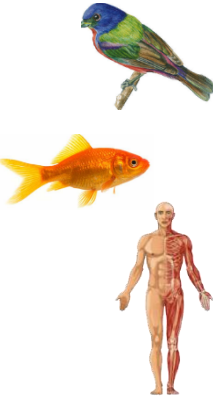











Tenacres First School – Progression of skills (Curriculum coverage) 2019-20

Curriculum lead: Emily Parkinson

Unit of work	Year 1	Year 2	Year 3	Year 4
<p><u>BIOLOGY</u></p> <p>Animals, including humans.</p> 	<ul style="list-style-type: none"> Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals. Identify and name a variety of common animals that are carnivores, herbivores and omnivores. Describe and compare the structure of a variety of common animals. Identify, name, draw and label the basic parts of the human body and say which part is associated with each sense. 	<ul style="list-style-type: none"> Notice that animals have offspring that grow into adults. Find out about and describe the basic needs of animals for survival (water, food and air). 	<ul style="list-style-type: none"> Identify that animals need the right types and amount of nutrition. Identify that animals cannot make their own food. Identify that animals get nutrition from what they eat. Identify that humans and some other animals have skeletons and muscles for support, protection and movement. 	<ul style="list-style-type: none"> Describe the simple functions of the basic parts of the digestive system in humans. Identify the different types of teeth in humans and their simple functions. Construct and interpret a variety of food chains, identifying producers, predators and prey.
<p>Living things and their habitats.</p> 		<ul style="list-style-type: none"> Explore and compare the differences between things that are living, dead and never been alive. Identify that most living things live in habitats to which they are suited and describe how different habitats provide for 		<ul style="list-style-type: none"> Recognise that living things can be grouped in a number of ways. Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment.

		<p>the basic needs of different kinds of animals.</p> <ul style="list-style-type: none"> Identify and name a variety of plants and animals in their habitats. Describe how animals obtain their food from plants and other animals using a simple food chain. Identify and name the different sources of food. 		<ul style="list-style-type: none"> Recognise that environments can change and this sometimes poses dangers to living things.
<p>Plants.</p>  	<ul style="list-style-type: none"> Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees. Identify and describe the basic structure of a variety of common flowering plants, including trees. 	<ul style="list-style-type: none"> Observe and describe how plants need water, light and a suitable temperature to grow and stay healthy. 	<ul style="list-style-type: none"> Identify and describe the functions of different parts of flowering plants (roots, stem, trunk, leaves and flowers). Explore the requirements for life and growth (air, light, water, nutrients, room to grow) and how they vary from plant to plant. Investigate the way in which water is transported within plants. Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal. 	
<p><u>CHEMISTRY</u></p>	<p><u>Everyday materials</u></p> <ul style="list-style-type: none"> Distinguish between an object and the material from which it is made. 	<p><u>Uses of everyday materials</u></p> <ul style="list-style-type: none"> Identify and compare the suitability of a variety of everyday materials including 		<p><u>States of matter</u></p> <ul style="list-style-type: none"> Compare and group materials together according to whether

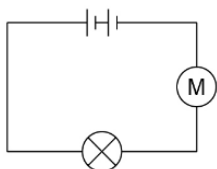
<p>Materials.</p> 	<ul style="list-style-type: none"> Identify and name a variety of everyday materials including wood, plastic, glass, metal, water and rock. Describe the simple physical properties of a variety of everyday materials. Compare and group together a variety of everyday materials on the basis of their simple physical properties. 	<p>wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses.</p> <ul style="list-style-type: none"> Find out how the shapes of solid objects made from some materials can be changed by squishing, bending, twisting and stretching. 		<p>they are solids, liquids or gasses.</p> <ul style="list-style-type: none"> Observe that some materials change state when they are heated or cooled and measure or research the temperature at which this happens in degrees c. Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.
<p>Rocks.</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>PHYSICS</p> <p>Light.</p> 			<ul style="list-style-type: none"> Recognise that they need light in order to see things and that dark is the absence of light. Notice that light is reflected from surfaces. Recognise that light from the sun can be dangerous and that 	





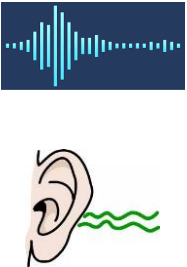
there are ways to protect their eyes.

- Recognise that shadows are formed when the light from a light source is blocked by a solid object.
- Find patterns in the way that the size of shadows change.

Electricity.



- Identify common appliances that run on electricity.
- Construct a simple series electrical circuit, identifying and naming its basic parts including cells, wires, bulbs, switches and buzzers.
- Identify whether or not a lamp will light in a simple series circuit based on whether or not the lamp is part of a complete loop with a battery.
- Recognise that a switch opens and closes a circuit.
- Recognise some common conductors and insulators and associate metals with being good conductors.

