Science

St Anthony's Catholic Primary School

Long Term Planning						
EYFS	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
EYFS Science almanac – long term inquiry: observation and recording of weather & photographs of school oak tree.	Starting School and All About Me	Traditional Tales and Christmas	People Who Help Us	Into The Forest	Animals/Farm animals	Minibeasts

Through continuous provision Children in Reception will: CL – learn new vocabulary and use in different contexts. Ask questions to find out more and check what has been said to them. Articulate their ideas in well formed sentences. Describe events in some detail. Use talk to work out problems and organise thinking. Explain how things work and why they might happen. PD – know and talk about general factors that support overall health and wellbeing	KUW – explore the natural world around them. Describe what they see, hear and feel while outside. Recognise environments that are different to the ones they live. Understand the effect of the changing seasons on the natural world around them. Continuous provision areas and activities that support learning and skill development that relate to science are: Indoors - Nature table, home corner, cooking, investigation table, art table, book corner, topic tables, story time Outdoors – nature area, forest school, flower bed, school garden, mud kitchen, construction, music centre

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 1 St Anthony's is adopting an approach where **Seasonal change** is developed over a year with teachers timetabling regular visits into the school grounds or local park, e.g. fortnightly for an hour. During each visit, the children record seasonal changes, e.g. photograph each visit.	Animals including humans – Human body (Who Am I?) Content: Name human body parts. Draw and label basic parts of the human body. Associate body parts with the senses. Use senses to compare texture, sound, smells Questioning Asking simple questions and being able to express them Sorting Sorting and grouping Using a large venn diagram(practically) Assessing Reading and spelling simple scientific terms Recording Gathering and recording information from observations and tests e.g. tally charts Observing Observing using simple equipment, noticing patterns and relationships Communicating Discussing what has been observed and recorded	Animals including Humans, Plants, Everyday materials and **Seasonal Change 1 (Celebrations)** Content: what things are made of everyday materials we use and what they are like how to group materials The basic structure of common flowering plants. Associate body parts with the senses. Use senses to compare texture, sound, smells Seasons 1: Content: a) changes associated with autumn and winter b)Weather and day length. Questioning Asking simple questions and being able to express them Sorting Sorting and grouping Using a large Venn diagram(practically) Assessing Reading and spelling simple scientific terms Recording	Everyday Materials and Animals including Humans (Polar Places) Everyday materials Content: what things are made of everyday materials we use and what they are like how to group materials Animals including humans - animals Content: names of some common animals including fish, amphibians, reptiles and mammals. Name body parts of animals. What animals eat, whether they are carnivores, herbivores or omnivores. Questioning Asking simple questions and being able to express them Sorting Sorting and grouping Using a large Venn diagram(practically) Assessing	Animals including Humans and **Seasonal Change 2 (on Safari)** Animals: Draw and label basic parts of an animal Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets). Seasons 2 Content: a)changes associated with winter and Spring b)Weather and day length. Questioning Asking simple questions and being able to express them Sorting Sorting and grouping Using a large Venn diagram(practically) Assessing Reading and spelling simple scientific terms Recording Gathering and recording information from observations and tests e.g. tally charts Observing Observing using simple equipment, noticing	Animals including Humans and Plants and **Seasonal Change 3 (Plants and Where we Live)** Plants Content: the names of plants around us; common wild and garden plants, including deciduous and evergreen trees. The basic structure of common flowering plants including trees. Animals including humans - animals Content: names of some common animals including birds. Name body parts of birds. What animals eat, whether they are carnivores, herbivores or omnivores. Content: changes associated with spring and summer. Weather and day length. Questioning	Everyday Materials, Animals including Humans(Holidays) Everyday materials Content: what things are made of everyday materials we use and what they are like how to group materials Animals: Draw and label basic parts of an animal Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets). Questioning Asking simple questions and being able to express them Sorting Sorting and grouping Using a large Venn diagram(practically) Assessing Reading and spelling simple scientific terms Recording Gathering and recording information from

