



Staniland Academy Science Overview



	Autumn	Spring	Summer
EYFS	Autumn 1— Us, our bodies and senses Autumn 2 — Light and Materials Cooking and Baking	Spring 1— Pets and other animals (habitats) Spring 2— How do people use Science to help us?	Summer 1 - Planting and growing (farming) Summer 2 - Transport, movement and forces
Year 1	Autumn 1— Light Autumn 2— Seasonal change (observing and recording throughout the year)	Spring 1—Animals including humans Spring 2 —Materials	Summer 1 —Forces Summer 2 —Plants
Seasonal and weather charting through out the year EYFS and Yr 1			
Year 2	Autumn 1— Things and their habitats Autumn 2— Electricity	Spring 1—Materials Spring 2—Forces	Summer 1—Animals including humans Summer 2— Plants
Year 3	Autumn 1— Materials Autumn 2— Animals including humans	Spring 1—Rocks and soils Spring 2—Magnets	Summer 1—Plants Summer 2— Light
Year 4	Autumn 1— Forces Autumn 2— Electricity	Spring —States of Matter	Summer 1—Living things and their habitats Summer 2—Animals including humans
Year 5	Autumn — Materials	Spring 1—Earth and Space Spring 2—Sound	Summer 1—Living things and their habitats Summer 2— Animals including humans
Year 6	Autumn 1—Evolution and Inheritance Autumn 2—Living things and their habitats	Spring—Animals including humans	Summer 1—Forces Summer 2—Light



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EYFS Term	Autumn	Spring	Summer
Theme N.C PoS	Autumn 1— Us, our bodies and senses Autumn 2 — Light and Materials Cooking and Baking	Spring 1— Pets and other animals (habitats) Spring 2— How do people use Science to help us?	Summer 1 - Planting and growing and farming Summer 2 - Transport, movement and forces.
Skills to be covered	<p>Us, our bodies and senses—</p> <ul style="list-style-type: none"> • Make simple observations about parts of the body 3 to 4 years • Talk about what they see using a wide vocabulary • Understand the key features of the life cycle of a plant and an animal • Begin to understand the need to respect and care for the natural environment and all living things. • Begin to make sense of their own life-story and family's history • Continue developing positive attitudes about the differences between people. <p>Reception</p> <ul style="list-style-type: none"> • Talk about members of their immediate family and community • Name and describe people that are familiar to them • Describe what they see hear and feel while outside <p>Light and Materials-</p> <ul style="list-style-type: none"> • Be able to ask and answer questions (with support) in familiar contexts, e.g. What happens at night? What can we see when it's dark? 3 to 4 years • Explore collections of materials with similar and/or different properties • Use all their senses in hands-on exploration of natural materials. • Talk about what they see using a wide vocabulary • Explore how things work • Talk about the differences between materials and changes they notice. <p>Reception</p> <ul style="list-style-type: none"> • Explore the natural world around them • Describe what they see hear and feel while outside <p>Cooking & Baking:</p> <ul style="list-style-type: none"> • Make observations, comment on how things change, e.g. before and after, chopping, cooking, baking 3 to 4 years • Talk about what they see using a wide vocabulary • Explore how things work • Talk about the differences between materials and changes they notice. 	<p>Pets & Other Animals-</p> <ul style="list-style-type: none"> • To observe closely and present results • Can comment on how two, e.g. animals, are similar or different from each other; notice and describe how they change as they grow • Sort e.g. living things, into two simple groups, using given criteria Communicate what they have learned through drawing 3 to 4 years • Talk about what they see using a wide vocabulary • Understand the key features of the life cycle of a plant and an animal • Begin to understand the need to respect and care for the natural environment and all living things. <p>Reception</p> <ul style="list-style-type: none"> • Explore the natural world around them • Describe what they see hear and feel while outside • Understand the effect of changing seasons on the natural world around them <p>Habitats around us - who lives here?</p> <ul style="list-style-type: none"> • To ask and answer science questions • Ask and answer questions about what they have observed, e.g. Who lives where? Why do some animals live in dark places and some do not? • Select equipment and materials to use to create e.g. a nest, or animal habitat (bug hotel, hedgehog home) 3 to 4 years • Talk about what they see using a wide vocabulary • Understand the key features of the life cycle of a plant and an animal • Begin to understand the need to respect and care for the natural environment and all living things. • Know there are different countries in the world and talk about the differences they have experienced or seen in photos. • Using their senses in hands on exploration of natural materials. <p>Reception</p> <ul style="list-style-type: