valsat kaleisa		,evergreen trees, and
	Compare seasons	materials	omnivore.	Recognise what babies		fruit and vegetable
				need		plants
		Compare and group				
		together a variety of		Recognise what babies		Observe and describe
		everyday materials on		can /cannot do		how seeds and bulbs
		the basis of their simple physical properties.				grow into mature
		priysical properties.				plants.
						Cinal autonal desertit
						Find out and describe
						how plants need water,
						light and a Suitable
						temperature to grow
						and stay healthy

Skills	Identify scientific	perform simple tests	observe and identify	Make a prediction and	perform simple tests	
SVIIIS	vocabulary  Use scientific	Use their observations to answer simple	animals in the world around them.	suggest a reason;	Use their observations toanswer simple	Identify scientific vocabulary
	vocabulary	questions;	Careful observations of		questions;	Use scientific vocabulary
	Observe and describe physical changes	Make a prediction and suggest a reason;	animals in the same group and can use simple features to compare animals.		Suggest how a simple test could be made fair;	Observe and describe physical changes
	Interpret data	Suggest how a simple test could be made fair;	·		Sort objects 2/3 ways.	Interpret data
	Describe seasonal changes	Sort objects 2/3 ways.	Use their senses to carry out simple practical tests, using		Make careful observations, using	Describe seasonal
	Describe seasonal		simple equipment.		equipment to help them	changes
	behaviour in living things		Simple sorting diagrams to sort and classify objects (animals) into simple groups		Close observations of plants and can compare and contrast their observations	Describe seasonal behaviour in living things
					Identify similarities and differences between plants and sort them	Name an event or occasion which happens in each season.
					both according to a given criteria.	Describe how day length varies between two seasons.
						Make a more detailed comparison between two seasons.
Vocabulary	seasons Autumn Winter year month days temperature weather rainfall behaviour physical changes results deciduous evergreen	Wood plastic. Glass metal fabric. paper hard soft shiny. Dull rough. smooth bendy not bendy Wood, plastic, glass, rock, metal, pottery	Bird. Fish amphibians reptiles Mammals. Carnivore herbivore omnivore Feathers gills Bird, fish, amphibians, beak, scales, mammals, feathers	humans smell taste see hear touch babies human body Head neck arm elbows knees face ears eyes mouth tongue nose teeth Skeleton	seasons, spring summer, year, month, temperature, rain, sun, temperature hot warm flowers leaves change,	shoot. Seed bulb light. spread Warmth temperature. Water . growth Sprout. , mature plant, germination, flower bud, stem roots, vegetables, flowers

Voor 2	Automan 1	Autum 2	Spring 1	Spring 1	Currence 1	Summer 2
Year 3	Autumn 1	Autumn 2		Spring 1	Summer 1	Summer 2
Topic Name	Magic and Wonder	Dreams and Curiosity	Pride and Downfall	From Mystery to Discovery	Overcoming Adversity	Confidence and Caution
Trips and	Visit Science Museum	Visiting community	Science Museum		Visit Vauxhall Farm	Scientist Visitor
Experiences linked		greenhouse				
to Science		Planting seeds				
Area of learning	Rocks and Fossils	Plants	Forces and Magnets	Light	Animals Including Humans	Scientific Inventions
Knowledge	Compare and group	Identify and describe	Compare how things	Recognise that they	Identify that animal,	Think of something that we
	together different	the functions	move on different	need light in order to	including humans, need	need to be more efficient at
	kinds of rocks on the	of different parts of	surfaces	see things and that dark	the right types and amount	and create a machine for
	basis of their	flowering plants: roots,		is the absence of light	of nutrition, and that they	this.
	appearance and simple	stem/trunk, leaves and	Notice that some		cannot make their own	Carry out fair test
	physical properties	flowers	forces need contact	Notice that light is	food; they get nutrition	
			between two	reflected from surfaces	from what they eat	
	Describe in simple	Explore the	objects, but	<ul> <li>recognise that light</li> </ul>		
	terms how fossils are	requirements of plants	magnetic forces can	from the sun an be	Identify that humans and	
	formed when things	for life and growth (air,	act at a distance	dangerous and that	some other animals have	
	that have lived are	light, water, nutrients		there are ways to	skeletons and muscles for	
	trapped within rock	from soil, and room to	Observe how	protect their eyes	support, protection and	
		grow) and how they	magnets attract or	•recognise that	movement.	
	Recognise that soils are	vary from plant to plant	repel each other and	shadows are formed		
	made from rocks and		attract some			
	organic matter.	Investigate the way in	materials and not	when the light from a		
		which water is	others	light source is blocked		
		transported within		by a solid object •find		
		plants	Compare and group	patterns in the way that		
			together a variety of	the size of shadows		
		Explore the part that	everyday materials	changes.		
		flowers play in the life	on the basis of			
		cycle of flowering	whether they are			
		plants, including	attracted to a			
		pollination, seed	magnet,			
		formation and seed				
		dispersal.	Describe magnets as			
			having two poles			
			predict whether two			
			magnets will attract			
			or repel each other,			
			depending on which			
			poles are facing.			