	Researching Finding out about scientific ideas Measuring Estimating and measuring using simple equipment	Gathering and recording information from observations and tests e.g. tally charts Observing Observing using simple equipment, noticing patterns and relationships Communicating Discussing what has been observed and recorded Testing Performing simple tests to find answers to questions Researching Finding out about scientific ideas Measuring Estimating and measuring using simple equipment	Reading and spelling simple scientific terms Recording Gathering and recording information from observations and tests e.g. tally charts Observing Observing using simple equipment, noticing patterns and relationships Communicating Discussing what has been observed and recorded Testing Performing simple tests to find answers to questions Researching Finding out about scientific ideas	patterns and relationships Communicating Discussing what has been observed and recorded Testing Performing simple tests to find answers to questions Researching Finding out about scientific ideas Measuring Estimating and measuring using simple equipment	Asking simple questions and being able to express them Sorting Sorting and grouping Using a large venn diagram(practically) Assessing Reading and spelling simple scientific terms Recording Gathering and recording information from observations and tests e.g. tally charts Observing Observing using simple equipment, noticing patterns and relationships Communicating Discussing what has been observed and recorded Testing Performing simple tests to find answers to questions Researching Finding out about scientific ideas Measuring Estimating and measuring using simple equipment	observations and tests e.g. tally charts Observing Observing using simple equipment, noticing patterns and relationships Communicating Discussing what has been observed and recorded Testing Performing simple tests to find answers to questions Researching Finding out about scientific ideas Measuring Estimating and measuring using simple equipment

Year 2	Autumn 1	*Autumn 2*	Spring 1	Spring 2	Summer 1	*Summer 2*
Year 2 In the Spring, the half terms are short so two half terms are sufficient time for the teacher to cover this unit	Animals including humans, Everyday Materials (Healthy Me) Content: Animals have basic needs. The basic needs of animals and humans for survival. The importance of exercise, different foods and hygiene Content: Identify and compare the suitability of everyday materials for particular uses Questioning Asking simple questions and being able to express them Sorting Sorting and grouping Using a venn diagram Assessing Reading and spelling simple scientific terms Recording	Uses of everyday materials (Materials Monsters) Content: Identify and compare the suitability of everyday materials for particular uses. Content: How the objects made from some materials can changed by squashing, bending, twisting and stretching. Questioning Asking simple questions and being able to express them Sorting Sorting and grouping Using a venn diagram Assessing Reading and spelling simple scientific terms Recording Gathering and recording information from observations and tests e.g. tally charts Observing	Uses of everyday materials (Squash ,Squeeze and Twist) Content: How the objects made from some materials can changed by squashing, bending, twisting and stretching. Questioning Asking simple questions and being able to express them Sorting Sorting and grouping Using a venn diagram Assessing Reading and spelling simple scientific terms Recording Gathering and recording information from observations and tests e.g. tally charts Observing Observing using simple equipment, noticing patterns and relationships	*Plants Young Gardeners* *Content: what plants grow from; how seeds and bulbs grow into mature plants How plants need water, light, suitable temperature to grow and stay healthy* Questioning Asking simple questions and being able to express them Assessing Reading and spelling simple scientific terms Recording Gathering and recording information from observations and tests e.g. tally charts Observing Observing using simple equipment, noticing patterns and relationships Communicating Discussing what has been observed and recorded	Living Things and their Habitat (Our Environment) Content: Identify that most things live in habitats to which they are suited and describe how different habitats provide for basic needs. Identify and name variety of plants and animals in their habitats including micro habitats. Compare habitats Questioning Asking simple questions and being able to express them Sorting Sorting and grouping Using a venn diagram Assessing Reading and spelling simple scientific terms Recording Gathering and recording information from	Animals including humans, Everyday materials (Little Masterchef) Content: Animals have basic needs. The basic needs of animals and humans for survival. The importance of exercise, different foods and hygiene Questioning Asking simple questions and being able to express them Sorting Sorting and grouping Using a Venn diagram Assessing Reading and spelling simple scientific terms Recording Gathering and recording information from observations and tests e.g. tally charts Observing Observing using simple equipment, noticing