none"> • Explore the natural world around them • Describe what they see hear and feel while outside • Recognise some environments that are different to the one in which they live • Understand the effect of changing seasons on the natural world around them <p>People that help us</p> <p>3 to 4 years</p> <ul style="list-style-type: none"> • Talk about what they see using a wide vocabulary • Show interest in different occupations • Explore how things work <p>Reception</p> <ul style="list-style-type: none"> • Recognise some similarities and differences between life in this country and life in other countries. • Talk about members of their immediate family and community 	<p>Planting & Growing-</p> <ul style="list-style-type: none"> • To observe closely and record results • Make simple observations of e.g. size, shape, • Comment on what they see as they investigate and on how things change over time • Participate in class data collection. • Farming • To interpret results Communicate orally, in simple descriptions and explanations, e.g. talk about a farm, which animals 3 to 4 years • Talk about what they see using a wide vocabulary • Explore how things work • Plant seeds and care for growing plants • Understand the key features of the life cycle of a plant and an animal • Begin to understand the need to respect and care for the natural environment and all living things. • Use all their senses in hands-on exploration of natural materials. <p>Reception</p> <ul style="list-style-type: none"> • Explore the natural world around them • Know there are different countries in the world and talk about the differences they have experienced or seen in photos. • Describe what they see hear and feel while outside • Understand the effect of changing seasons on the natural world around them <p>Transport</p> <p>3 to 4 years</p> <ul style="list-style-type: none"> • Talk about what they see using a wide vocabulary • Explore how things work • Explore and talk about different forces they can feel • Know there are different countries in the world and talk about the differences they have experienced or seen in photos. <p>Reception</p> <ul style="list-style-type: none"> • Comment on images from familiar situations in the past. • Explore the natural world around them
Re-sources (Texts/ Visual Re-sources)	Body model—see Science cupboard Dark Den—Cupboard	Use plastic animals to create results—server room Bug hotel—nature area Bug exploration—Science cupboard Hungry Caterpillar/ Bear Hunt/ Dear Zoo	What the Ladybug Heard Emma Jane Lost and Found



Staniland Academy Science Overview

Year 1 Term	Autumn	Spring	Summer
Theme N.C PoS	Autumn 1— Light Autumn 2— Seasonal change (observing and recording throughout the year)	Spring 1—Animals including humans Spring 2 —Materials	Summer 1 —Forces Summer 2 —Plants
Progression Statement	<p>Light:</p> <ul style="list-style-type: none"> • Light is needed in order to see things and darkness is the absence of light • Find patterns in the way that the size of a shadow changes • Shiny objects need a light source to “shine” and they are not sources of light <p>Seasonal Change:</p> <ul style="list-style-type: none"> • Observe changes across the four seasons • Observe and describe weather associated with the seasons and how day length varies 	<p>Animals including humans:</p> <ul style="list-style-type: none"> • Identify and name a variety of common animals that are carnivores, herbivores & omnivores • Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals • Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense • Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets) <p>Materials:</p> <ul style="list-style-type: none"> • Distinguish between an object and the material from which it is made • Identify and name a variety of materials, including wood, plastic, glass, metal, water and rock • Describe the simple properties of a variety of everyday materials • Compare and group together a variety of everyday materials on the basis of 	<p>Forces:</p> <ul style="list-style-type: none"> • That pushing or pulling things can make objects start or stop moving • To observe and describe different ways of moving • To know that things can be made to move by other means than ourselves (e.g. wind/water etc) <p>Plants:</p> <ul style="list-style-type: none"> • Identify and describe the basic structure of a variety of flowering plants, including trees, roots, leaves, flowers, stem). • Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees <p style="color: red;">Westgate Woods trip planned in</p>
Working Scientifically Enquiry Type	<p>Light:</p> <ul style="list-style-type: none"> • Pattern seeking/Noticing patterns • Grouping & Classifying <p>Seasonal Changes:</p> <ul style="list-style-type: none"> • Observing changes over time • Pattern Seeking/Noticing patterns 	<p>Animals inc. Humans:</p> <ul style="list-style-type: none"> • Research from Secondary Sources • Comparative Testing • Grouping & Classifying <p>Materials:</p> <ul style="list-style-type: none"> • Comparative Testing • Grouping & Classifying 	<p>Forces:</p> <ul style="list-style-type: none"> • Comparative Testing • Grouping & Classifying <p>Plants:</p> <ul style="list-style-type: none"> • Grouping & Classifying • Research from Secondary Sources • Pattern Seeking
