Science	AUTUMN SPRING		NG	SUMMER		Key Objectives:	Key Vocabulary:	
Year	1	2	1	2	1	2		
3							Working Scientifically (Y3 and Y4): <ul> <li>I can ask relevant scientific questions</li> <li>I can use observations and knowledge to answer scientific questions</li> <li>I can set up a simple enquiry to explore a scientific question</li> <li>I can set up a test to compare two things</li> <li>I can set up a fair test and explain why it is fair</li> <li>I can use equipment, including thermometers and data loggers to make measurements</li> <li>I can use diagram keys, bar charts and tables using scientific language</li> <li>I can use findings to report in different ways, including oral and written explanations, presentation</li> <li>I can make a prediction with a reason</li> <li>I can identify differences, similarities and changes related to enquiry</li> </ul>	
		Animals incuding humans	Parts of a plant	What a plant needs			<ul> <li>I can describe the function of different parts of flowing plants and trees</li> <li>I can explore and describe the needs of different plants for survival</li> <li>I can explain and describe how water is transported in plants</li> <li>I can describe the plant life cycle, especially the importance of flowers</li> </ul> <u>Animals, including humans:</u> <ul> <li>I can explain the importance of a nutritious, balanced diet</li> <li>I can explain how nutrients, water and oxygen are transported within animals and humans</li> </ul>	

		Rocks and soils including fossils	Light and Shadows	<ul> <li>I can describe and explain the skeletal system of a human</li> <li>I can describe and explain the muscular system of a human</li> <li>I can describe the purpose of a skeleton in humans and animals</li> <li>Chemistry         <u>Rocks:</u> <ul> <li>I can compare and group rocks based on their appearance and physical properties, giving a reason</li> <li>I can describe how fossils are formed</li> <li>I can describe how soil is made</li> <li>I can describe and explain the difference between sedimentary and igneous rock</li> </ul> </li> <li>Physics         <ul> <li>I can explain that light is needed in order to see</li> <li>I can explain that light is reflected from a surface</li> <li>I can explain and demonstrate how a shadow is formed</li> <li>I can explain the danger of direct sunlight and describe how to keep protected</li> </ul> </li> </ul>
Magnets and Forces				<ul> <li>Forces and magnet: <ul> <li>I can explore and describe how objects move on different surfaces</li> <li>I can explain how some forces require contact and some do not, giving examples</li> <li>I can explore and explain how objects attract and repel in relation to objects and other magnets</li> <li>I can predict whether objects will be magnetic and carry out on enquiry to test this out</li> <li>I can describe how magnets work</li> <li>I can predict whether magnets will attract or repel and give a reason</li> </ul> </li> </ul>

4					Working Scientifically (Y3 and Y4):
					• I can ask relevant scientific questions
					• I can use observations and knowledge to answer
					scientific questions
					<ul> <li>I can set up a simple enquiry to explore a scientific</li> </ul>
					auestion
					T can get up a tagt to compare two things
					• I can set up a fein test and explain why it is fein
					• I can set up a fair test and explain why it is fair.
					• I can make careful and accurate observations,
					including the use of standard units
					• I can use equipment, including thermometers and
					data loggers to make measurements
					<ul> <li>I can gather, record. Classify and present data in</li> </ul>
					different ways to answer scientific questions
					<ul> <li>I can use diagram keys, bar charts and tables using</li> </ul>
					scientific language
					<ul> <li>I can use findings to report in different ways,</li> </ul>
					including oral and written explanations,
					presentation
					<ul> <li>I can draw conclusions and suggest improvements</li> </ul>
					• I can make a prediction with a reason
					<ul> <li>I can identify differences, similarities and changes</li> </ul>
					related to enquiry
Dar	inders to				
Livi	vina thinas	Classifvina			Biology
		Livina Thinas			Living things and their habitats:
		ennig minge			• I can aroun living things in different ways
					<ul> <li>I can use classification keys to aroup identify and</li> </ul>
					name living things
					<ul> <li>T can create classification keys to aroun identify</li> </ul>
					and name living things (for others to use)
					<ul> <li>T can describe how changes to an environment could</li> </ul>
					endanger living things
					Animale including humans:
					T can identify and name parts of the human
			Liuman		diagative avatam
			Nutrition		<ul> <li>T can describe the functions of the oneans in the</li> </ul>
			Nutrition		• I can describe the junctions of the organs in the
					nuniuri uigestive system T an idantifu and daganiba the different tures of
					• I can identify and describe the different types of
					Teen use food design to identify the large
					• I can use food chains to identity producers,
					predators and prey
					• I can construct food chains to identify producer,
					predators and prey.