	Gathering and recording information from observations and tests e.g. tally charts Observing Observing using simple equipment, noticing patterns and relationships Communicating Discussing what has been observed and recorded Testing Performing simple tests to find answers to questions Researching Finding out about scientific ideas Measuring Estimating and measuring using simple equipment	Observing using simple equipment, noticing patterns and relationships Communicating Discussing what has been observed and recorded Testing Performing simple tests to find answers to questions Researching Finding out about scientific ideas	Communicating Discussing what has been observed and recorded Testing Performing simple tests to find answers to questions Researching Finding out about scientific ideas	Testing Performing simple tests to find answers to questions Researching Finding out about scientific ideas Measuring Estimating and measuring using simple equipment	observations and tests e.g. tally charts Observing Observing using simple equipment, noticing patterns and relationships Communicating Discussing what has been observed and recorded Testing Performing simple tests to find answers to questions Researching Finding out about scientific ideas Measuring Estimating and measuring using simple equipment	patterns and relationships Communicating Discussing what has been observed and recorded Testing Performing simple tests to find answers to questions Researching Finding out about scientific ideas Measuring Estimating and measuring using simple equipment

Year 3	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 3 Light Teacher to address how shadows are formed and why shadows varies in size in the Summer Term as well as any gaps in the children's learning.	Animals including humans - skeletons and Nutrition (Food and Our Bodies) Content: Humans and some animals have skeletons and muscles. How skeletons and muscles provide support, protection and movement. Animals including humans cannot make their own food. Animals and humans need the right amount of nutrition. Nutrition comes from what is eaten. Skills: Questioning Asking relevant questions and suggesting where and how answers may be found Sorting Identifying, comparing, classifying and grouping Assessing	Light (Light and Shadow) Light Content: Recognise we need light to see things, dark is the absence of light. How light can be reflected. The dangers that bright light can cause How shadows are formed Sorting Identifying, comparing, classifying and grouping Assessing Recognising, understanding, and using scientific language Recording Gathering, recording, classifying and presenting data using diagrams, charts and tables Observing	Forces & Magnets Content: Compare how things move on different surfaces Notice that some forces need contact between objects but magnetic forces do not. Observe how magnets attract and repel each other and some materials. Compare and group materials based on whether they are magnetic. Know magnets have two poles & how they attract and repel each other Skills: Questioning Asking relevant questions and suggesting where and how answers may be found Sorting Identifying, comparing, classifying and grouping Assessing	Plants (How Does Your Garden grow?) Content: Identify and describe function of different parts of flowering plants Explore the requirements of plants for life and growth and variations between plants. how plants transport water Explore the part that flowers play in the life cycle of flowering plants including pollination, seed formation and dispersal. Skills: p Skills: Questioning Asking relevant questions and suggesting where and how answers may be found Sorting Identifying, comparing, classifying and grouping Assessing	Rocks (rocks, Soil and Fossils) Content: comparing and grouping rocks how fossils are created soil Skills: Questioning Asking relevant questions and suggesting where and how answers may be found Sorting Identifying, comparing, classifying and grouping Assessing Recognising, understanding, and using scientific language Recording Gathering, recording, classifying and presenting data using diagrams, charts and tables e.g. branching keys	Light (light and Shadow) Light Content: Why shadows vary in size How shadows are formed Skills: Questioning Asking relevant questions and suggesting where and how answers may be found Assessing Recognising, understanding, and using scientific language Recording Gathering, recording, classifying and presenting data using diagrams, charts and tables Observing Identifying differences, similarities and changes, making