Skills	Asking relevant questions and using different types of scientific enquiries to answer them.  Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers  Recording findings using simple scientific language, drawings,	making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers  Asking relevant questions and using different types of scientific enquiries to answer them .	Setting up simple practical enquiries, comparative and fair tests  Recording findings using simple scientific language, drawings  Using their observations and ideas to suggest answers to questions	Setting up simple practical enquiries, comparative and fair tests  Recording findings using simple scientific language, drawings	Asking relevant questions and using different types of scientific enquiries to answer them .  Using their observations and ideas to suggest answers to questions	Asking relevant questions and using different types of scientific enquiries to answer them
Vocabulary	Rock fossil. State. permeable non-permeable sedimentary mineral soil granite metamorphic. React, waterproof, heavy, hard, rocks, limestone, chalk, graphite, metamorphic, basalt, sandstone, flint, igneous, permeable, impermeable, sedimentary, slate	fertilization pollen. Transportation, absorbs, evaporates. Germination, flowering, pollination, growing, fertilisation, seed formation,	magnets attract repel north and south pole. Twist magnetic magnetic field push pull. Friction Push, pull, friction, distance, height, travel, fair test	dark dull bright reflection light source transparent translucent opaque shadow. Block Reflect, emit, light source, angle of incidence, angle of reflection, illuminate, night vision, sight, bioluminescence, near-sighted, retina. Suncream, protection, sun, light source, sunglasses,	Nutrients, fats, carbohydrates, vitamins, minerals Skeleton, endoskeleton, exo-skeleton, vertebrae, benefit, constraints nutrition. diet Vitamins mineral fats proteins Carbohydrates skeleton protect. support	Enquiry, inventor, scientist, invention, secondary research

		Year	Group Science Subject Ove	rview		
Year 4	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Topic Name	Freedom and Captivity	Invention and Innovation	Darkness and Light	Taking Courage	Exploration and Discovery	Fantasy Worlds
Trips and Experiences linked to Science		Visit Science Museum		Invite a medical professional into school	Visit Nature Garden	Scientist Visitor
Area of learning	States of Matter	Sound	Electricity	Animals Including Humans	Living Things & Their habitats	Scientist and Inventors
Knowledge	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.	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.	Identify common appliances that run on electricity;  Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers.  Identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery.  Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit; Recognise some common conductors and	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.	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.	Recognise some famous inventions and inventors.  Investigate and describe the dangers of deforestation in Madagascar with some support  Sort facts about the scientists who discovered oxygen and explain the effect of oxygen on burning  Discuss the achievements of Garrett Morgan and build some traffic lights using a simple series circuit

			insulators, and associate metals with being good conductors			
Skills	Identifying differences, similarities or changes related to simple scientific ideas and processes. Using straightforward scientific evidence to answer questions or to support their findings.	Asking relevant questions and using different types of scientific enquiries to answer them .  Using their observations and ideas to suggest answers to questions	Using their observations and ideas to suggest answers to questions  Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.	Asking relevant questions and using different types of scientific enquiries to answer them .  Using their observations and ideas to suggest answers to questions	Using their observations and ideas to suggest answers to questions.  Asking relevant questions and using different types of scientific enquiries to answer them .	Using their observations and ideas to suggest answers to questions
Vocabulary	solid liquid gas. Evaporate condense heat Cool melt. solidify particle temperature	Vibrations source. Pitch sound low (lower, lowest) high (higher, highest) bang shake vibrate pluck	Circuit. Conductor insulator. Buzzer bulb Switch wire. Light sound. Heat. Cell	oesophagus stomach acid small intestine Incisors. Canines premolars. Molars producer Consumer. pancreas, mouth, anus, large intestine, small intestine, oesophagus, stomach	habitat. micro habitat. pond Meadow. Organism trees wildflowers garden plants. pollution, invasive species Invertebrates roots. Vertebrates Birds, insects, fish, mammals, reptiles, amphibians. Human, natural, impact, habitats, fragile, environments, deforestation, urbanisation,	conservationist endangered species solar powered respiration  oxygen scientist inventions

		Year	Group Science Subject Ove	rview		
Year 5	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Topic Name	Freedom and Captivity	Invention and Innovation	Darkness and Light	Taking Courage	Exploration and Discovery	Fantasy Worlds
Trips and Experiences linked to Science		Visit Science Museum		Invite a medical professional into school	Visit Nature Garden	Scientist Visitor
Area of learning	States of Matter	Sound	Electricity	Animals Including Humans	Living Things & Their habitats	Scientist and Inventors
Knowledge	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 and describe the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.  Justify choice of materials to make certain objects	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.	Identify common appliances that run on electricity;  Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers.  Identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery.  Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit;	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.	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.	Recognise some famous inventions and inventors. Investigate and describe the dangers of deforestation in Madagascar with some support  Sort facts about the scientists who discovered oxygen and explain the effect of oxygen on burning  Discuss the achievements of Garrett Morgan and build some traffic lights using a simple series circuits.