	Changes of State			<ul> <li><u>Chemistry</u> <u>States of matter:</u> <ul> <li>I can group materials based on their state of matter (solids, liquids, gas)</li> <li>I can describe how some materials can change state</li> <li>I can explore how materials change state</li> <li>I can measure the temperature at which materials change state</li> <li>I can describe the water cycle</li> <li>I can explain the part played by evaporation and condensation in the water cycle</li> </ul> </li> </ul>	
			Sound	Physics Sound:         • I can describe how sound is made         • I can explain how sound travels from a source to our ears         • I can explain the place of vibration in hearing         • I can explore the correlation between pitch and the object producing a sound         • I can explore the correlation between the volume of a sound and the strength of the vibrations that produced it         • I can describe what happens to a sound as it travels away from is source	
		Electricity		<ul> <li>Electricity:</li> <li>I can identify and name appliances that require electricity to function</li> <li>I can construct a series circuit</li> <li>I can identify and name the components in a series circuit (including wires, cells, bulbs, switches and buzzers)</li> <li>I can draw a circuit diagram</li> <li>I can predict and test whether a lamp will light within a circuit</li> <li>I can describe the function of a switch in a circuit</li> <li>I can describe the difference between a conductor and insulators; giving examples of each</li> </ul>	

Б				Warking Esigntifically (VE and VE)	
5				working Scientifically (95 and 96).	
				• I can plan different types of scientific enquiry	
				<ul> <li>I can control variables in an enquiry</li> </ul>	
				<ul> <li>I can measure accurately and precisely using a</li> </ul>	
				range of equipment	
				<ul> <li>I can record data and results using scientific</li> </ul>	
				diagrams and labels, classification keys, tables,	
				scatter graphs bar and line graphs	
				T can use the outcome of test results to make	
				• I can use the ourcome of rest results to make	
				predictions and set further comparative fair test	
				<ul> <li>I can report findings from enquiries in range of</li> </ul>	
				ways	
				<ul> <li>I can explain the conclusion from an enquiry</li> </ul>	
				<ul> <li>I can explain causal relationships in an enquiry</li> </ul>	
				• I can relate the outcome from an enquiry to	
				scientific knowledge in order to state whether	
				evidence supports of refutes an argument or	
				theory	
				- Deed anoll and anoll accentific yearshylery	
				• Read, spell and spell scientific vocabulary	
				accurately	
				BIOLOGY	
				Living things and their habitats:	
			Life Cycles	<ul> <li>I can describe the life cycles of different living</li> </ul>	
				things, e.g. mammal, amphibian, insect, bird	
				<ul> <li>I can describe the differences between different</li> </ul>	
				life cycles	
				• I can describe the process of preproduction in	
				nlants	
				T can describe the process of reproduction in	
				• I can describe the process of reproduction in	
				animais	
				Animala including humana:	
				Animais, including numaris:	
				• I can create a timeline to indicate stages of growth	
				in humans	
	N de terrie la	Turnen of the set		<u>Cnemistry</u>	
	iviateriais	iypes of change		rroperties t changes of materials:	
				• 1 can compare and group materials based on their	
				properties (e.g. hardness, solubility, transparency,	
				conductivity, (electrical and thermal), and response	
				to magnets)	
				• I can describe how materials dissolve to form a	
				solution; explaining the process of dissolving	

Earth & Space	Forces					<ul> <li>I can describe and show how to recover a substance from a solution</li> <li>I can describe how some materials can be separated</li> <li>I can demonstrate how materials can be separated (e.g. filtering, sieving and evaporating)</li> <li>I know and can demonstrate that some changes are reversible and some are not</li> <li>I can explain how some changes result in the formation of a new material and that is usually irreversible</li> <li>I can discuss reversible and irreversible changes</li> <li>I can discuss reversible and irreversible changes</li> <li>I can give evidenced reasons why materials should be used for specific purposes</li> </ul> Physics Earth and space: <ul> <li>I can describe and explain the movement of the Earth and other planets relative to the sun</li> <li>I can addemonstrate how night and day are created</li> <li>I can describe the sun, Earth and moon (using the term spherical)</li> </ul> Forces: <ul> <li>I can identify and explain the effect of air resistance</li> <li>I can identify and explain the effect of water resistance</li> </ul>
	Forces					<ul> <li>lives</li> <li>I can identify and explain the effect of air resistance</li> <li>I can identify and explain the effect of water resistance</li> <li>I can identify and explain the effect of friction</li> <li>I can explain how levels, pulleys and gears allow a smaller force have a greater effect</li> </ul>
	Earth & Space	Earth & Space Forces	Earth & Space	Earth & Space	Earth & Space	Earth & Space