Working Scientifically Skills	<p>Light:</p> <ul style="list-style-type: none"> • Observing closely • Identifying & Classifying • Communicate outcomes in different ways • Gathering & recording data to help in answering questions <p>Seasonal Changes:</p> <ul style="list-style-type: none"> • Gathering & interpreting data • Making careful observations • Communicate outcomes in different ways • Asking & answering questions 	<p>Animals inc. Humans:</p> <ul style="list-style-type: none"> • Observing closely using simple equipment • Asking simple questions and recognising that they can be answered in different ways • Identifying & Classifying • Communicate outcomes in different ways <p>Materials:</p> <ul style="list-style-type: none"> • Observing closely • Identifying & Classifying • Communicate outcomes in different ways • Gathering & recording data to help in answering questions 	<p>Forces:</p> <ul style="list-style-type: none"> • Using simple equipment • Identifying & classifying • Gathering & recording data to help in answering questions <p>Plants:</p> <ul style="list-style-type: none"> • Comparing & contrasting • Identifying & classifying • Observing closely
Resources (Texts/Visual Resources)	Dark den Seasonal change posters—Nature Area	Materials boxes Human body model	Forces boxes Order seeds and soil



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Year 2 Term	Autumn	Spring	Summer
Theme	<p>Autumn 1— Things and their habitats</p> <p>Autumn 1— Electricity</p>	<p>Spring 1—Materials</p> <p>Spring 2—Forces</p>	<p>Summer 1—Animals including humans</p> <p>Summer 2— Plants</p>
Progression Statement TO KNOW	<p>Things and their habitats:</p> <ul style="list-style-type: none"> Explore and compare the differences between things that are living, dead and things that have never been alive Identify that most living things live in habitats to which they are suited and describes how they are suited to that habitat Identify and name a variety of plants and animals in their habitats, including microhabitats Identify animals from a range of animal groups and describes their observable features Describe how animals obtain their food from plants and other animals, using the idea of simple food chains and identify and name different sources of food <p>Electricity :</p> <ul style="list-style-type: none"> Identify common appliances that use 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 	<p>Materials:</p> <ul style="list-style-type: none"> 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. <p>Forces:</p> <ul style="list-style-type: none"> That pushes and pulls are an example of a force That pushes and pulls can make things speed up, slow down, change direction or change shape 	<p>Animals including humans:</p> <ul style="list-style-type: none"> All animals (inc. humans) grow and change as they become older Find out about and describe the basic needs of animals, including humans, for survival (water, food, air) Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene <p>Plants:</p> <ul style="list-style-type: none"> 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
Working Scientifically Enquiry Type TO BE ABLE TO	<p>Living Things & Their Habitats:</p> <ul style="list-style-type: none"> Observing changes over time Grouping & Classifying Research from Secondary Sources <p>Electricity:</p> <ul style="list-style-type: none"> Grouping & Classifying 	<p>Materials:</p> <ul style="list-style-type: none"> Grouping & Classifying Comparative Testing & Simple Fair Tests <p>Forces:</p> <ul style="list-style-type: none"> Grouping & Classifying Comparative Testing & Simple Fair Tests Research from Secondary Sources 	<p>Animals inc. Humans:</p> <ul style="list-style-type: none"> Research from Secondary Sources Observing changes over time Pattern Seeking/Noticing patterns Grouping & Classifying <p>Plants:</p> <ul style="list-style-type: none"> Grouping & Classifying Observing changes over time Comparative Testing & simple Fair Tests Noticing Patterns/Pattern Seeking
Working Scientifically Skills TO BE ABLE TO	<p>Living Things & Their Habitats:</p> <ul style="list-style-type: none"> Using simple equipment Recording observations in a range of ways Use data to suggest answers to question <p>Electricity:</p> <ul style="list-style-type: none"> Identifying differences, similarities or changes related to simple scientific ideas and processes Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions 	<p>Materials:</p> <ul style="list-style-type: none"> Using observations and ideas to suggest answers to questions Gathering and recording data to help in answering questions Using simple equipment Identifying & Classifying Making careful observations <p>Forces:</p> <ul style="list-style-type: none"> Using simple equipment to measure & observe things Using observations & ideas to suggest answers to questions Gathering and recording data to help in answering questions Identifying differences, similarities or changes related to simple scientific ideas and processes 	<p>Animals inc. Humans:</p> <ul style="list-style-type: none"> Gathering & recording data to help in answering questions Using observations and ideas to help answer questions Identifying & Classifying <p>Plants:</p> <ul style="list-style-type: none"> Observing closely, using simple equipment Asking simple questions & recognising they can be answered in different ways Gathering and recording data to help in answering questions Using observations & ideas to suggest answers to questions