	Recognising, understanding, and using scientific language Recording Gathering, recording, classifying and presenting data using diagrams, charts and tables Observing Identifying differences, similarities and changes, making connections and conclusions Communicating Talking and writing about observations sharing conclusions, suggesting possible reasons for results Testing Carrying out practical enquires, and comparative and fair tests Researching Using primary and secondary information to find out specific ideas, concepts and laws	Identifying differences, similarities and changes, making connections and conclusions Communicating Talking and writing about observations sharing conclusions, suggesting possible reasons for results Testing Carrying out practical enquires, and comparative and fair tests Researching Using primary and secondary information to find out specific ideas, concepts and laws Measuring Estimating, making predictions and measuring accurately, using appropriate equipment	Recognising, understanding, and using scientific language Recording Gathering, recording, classifying and presenting data using diagrams, charts and tables Observing Identifying differences, similarities and changes, making connections and conclusions Communicating Talking and writing about observations sharing conclusions, suggesting possible reasons for results Testing Carrying out practical enquires, and comparative and fair tests Researching Using primary and secondary information to find out specific ideas, concepts and laws Measuring Estimating, making predictions and measuring accurately, using appropriate equipment	Recognising, understanding, and using scientific language Recording Gathering, recording, classifying and presenting data using diagrams, charts and tables Observing Identifying differences, similarities and changes, making connections and conclusions Communicating Talking and writing about observations sharing conclusions, suggesting possible reasons for results Testing Carrying out practical enquires, and comparative and fair tests Researching Using primary and secondary information to find out specific ideas, concepts and laws Measuring Estimating, making predictions and measuring accurately, using appropriate equipment	Observing Identifying differences, similarities and changes, making connections and conclusions Communicating Talking and writing about observations sharing conclusions, suggesting possible reasons for results Testing Carrying out practical enquires, and comparative and fair tests Researching Using primary and secondary information to find out specific ideas, concepts and laws	connections and conclusions Communicating Talking and writing about observations sharing conclusions, suggesting possible reasons for results Testing Carrying out practical enquires, and comparative and fair tests Researching Using primary and secondary information to find out specific ideas, concepts and laws Measuring Estimating, making predictions and measuring accurately, using appropriate equipment

	Autumn1	**Autumn 2**	**Spring 1**	**Spring 2**	**Summer 1**	**Summer 2**
Year 4 Living things and habitats Teacher should address the dangers posed to living things in the height of the Summer and gaps in the children's learning.	Sound (what's that Sound) Content: Identify how sounds are made. Recognise vibrations travel through a medium to the ear. Find patterns between pitch and the object that produced it. Find patterns between volume and the strength of vibrations. Recognise sounds get fainter as the distance from the source increases Skills: Questioning Asking relevant questions and suggesting where and how answers may be found Sorting Identifying, comparing, classifying and grouping Assessing Recognising, understanding, and using scientific language Recording	Animals including humans (teeth and Eating) Content: Describe simple functions of the basic parts of the human digestive system. Identify different types of teeth in humans and their functions. Construct & interpret food chains Skills: Questioning Asking relevant questions and suggesting where and how answers may be found Assessing Recognising, understanding, and using scientific language Recording Gathering, recording, classifying and presenting data using diagrams, charts and tables Observing Identifying differences, similarities and	States of matter (Looking at States) Content: Compare and group materials according to whether they are solids, liquids or gases. Observe that some materials change state when they are heated or cooled. Measure and research temperatures in Celsius. Identity evaporation and condensation in the water cycle. Skills: Questioning Asking relevant questions and suggesting where and how answers may be found Sorting Identifying, comparing, classifying and grouping Assessing Recognising, understanding, and using scientific language Recording	Living things and their habitats - classification (living Things) Content: how living things can be grouped together in a variety of ways. Explore and use classification keys to group, identify and name living things in the local environment Skills: Questioning Asking relevant questions and suggesting where and how answers may be found Sorting Identifying, comparing, classifying and grouping Assessing Recognising, understanding, and using scientific language Recording Gathering, recording, classifying and presenting data using diagrams, charts and tables	Electricity (power It Up) Content: Identify common appliances that run on electricity. Construct simple circuits And name basic parts. Identify whether circuits are complete. Recognise a switch opens and closes and circuit Recognise common insulators & conductors. Skills: Questioning Asking relevant questions and suggesting where and how answers may be found Assessing Recognising, understanding, and using scientific language Recording Gathering, recording, classifying and presenting data using diagrams, charts and tables	Living things and their habitats – environments (Living Things) Content: Recognise environments can change Dangers posed to living things by changes Skills: Questioning Asking relevant questions and suggesting where and how answers may be found Assessing Recognising, understanding, and using scientific language Recording Gathering, recording, classifying and presenting data using diagrams, charts and tables Observing Identifying differences, similarities and changes, making connections and conclusions