Our Bodies       Classifying Living         Our Bodies       Classifying Living	6				Working Scientifically (Y5 and Y6):
Our Badies <ul> <li>I can control variables in an enquiry</li> <li>I can control variables in an enquiry</li> <li>I can encort data and results using acientific diagrams and labels, classification Rey, tables, scatter graphs, ban and line graphs</li> <li>I can specific data and results using acientific diagrams and labels, classification Rey, tables, scatter graphs, ban and line graphs</li> <li>I can specific data and results using acientific diagrams and labels, classification Rey, tables, scatter graphs, ban and line graphs</li> <li>I can specific findings from enquirys fair test</li> <li>I can explain fundings from enquiry</li> <li>I can explain casual relationships in an enquiry</li> <li>I can explain the outcome from an enquiry to scientific knowledge in order to state whether evidence supports of refutes an argument or theory</li> <li>Read, spell and spell scientific knowledge in order to state whether evidence supports of refutes an argument or theory</li> <li>I can classify living things into broad groups according to observable characteristics and based on similarities and differences</li> <li>I can describe how living things have been classifying living</li> <li>I can describe how living things have been classifying plants and animals in a specific way</li> </ul> <li>Our Badies</li>					I can plan different types of scientific enquiry
Our Bodies <ul> <li>I can measure accurately and precisely using a results using scientific diagrams and ubles, classification keys, tables, sissification keys</li></ul>					I can control variables in an enquiry
Our Bodies       Our Bodies         Our Bodies       Our Bodies					I can measure accurately and precisely using a
Our Bodies <ul> <li> <ul></ul></li></ul>					range of equipment
Our Bodies       Classifying Living         Our Bodies       Our Bodies					• I can record data and results using scientific
Our Bodies <ul> <li> <ul></ul></li></ul>					diagrams and labels, classification keys, tables,
Our Bodies       Our Bodies <ul> <li>I can use the duration of the results of make predictions and set further comparative fair test             <ul></ul></li></ul>					scatter graphs, bar and line graphs
Our Bodies       Our Bodies         Our Bodies       Our Bodies					• I can use the outcome of test results to make
Our Bodies       Our Bodies         Our Bodies       Our Bodies					T can report finding from anguining in range of
Our Bodies       Our Bodies <ul> <li>I can explain the conclusion from an enquiry</li> <li>I can classify living things into broad groups according to observable characteristics and based on similarities and differences</li> <li>I can describe how living things have been classified</li> <li>I can describe how living things have been classified</li> <li>I can describe the work of classifying plants and animals in a specific way</li> </ul>					• I can report ( maings ) on enquines in range of
Our Bodies       Our Bodies <ul> <li>I can explain acaul relationships in an enquiry</li> <li>I can explain acaul relationships in an enquiry</li> <li>I can explain casul relationships in a specific way</li> </ul>					<ul> <li>T can explain the conclusion from an enquiry</li> </ul>
Our Bodies       Our Bodies <ul> <li>I can relate the outcome from an enquiry to scientific knowledge in order to state whether evidence supports of refutes an argument or theory</li> <li>Read, spell and spell scientific vocabulary accurately</li> <li>Biology</li> <li>Living things and their habitats:                 <ul> <li>I can classify living things into broad groups according to observable characteristics and based on similarities and differences</li> <li>I can describe how living things have been classified</li> <li>I can describe how living things have been classified</li> <li>I can describe how living things have been classified</li> <li>I can describe how living things have been classified</li> <li>I can describe the main parts of the human circulatory system</li> <li>I can describe the function of the heart, blood</li> </ul> </li> </ul>					<ul> <li>T can explain casual relationships in an enquiry</li> </ul>
Our Bodies       Our Bodies       Scientific knowledge in order to state whether evidence supports of refutes an argument or the heart, blood         Scientific knowledge in order to state whether evidence supports of refutes an argument or thereory       Read, spell and spell scientific vocabulary accurately         Biology       Living things and their habitats:       I can classify living things into broad groups according to observable characteristics and based on similarities and differences       I can describe how living things have been classifying lants and animals in a specific way					• I can relate the outcome from an enquiry to
Our Bodies       Our Bodies       Our Bodies       Image: Classify in the set of the					scientific knowledge in order to state whether
Our Bodies       Our Bodies       Image: Classifying Living Things					evidence supports of refutes an argument or
Our Bodies       Our Bodies <ul> <li>Our Bodies</li> <li>Our Bodies</li> <li>Our Bodies</li> <li>Our Bodies</li> </ul> <ul> <li>Image: Section 10 and 10 and</li></ul>					theory