Resources (Texts/Visual Resources)	<p>Circuits</p> <p>Animal photos</p> <p>Animals—server room</p>	<p>Forces boxes</p> <p>Materials boxes</p>	<p>Plants—ordered before</p>



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Year 3 Term	Autumn	Spring	Summer
Theme	Autumn 1— Animals including humans Autumn 2— Materials	Spring 1—Rocks and soils Spring 2—Magnets	Summer 1—Plants Summer 2— Light
Progression Statement TO KNOW	<p>Materials:</p> <ul style="list-style-type: none"> That materials often change when they are heated and cooled The same material can be used to make different objects Know that some materials are electrical and thermal insulators Know that some materials are electrical and thermal conductors <p>Animals including Humans:</p> <ul style="list-style-type: none"> Identify teeth and their functions 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 	<p>Rock and Soils:</p> <ul style="list-style-type: none"> 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 that have lived are trapped within rock Recognise that soils are made from rocks and organic matter. <p>Magnets:</p> <ul style="list-style-type: none"> Observe how magnets attract or repel each other Predict whether two magnets will attract or repel each other, depending on which poles are facing Describe magnets as having two poles Compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials Notice that some forces need contact between two objects, but magnetic forces can act at a distance 	<p>Plants:</p> <ul style="list-style-type: none"> Explore the requirements of plants for life and growth (air, light, water, nutrients from the soil, room to grow) and how they vary from plant to plant Investigate the way water is transported within plants Explore the part that flowers play in the lifecycle of flowering plants, including pollination, seed formation and seed dispersal Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers <p>Lights:</p> <ul style="list-style-type: none"> Recognise that shadows are formed when the light from a light source is blocked by an opaque object Recognise that light from the sun can be dangerous and that there are ways to protect their eyes Notice that light is reflected from surfaces
Working Scientifically Enquiry Type TO BE ABLE TO	<p>Materials:</p> <ul style="list-style-type: none"> Grouping & Classifying Comparative & Fair Testing <p>Animals inc. Humans:</p> <ul style="list-style-type: none"> Grouping & Classifying Research from Secondary Sources 	<p>Rocks & Soils:</p> <ul style="list-style-type: none"> Grouping & Classifying Comparative & Fair Testing Observing Changes Over Time Research from Secondary Sources <p>Magnets:</p> <ul style="list-style-type: none"> Grouping & Classifying Comparative & Fair Testing 	<p>Plants:</p> <ul style="list-style-type: none"> Grouping & Classifying Comparative & Fair Testing Observing Changes Over Time Research from Secondary Sources <p>Light:</p> <ul style="list-style-type: none"> Grouping & Classifying Pattern Seeking/Noticing patterns Comparative & Fair Testing
Working Scientifically Skills TO BE ABLE TO	<p>Materials:</p> <ul style="list-style-type: none"> Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables Asking relevant questions & recognising they can be answered in different ways Gathering, recording, classifying and presenting data in a variety of ways to help answer questions Using straightforward scientific evidence to answer questions or to support their findings <p>Animals inc. Humans:</p> <ul style="list-style-type: none"> Asking relevant questions Identifying differences, similarities or changes related to simple scientific ideas and processes Gathering, recording, classifying and presenting data in a variety of ways to help answer questions Making systematic & careful observations Using straightforward scientific evidence to answer questions or to support their findings 	<p>Rocks & Soils:</p> <ul style="list-style-type: none"> Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables Asking relevant questions & recognising they can be answered in different ways Gathering, recording, classifying and presenting data in a variety of ways to help answer questions Using straightforward scientific evidence to answer questions or to support their findings Identifying