	Gathering, recording, classifying and presenting data using diagrams, charts and tables Observing Identifying differences, similarities and changes, making connections and conclusions Communicating Talking and writing about observations sharing conclusions, suggesting possible reasons for results Testing Carrying out practical enquires, and comparative and fair tests Researching Using primary and secondary information to find out specific ideas, concepts and laws Measuring Estimating, making predictions and measuring accurately, using appropriate equipment	changes, making connections and conclusions Communicating Talking and writing about observations sharing conclusions, suggesting possible reasons for results Testing Carrying out practical enquires, and comparative and fair tests Researching Using primary and secondary information to find out specific ideas, concepts and laws	Gathering, recording, classifying and presenting data using diagrams, charts and tables Observing Identifying differences, similarities and changes, making connections and conclusions Communicating Talking and writing about observations sharing conclusions, suggesting possible reasons for results Testing Carrying out practical enquires, and comparative and fair tests Researching Using primary and secondary information to find out specific ideas, concepts and laws Measuring Estimating, making predictions and measuring accurately, using appropriate equipment	Observing Identifying differences, similarities and changes, making connections and conclusions Communicating Talking and writing about observations sharing conclusions, suggesting possible reasons for results Researching Using primary and secondary information to find out specific ideas, concepts and laws	Observing Identifying differences, similarities and changes, making connections and conclusions Communicating Talking and writing about observations sharing conclusions, suggesting possible reasons for results Testing Carrying out practical enquires, and comparative and fair tests Researching Using primary and secondary information to find out specific ideas, concepts and laws Measuring Estimating, making predictions and measuring accurately, using appropriate equipment	Communicating Talking and writing about observations sharing conclusions, suggesting possible reasons for results Testing Carrying out practical enquires, and comparative and fair tests Researching Using primary and secondary information to find out specific ideas, concepts and laws

Year 5	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 5	Properties materials (Material World) Content: Compare & group everyday materials on the basis of their properties. Skills: Questioning Planning different types of scientific enquires, using key questions to guide investigations Sorting Identifying, classifying describing and grouping in a range of scientific contexts and fields Assessing	Changes of materials Reversible change Irreversible change (Amazing Changes) Content: Know some materials dissolve in liquid to form solution & that it can be recovered. Use knowledge of solids, liquids & gases to decide how mixtures might be separated. Demonstrate dissolving & mixing as reversible changes Explain some changes are irreversible. Skills: Questioning	Earth & space (out of this World) Content: Describe the movement of the earth & planets relative to the sun. Describe the movement of the moon relative to the earth. Describe the sun, earth and moon as spherical bodies. Use the idea of earth rotation to explain day and night and the apparent movement of the sun across the sky. Skills: Questioning Planning different types of scientific enquires, using key	Forces (Lets get Moving) Content: Explain that unsupported objects fall to earth due to gravity. Identify the effects of air resistance, water resistance, and friction. Recognise how mechanisms including levers, pulleys & gears allow small force to have a greater effect Skills: Questioning Planning different types of scientific enquires, using key questions to guide investigations Assessing Reading, writing and using a range of scientific terminology	All living things (the Circle of Life) Content: Describe the differences in the life cycles of a mammal, amphibian, and insect and bird Describe the life process of reproduction in some plants and animals Skills: Questioning Planning different types of scientific enquires, using key questions to guide investigations Assessing Reading, writing and using a range of scientific terminology Recording	Animals including humans (growing Up and Growing old) Content: Describe the changes as humans develop to old age. Changes during puberty. Skills: Skills: Questioning Planning different types of scientific enquires, using key questions to guide investigations Assessing Reading, writing and using a range of scientific terminology Recording Recording data and results of increasing complexity, using labelled diagrams, keys tables, bar charts and line graphs