Our Bodies       Our Bodies       Classifying Living       Image: Classify living Living Living Things       Image: Classify living Living Living Things       Image: Classify living Living Living Living Things       Image: Classify living Living Living Things       Image: Classify living Living Living Living Things       Image: Classify living Living Living Living Living Living Things       Image: Classify living Livin					<ul> <li>Read, spell and spell scientific vocabulary</li> </ul>
Our Bodies       Our Bodies       Our Bodies       Biology         Biology       Living things and their habitats:       • I can classify living things into broad groups according to observable characteristics and based on similarities and differences         Our Bodies       • I can describe how living things have been classified         • I can identify and name the main parts of the human circulatory system         • I can identify and name the main parts of the human circulatory system					accurately
Our Bodies       Our Bodies       Classifying Living       Image: Classifying Living					Disland
Our Bodies       Our Bodies       Classify ing Living         Our Bodies       Image and the main parts of the heart, blood					Biology
Our Bodies       Our Bodies         Our Bodies       I can describe the main parts of the human circulatory system					T can classify living things into broad groups
Our Bodies       Classifying Living         Our Bodies       Classifying Living					according to observable characteristics and based
Our Bodies <ul> <li>I can describe how living things have been classified</li> <li>I can give reasons for classifying plants and animals in a specific way</li> </ul> Our Bodies <ul> <li>I can identify and name the main parts of the human circulatory system</li> <li>I can describe the function of the heart, blood</li> </ul>			Classifving Living		on similarities and differences
Our Bodies       I can give reasons for classifying plants and animals in a specific way         Our Bodies       I can identify and name the main parts of the human circulatory system         I can describe the function of the heart, blood			Things		<ul> <li>I can describe how living things have been</li> </ul>
Our Bodies <ul> <li>I can give reasons for classifying plants and animals in a specific way</li> <li>Animals, including humans:                 <ul> <li>I can identify and name the main parts of the human circulatory system</li> <li>I can describe the function of the heart, blood</li> </ul> </li> </ul>			5		classified
Our Bodies Our Bodies I can identify and name the main parts of the human circulatory system I can describe the function of the heart, blood					<ul> <li>I can give reasons for classifying plants and animals</li> </ul>
Our Bodies       Animals, including humans:         • I can identify and name the main parts of the human circulatory system         • I can describe the function of the heart, blood					in a specific way
Our Bodies       • I can identify and name the main parts of the human circulatory system         • I can describe the function of the heart, blood					Animale including humane:
• I can describe the function of the heart, blood	Our Br	dies			• I can identify and name the main parts of the
I can describe the function of the heart, blood					human circulatory system
					• I can describe the function of the heart, blood
vessels and blood					vessels and blood
I can discuss the impact of diet, exercise, drugs					• I can discuss the impact of diet, exercise, drugs
and life style on health					and life style on health
I can describe the ways in which nutrients and					• I can describe the ways in which nutrients and
water are transported in animals, including humans					water are transported in animals, including humans
					•
Evolution and inheritance:					Evolution and inhanitance:

		Evolution on	d . T can decembe how the centh and living things have
			• I can describe now the earth and trying things have
		Inneritance	changes over time
			<ul> <li>I can explain how fossils can be used to find out</li> </ul>
			about the past
			<ul> <li>I can explain about reproduction and offspring</li> </ul>
			(recognising that offspring normally vary and are
			not identical to their parents)
			<ul> <li>T can explain how animals and plants are adapted to</li> </ul>
			• I can explain now animals and plants are adapted to
Light and Sight			I can link adaptation over time to evolution
			<ul> <li>I can explain evolution</li> </ul>
			<u>Physics</u>
			Light:
			<ul> <li>I can explain how light travels</li> </ul>
			• I can explain and demonstrate how we see objects
			<ul> <li>I can explain why shadows have the same shape as</li> </ul>
			the shipet that costs them
			• I can explain now simple optical instruments work,
			e.g. periscope, telescope, binoculars, mirror,
			magnifying glass etc.
	Electricity		
			Electricity:
			• I can explain how the number & voltage of cells in a
			circuit links to the brightness of a lamp or the
			volume of a buzzer
			T can compare and give reasons for why components
			• I can compare and give reasons for why components
			WORK and do not work in a circuit
			I can draw circuit diagrams using correct symbols