differences, similarities or changes related to simple scientific ideas and processes <p>Magnets:</p> <ul style="list-style-type: none"> Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions Gathering, recording, classifying and presenting data in a variety of ways to help answer questions Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables Making systematic & careful observations 	<p>Plants:</p> <ul style="list-style-type: none"> Asking relevant questions & recognising they can be answered in different ways Identifying differences, similarities or changes related to simple scientific ideas and processes Setting up & using equipment Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables Using results to draw simple conclusions and suggest improvements, new questions and predictions for setting up further tests Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions <p>Light:</p> <ul style="list-style-type: none"> Gathering, recording, classifying and presenting data in a variety of ways to help answer questions Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions Using results to draw simple conclusions, make predictions for new values Using straightforward scientific evidence to answer questions or to support their findings Identifying differences, similarities or changes related to simple scientific ideas and processes Setting up & Making accurate measurements using standard units, using a range of equipment, for example thermometers and dataloggers
Resources (Texts/Visual Resources)	Materials boxes Human body—Science cupboard	Rocks and soils in cupboard Magnets	Materials Plants — email Mrs Charlesworth



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Year 4 Term	Autumn	Spring	Summer
Theme	Autumn 1— Forces Autumn 1— Electricity	Spring—States of Matter	Summer 1—Living things and their habitats Summer 2—Animals including humans
Progression Statement TO KNOW	<p>Forces:</p> <ul style="list-style-type: none"> Compare how different things move on different surfaces Know that friction is a force that slow moving objects and may prevent objects from starting to move Know when objects are pushed or pulled, an opposing pull or push can be felt Know how to measure forces and identify the direction in which they act <p>Electricity:</p> <ul style="list-style-type: none"> Recognise some common conductors and insulators, and associate metals with being good conductors 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 	<p>States of Matter:</p> <ul style="list-style-type: none"> 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 re-search 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 	<p>Living things and their habitats:</p> <ul style="list-style-type: none"> 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 that living things can be grouped in a variety of ways; Identify and name a variety of common animals including fish, amphibians, reptiles, birds, invertebrates, carnivores, omnivores, herbivores and mammals <p>Animals including humans:</p> <ul style="list-style-type: none"> Describe the basic parts of the digestive system in humans Construct and interpret a variety of food chains, identifying producers, predators and prey Identify that humans and some animals have skeletons and muscles for support, protection and movement
Working Scientifically Enquiry Type TO BE ABLE TO	<p>Electricity:</p> <ul style="list-style-type: none"> Carrying out comparative & fair testing Research from secondary source <p>Forces:</p> <ul style="list-style-type: none"> Pattern seeking/Noticing patterns Comparative & Fair Testing 	<p>States of Matter:</p> <ul style="list-style-type: none"> Grouping & Classifying Observing Changes Over Time Carrying out comparative & fair testing Research from secondary sources 	<p>Living Things & Their Habitats:</p> <ul style="list-style-type: none"> Grouping & Classifying Pattern Seeking/Noticing patterns Research from secondary sources <p>Animals inc. Humans:</p> <ul style="list-style-type: none"> Grouping & Classifying Research from secondary sources
Working Scientifically Skills TO BE ABLE TO	<p>Electricity:</p> <ul style="list-style-type: none"> Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs Reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations Identifying scientific evidence that has been used to support or refute ideas or arguments <p>Forces:</p> <ul style="list-style-type: none"> Taking measurements, using a range of scientific equipment, with increasing accuracy and precision, including taking repeat readings when appropriate Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further question 	<p>States of Matter:</p> <ul style="list-style-type: none"> Identifying differences, similarities or changes related to simple scientific ideas and processes Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions Using straightforward scientific evidence to answer questions or to support their findings 	<p>Living Things & Their Habitats:</p> <ul style="list-style-type: none"> Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions Making systematic & careful observations Making systematic and careful observations and recording findings using diagrams or keys Identifying differences, similarities or changes related to simple scientific ideas and processes Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions Using straightforward scientific evidence to answer questions to support findings <p>Animals inc. Humans:</p> <ul style="list-style-type: none"> Using straightforward scientific evidence to answer questions, or to support their findings Gathering, recording, classifying and presenting data in a variety of ways to help answer questions Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions
Resources (Texts/Visual Resources)	Forces boxes—Phizzy forces Circuit boxes	Meet a farmer—online	Human body—science cupboard



Staniland Academy Science Overview



Year 5 Term	Autumn	Spring	Summer
Theme	Autumn – Materials	Spring 1—Earth and Space Spring 2—Sound	Summer 1—Living things and their habitats Summer 2— Animals including humans
Progression Statement TO KNOW	<p>Materials</p> <ul style="list-style-type: none"> 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 of acid on bicarbonate of soda. 	<p>Earth and Space</p> <ul style="list-style-type: none"> Describe the movement of the Earth, and other planets, relative to the Sun in the solar system Describe the movement of the Moon relative to the Earth Describe the Sun, Earth and Moon as approximately spherical bodies Use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky. <p>Sound</p> <ul style="list-style-type: none"> Identify how sounds are made, associating some of them with something vibrating 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 vibrations that produced it Recognise that sounds get fainter as the distance from the sound source increases Recognise that vibrations from sounds travel through a medium to the ear 	<p>Living things and their habitats:</p> <ul style="list-style-type: none"> Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird Describe the life process of reproduction in some plants and animals <p>Animals including humans:</p> <ul style="list-style-type: none"> Describe the changes as humans develop to old age Compare reproduction in plants with reproduction in animals
Working Scientifically Enquiry Type TO BE ABLE TO	<p>Properties of Materials:</p> <ul style="list-style-type: none"> Grouping & Classifying Carrying out Comparative & Fair Testing Observing Changes Over Time 	<p>Earth & Space:</p> <ul style="list-style-type: none"> Research from Secondary Sources Pattern Seeking/Noticing patterns Observing Changes Over Time <p>Sound:</p> <ul style="list-style-type: none"> Carrying out comparative & fair testing Pattern Seeking/Noticing patterns 	<p>Living Things & Their Habitats:</p> <ul style="list-style-type: none"> Research from Secondary Sources Grouping & Classifying <p>Animals inc. Humans:</p> <ul style="list-style-type: none"> Grouping & Classifying Research from Secondary Sources Pattern Seeking/Noticing Patterns
Working Scientifically Skills TO BE ABLE TO	<p>Properties of Materials:</p> <ul style="list-style-type: none"> Reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations Taking measurements, using a range of scientific equipment, with increasing accuracy and precision, and taking repeat readings when appropriate Identifying scientific evidence that has been used to support or refute ideas or argument Using test results to make predictions to set up further comparative and fair tests Planning different types of science enquiries to answer questions, including recognising and controlling variables where necessary Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs and bar and line graphs Using test results to make predictions to set up further comparative and fair test 	<p>Earth & Space:</p> <ul style="list-style-type: none"> Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs and bar and line graphs Reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations Taking measurements, using a range of scientific equipment, with increasing accuracy and precision, and taking repeat readings when appropriate Identifying scientific evidence that has been used to support or refute ideas or argument Using test results to make predictions to set up further comparative and fair tests <p>Sound:</p> <ul style="list-style-type: none"> Identifying differences, similarities or changes related to simple scientific ideas and processes Recording findings using drawings and labelled diagrams Reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including data loggers 	<p>Living Things & Their Habitats:</p> <ul style="list-style-type: none"> Reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations Identifying scientific evidence that has been used to support or refute ideas or arguments <p>Animals inc. Humans</p> <ul style="list-style-type: none"> Reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations Identifying scientific evidence that has been used to support or refute ideas or argument Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs and bar and line graphs