Skills	Identifying	Asking relevant	Recognise some common conductors and insulators, and associate metals with being good conductors  Using their observations	Asking relevant	Using their observations	Using their observations
JKIII3	differences, similarities or changes related to simple scientific ideas and processes. Using straightforward scientific evidence to answer questions or to support their findings.	questions and using different types of scientific enquiries to answer them .  Using their observations and ideas to suggest answers to questions	and ideas to suggest answers to questions  Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.	questions and using different types of scientific enquiries to answer them .  Using their observations and ideas to suggest answers to questions	and ideas to suggest answers to questions.  Asking relevant questions and using different types of scientific enquiries to answer them .	and ideas to suggest answers to questions
Vocabulary	solid liquid gas. evaporate condense heat Cool melt. solidify particle temperature	Vibrations source. Pitch sound low (lower, lowest) high (higher, highest) bang shake vibrate pluck	Circuit. Conductor insulator. Buzzer bulb Switch wire. Light sound. Heat. Cell	oesophagus stomach acid small intestine Incisors. Canines premolars. Molars producer Consumer. pancreas, mouth, anus, large intestine, small intestine, oesophagus, stomach	habitat. micro habitat. pond Meadow. Organism trees wildflowers garden plants. pollution, invasive species Invertebrates roots. Vertebrates Birds, insects, fish, mammals, reptiles, amphibians. Human, natural, impact, habitats, fragile, environments, deforestation, urbanisation,	conservationist endangered species solar powered respiration  oxygen scientist inventions

Year 6	Autumn 1	Autumn 2	Spring 1	Spring 2 and Summer 1	Summer 2
Topic Name	Evolution and Inheritance	Battles and Brawls	Migration and Movement	Utopia vs. Dystopia	Crossing Borders
Trips and Experiences linked to Science	Invite a family in with up to 3 generations	Nature Garden	Science Museum	Light Investigations	Science Museum
Area of learning	Evolution & Inheritance	Living Things & their Habitats	Animals Including Humans	Light	Electricity
Knowledge	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.	Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including microorganisms, plants and animals  Give reasons for classifying plants and animals based on specific characteristics.	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.	Recognise that light appears to travel in straight lines.  Use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye.  Explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes.  Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them	Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit  Compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches  Use recognised symbols when representing a simple circuit in a diagram
Skills	With growing independence, raise their own relevant questions about the world around them in response to a range of scientific experiences;  Make careful and focused observations	Identify scientific vocabulary  Use scientific vocabulary  Make careful and focused observations;  Interpret data  Independently group, classify and describe	Make careful and focused observations;  Use relevant scientific language and illustrations to discuss, communicate and justify their scientificideas;	Raising different kinds of scientific questions  Plan , set up and carry out comparative and fair test to answer questions .	With growing independence, raise their own relevant questions about the world around them in response to a range of scientific experiences;  Raising different kinds of scientific questions

		living things and materials;			Plan , set up and carry out comparative and fair test to answer questions .
Vocabulary	Darwin, evolution, theory, adapt, environment, sediment, fossil Microorganism, fungus, bacteria, virus, microscopic, mould. Darwin, theory, Galapagos islands, finches, beaks, evolve, ancestors, adapted, diversified, hypothesis, evidence	Carl Linnaeus, classify, similarities, differences, features, characteristics, mammals, reptiles, birds, fish, amphibians Microorganism, fungus, bacteria, virus,microscopic, mould. Vertebrates, invertebrates, reptiles, mammals, birds, amphibians, warm blooded, cold blooded, backbone, insects, crustacean, annelids, arachnids	Septum, ventricles, systolic phase, membrane, , heartbeat, hollow muscle, chest Blood vessels, arteries, capillaries, veins, nutrients, water, Bronchus, trachea, bronchiole, diaphragm, circulatory arteries, veins, heart, lungs	Light source, reflectors, light waves, periscopes, reflective surface Shadow, light, blocked, opaque, shape, translucent, size, distance, source, change, tilt Transparent, opaque, translucent, shadows, light, variables, fair test	voltage brightness volume switches danger series circuit electrical safety sign circuit diagram switch bulb buzzer motor recognised symbols