	Reading, writing and using a range of scientific terminology Recording Recording data and results of increasing complexity, using labelled diagrams, keys Observing Observing and identifying connections and causal relationships Communicating Reporting on findings from enquires through oral and writing explanations, justifying conclusions, forming theories to support findings Testing Conducting fair tests, explaining which variables need to be controlled and why, recognising when further tests are needed. Researching Researching the efforts of scientists and identifying evidence that has been used to support or refute theories,	Planning different types of scientific enquires, using key questions to guide investigations Sorting Identifying, classifying describing and grouping in a range of scientific contexts and fields Assessing Reading, writing and using a range of scientific terminology Recording Recording data and results of increasing complexity, using labelled diagrams, keys tables, bar charts and line graphs Observing Observing and identifying connections and causal relationships Communicating Reporting on findings from enquires through oral and writing explanations, justifying conclusions, forming theories to support findings	questions to guide investigations Assessing Reading, writing and using a range of scientific terminology Recording Recording data and results of increasing complexity, using labelled diagrams, keys tables, bar charts and line graphs Observing Observing and identifying connections and causal relationships Communicating Reporting on findings from enquires through oral and writing explanations, justifying conclusions, forming theories to support findings Researching Researching the efforts of scientists and identifying evidence that has been used to support or refute theories,	Recording Recording data and results of increasing complexity, using labelled diagrams, keys tables, bar charts and line graphs Observing Observing and identifying connections and causal relationships Communicating Reporting on findings from enquires through oral and writing explanations, justifying conclusions, forming theories to support findings Testing conducting fair tests, explaining which variables need to be controlled and why, recognising when further tests are needed. Researching Researching the efforts of scientists and identifying evidence that has been used to support or refute theories, successfully sifting key	Recording data and results of increasing complexity, using labelled diagrams, keys tables, bar charts and line graphs Observing Observing and identifying connections and causal relationships Communicating Reporting on findings from enquires through oral and writing explanations, justifying conclusions, forming theories to support findings Researching Researching the efforts of scientists and identifying evidence that has been used to support or refute theories, successfully sifting key pieces of relevant information Measuring Talking measurements using a range of scientific equipment, with accuracy and precision, using test results to make further predictions	Observing Observing and identifying connections and causal relationships Communicating Reporting on findings from enquires through oral and writing explanations, justifying conclusions, forming theories to support findings Researching Researching the efforts of scientists and identifying evidence that has been used to support or refute theories, successfully sifting key pieces of relevant information Measuring Talking measurements using a range of scientific equipment, with accuracy and precision using test results to make further predictions

	successfully sifting key pieces of relevant information. Measuring Talking measurements using a range of scientific equipment, with accuracy and precision, using test results to make further predictions.	Testing conducting fair tests, explaining which variables need to be controlled and why, recognising when further tests are needed. Researching Researching the efforts of scientists and identifying evidence that has been used to support or refute theories, successfully sifting key pieces of relevant information Measuring Talking measurements using a range of scientific equipment, with accuracy and precision , using test results to make further predictions	successfully sifting key pieces of relevant information Measuring Talking measurements using a range of scientific equipment, with accuracy and precision , using test results to make further predictions	pieces of relevant information Measuring Talking measurements using a range of scientific equipment, with accuracy and precision , using test results to make further predictions		