Resources (Texts/Visual Resources)	Materials Email—Mrs Charlesworth before needing any resources	Space box Sound box	Order soil and plants



Staniland Academy Science Overview



Year 6 Term	Autumn	Spring	Summer
Theme	Spring 1—Evolution and Inheritance Spring 2—Living things and their habitats	Summer —Animals including humans	Summer 1—Forces Summer 2—light
Progression Statement TO KNOW	<p>Evolution and Inheritance:</p> <ul style="list-style-type: none"> 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. <p>Living things and their habitats:</p> <ul style="list-style-type: none"> Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals Give reasons for classifying plants and animals based on specific characteristics. 	<p>Animals including humans:</p> <ul style="list-style-type: none"> Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function Identify and name the main parts of the human circulatory system and describe the functions of the heart, blood vessels and blood Describe the ways in which nutrients and water are transported within animals, including humans. 	<p>Forces:</p> <ul style="list-style-type: none"> Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the earth and falling object Identify the effects of air resistance, water resistance and friction, that act between moving surfaces Recognise that some mechanisms, including levers, pulleys, gears allow a smaller force to have a greater effect <p>Light:</p> <ul style="list-style-type: none"> 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 Recognise that light appears to travel in straight lines Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them 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
Working Scientifically Enquiry Type TO BE ABLE TO	<p>Evolution & Inheritance:</p> <ul style="list-style-type: none"> Grouping & Classifying Research From Secondary Sources Carrying out Comparative & Fair Tests <p>Living Things & Their Habitats:</p> <ul style="list-style-type: none"> Grouping & Classifying Observing changes over time Research from Secondary Sources 	<p>Animals inc. Humans:</p> <ul style="list-style-type: none"> Research from Secondary Sources Grouping & Classifying Carrying out comparative & fair testing 	<p>Forces:</p> <ul style="list-style-type: none"> Carrying out Comparative & Fair Testing Noticing Patterns/Pattern Seeking <p>Light:</p> <ul style="list-style-type: none"> Noticing Patterns/Pattern Seeking Carrying out comparative & Fair Tests
Working Scientifically Skills TO BE ABLE TO	<p>Evolution & Inheritance:</p> <ul style="list-style-type: none"> Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs and bar and line graphs Identifying scientific evidence that has been used to support or refute ideas Planning different types of enquiries to answer questions including recognising and controlling variables where necessary Reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations <p>Living Things & Their Habitats:</p> <ul style="list-style-type: none"> Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, and bar and line graphs Reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations Identifying scientific evidence that has been used to support or refute ideas Planning different types of enquiries to answer questions including recognising and controlling variables where necessary 	<p>Animals inc. Humans:</p> <ul style="list-style-type: none"> Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, and bar and line graphs Reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations Identifying scientific evidence that has been used to support or refute ideas or arguments Taking measurements, using a range of scientific equipment, with increasing accuracy and precision, and taking repeat readings when appropriate 	<p>Forces:</p> <ul style="list-style-type: none"> Identifying scientific evidence that has been used to support or refute ideas or argument Planning different types of science enquiries to answer questions, including recognising and controlling variables where necessary Using test results to make predictions to set up further comparative and fair tests Reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs and bar and line graphs Taking measurements, using a range of scientific equipment, with increasing accuracy and precision, and taking repeat readings when appropriate <p>Light:</p> <ul style="list-style-type: none"> Identifying scientific evidence that has been used to support or refute ideas Using test results to make predictions to set up further comparative and fair tests Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs and bar and line graphs Planning different types of enquiries to answer questions including recognising and controlling variables where necessary Reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations
Resources (Texts/Visual Resources)		Forces box Light box	Human body resources