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 6 Light Teachers should begin light as soon as Sats is completed and address any gaps in the children's learning.	Living things & their habitats (classifying Living Things) Content: Describe how living things are classified into broad groups according to observable characteristics, similarities & differences, including micro-organisms, plants & animals. Give reasons for classifications. Skills: Questioning Planning different types of scientific enquires, using key questions to guide investigations	Animals including humans (healthy Bodies) Content: Identify & name parts of the human circulatory system. Describe function of heart, blood vessels & blood. Recognise the impact of diet, exercise, drugs & lifestyle on the way the human body functions. Describe how nutrients and water are transported within animals including humans. Skills: Questioning Planning different types of scientific enquires, using key	Electricity (Electricity) Content: How the brightness of a lamp or the volume of a buzzer may be affected by the number and voltage of cells used in a 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 symbols to represent a simple circuit in a diagram Skills: Questioning	Evolution & inheritance (Evolution and Inheritance) Content: Recognise living things have changed over time. Know 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 with variation. Identify how animals are adapted to their environment and how adaptions lead to evolution. Skills: Questioning Planning different types of scientific enquires, using key questions to guide investigations	Sats Recap and re-address gaps in their learning	Light (light) Content: Recognise light travels in straight lines. Explain that objects are seen because they give out or reflect light to the eye. Explain why shadows have the same shape as the objects that cast them. Skills: Questioning Planning different types of scientific enquires, using key questions to guide investigations Assessing Reading, writing and using a range of scientific terminology Recording Recording data and results of increasing

	Sorting Identifying, classifying describing and grouping in a range of scientific contexts and fields Assessing Reading, writing and using a range of scientific terminology Recording Recording data and results of increasing complexity, using labelled diagrams, keys Observing Observing and identifying connections and causal relationships Communicating Reporting on findings from enquires through oral and writing explanations, justifying conclusions, forming theories to support findings Testing conducting fair tests, explaining which variables need to be controlled and why, recognising when further tests are needed.	questions to guide investigations Assessing Reading, writing and using a range of scientific terminology Recording Recording data and results of increasing complexity, using labelled diagrams, keys Observing Observing and identifying connections and causal relationships Communicating Reporting on findings from enquires through oral and writing explanations, justifying conclusions, forming theories to support findings Testing conducting fair tests, explaining which variables need to be controlled and why, recognising when further tests are needed. Researching Researching the efforts of scientists and identifying	Planning different types of scientific enquires, using key questions to guide investigations Assessing Reading, writing and using a range of scientific terminology Recording Recording data and results of increasing complexity, using labelled diagrams, keys Observing Observing and identifying connections and causal relationships Communicating Reporting on findings from enquires through oral and writing explanations, justifying conclusions, forming theories to support findings Testing conducting fair tests, explaining which variables need to be controlled and why, recognising when further tests are needed. Researching	Sorting Identifying, classifying describing and grouping in a range of scientific contexts and fields Assessing Reading, writing and using a range of scientific terminology Recording Recording data and results of increasing complexity, using labelled diagrams, keys Observing Observing and identifying connections and causal relationships Communicating Reporting on findings from enquires through oral and writing explanations, justifying conclusions, forming theories to support findings Testing conducting fair tests, explaining which variables need to be controlled and why, recognising when further tests are needed. Researching		complexity, using labelled diagrams, keys Observing Observing and identifying connections and causal relationships Communicating Reporting on findings from enquires through oral and writing explanations, justifying conclusions, forming theories to support findings Testing conducting fair tests, explaining which variables need to be controlled and why, recognising when further tests are needed. Researching Researching the efforts of scientists and identifying evidence that has been used to support or refute theories, successfully sifting key pieces of relevant information Measuring Talking measurements using a range of

	Researching Researching the efforts of scientists and identifying evidence that has been used to support or refute theories, successfully sifting key pieces of relevant information	evidence that has been used to support or refute theories, successfully sifting key pieces of relevant information Measuring Talking measurements using a range of scientific equipment, with accuracy and precision, using test results to make further predictions	Researching the efforts of scientists and identifying evidence that has been used to support or refute theories, successfully sifting key pieces of relevant information Measuring Talking measurements using a range of scientific equipment, with accuracy and precision , using test results to make further predictions e.g dataloggers	Researching the efforts of scientists and identifying evidence that has been used to support or refute theories, successfully sifting key pieces of relevant information		scientific equipment, with accuracy and precision , using test results to make further predictions