<p>Forces and magnets.</p> 			<ul style="list-style-type: none"> • Compare how things move on different surfaces. • Notice that some forces need contact between two objects but magnetic forces can act at a distance. • Observe how magnets attract or repel each other and attract some materials and not others. • Compare and group together a variety of every day materials on the basis of whether they are magnetic. • Describe magnets as having two poles. • Predict whether two magnets will attract or repel each other. 	
<p>Seasonal changes.</p> 	<ul style="list-style-type: none"> • Observe changes across the four seasons. • Observe and describe the weather associated with the seasons and how day length varies. 			
<p>Sound</p> 				<ul style="list-style-type: none"> • Identify how sounds are made, associating some of them with something vibrating. • Recognise that vibrations from sounds travel through a medium to the ear. • Find patterns between the pitch of a sound and features of the object that produced it. • Find patterns between the volume of a sound and the

				<p>strength of the vibrations that produced it</p> <ul style="list-style-type: none">• Recognise that sounds get fainter as the distance from the sound source increases.
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Tenacres First School - Progression of skills (Working Scientifically) 2019-20

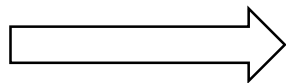
Referenced from *The Centre for Industry and Education Collaboration*

Progression from EYFS to Lower Key Stage 2

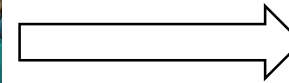
Key objective	EYFS
Questioning	Show curiosity about objects, events and people (<i>Playing & Exploring</i>). Question why things happen (<i>Speaking 30-50 months</i>).
Scientific enquiries	Engage in open-ended activity (<i>Playing & Exploring</i>).
Answering questions	Take a risk, engage in new experiences and learn by trial and error. (<i>Playing & Exploring</i>).
Carrying out tests	Find ways to solve problems, find new ways to do things, test their ideas. (<i>Creating & Thinking Critically</i>).
Identifying and classifying	Develop ideas of grouping, sequences, cause and effect. (<i>Creating & Thinking Critically</i>). Know about similarities and differences with places/objects/material/living things. (<i>ELG: The World</i>).
Using sources	Comments on and asks questions about aspects of their familiar world such as the place where they live of the natural world. (<i>The World 30-50 months</i>).
Observing	Closely observes what animals, people and vehicles do. (<i>The World 8-20 months</i>). Use senses to explore the world around them. (<i>Playing & Exploring</i>).
Comment upon patterns	Make links and notice patterns in their experience. (<i>Creating & Thinking Critically</i>).
Using equipment	Choose the resources they need for their chosen activities. (<i>ELG: Self Confidence & Self Awareness</i>). Handle equipment and tools effectively. (<i>ELG: Moving & Handling</i>).
Recording	Create simple representations of events, people and objects. (<i>Being Imaginative 40-60+ months</i>).
Explaining conclusions	Answer how and why questions about their experiences. (<i>ELG: Understanding</i>). Make observations of animals and plants and explain why some things occur. (<i>ELG: The World</i>).
Using scientific language	Develop their own narratives and explanations by connecting ideas or events. (<i>ELG: Speaking</i>). Build up vocabulary that reflects the breadth of their experiences. (<i>Understanding 30-50 months</i>).



EYFS



Key Stage 1



Lower Key Stage 2

Curriculum lead: Emily Parkinson
Progressions of skills 2019-20 (Scientific Enquiry)



Tenacres First School - Progression of skills (Working Scientifically) 2019-20

Referenced from The Centre
for Industry and Education
Collaboration

Progression from Key Stage 1 to Lower Key Stage 2

Key objective	Key Stage 1	Lower Key Stage 2
Questioning	Explore the world around them and raise their own simple questions.	Raise their own relevant questions about the world around them.
Scientific enquiries	Experience different types of science enquiries, including practical activities.	Should be given a range of scientific experiences including different types of science enquiries to answer questions.
Answering questions	Begin to recognise different ways in which they might answer scientific questions.	Start to make their own decisions about the most appropriate type of scientific enquiry they might use.
Carrying out tests	Carry out simple tests.	Set up simple practical enquiries, comparative investigations and fair tests.
Identifying and classifying	Use simple features to compare, objects, materials and living things and, with help, decide how to sort them.	Talk about criteria for grouping, sorting and classifying using simple keys.
Using sources	Ask people questions and use simple secondary sources to find answers.	Recognise when and how secondary sources might help them to answer questions that cannot be answered through practical investigations.
Observing	Observe closely using simple equipment and with help, observe changes over time.	Make systematic and careful observations by making decisions about how they are going to be recorded.
Comment upon patterns	With guidance, they should begin to notice patterns and relationships.	Begin to look for naturally occurring patterns and decide what data to collect to identify them.
Using equipment	Use simple measurements and equipment (e.g. hand lenses, egg timers) to gather data.	Take accurate measurements using standard units and learn how to use a range of new equipment (e.g. data loggers, thermometers).
Recording	Record simple data.	Collect and record data from their own observations/measurements in a variety of ways e.g. notes, bar charts, tables, drawings and keys etc.
Explaining conclusions	Use their observations and ideas to suggest answers to questions and talk about what/how they found it out.	With help, pupils should look for changes and patterns in their data and draw simple conclusions.
Using scientific language	With help, they should record and communicate their findings in a range of ways and begin to use simple scientific language.	Use relevant simple scientific language to discuss their ideas and communicate their findings.
Making predictions		With support, they should identify new questions from their data and make predications with new values.

Curriculum lead: Emily Parkinson
Progressions of skills 2019-20 (Scientific Enquiry)



Tenacres First School - Progression of skills (Working Scientifically) 2019-20

EYFS



I can use my senses and look closely.

I test my ideas.

I notice similarities and differences.

I can create simple representations of people and objects.

I use my equipment and tools carefully.

I question why things happen.

I have my own ideas.

I can begin to use science words.

I can talk about things like plants, animals, natural and found objects.

Referenced from The Centre for Industry and Education Collaboration



Tenacres First School - Progression of skills (Working Scientifically) 2019-20

Key Stage One

I gather and record simple data in different ways.

I perform simple tests.

I use simple equipment to make measurements.

I can compare things.
I sort and group them.

I use simple scientific language.



I can recognise that questions can be answered in different ways.

I ask simple questions.

I observe closely.

I talk about what I have found out.

Referenced from The Centre for Industry and Education Collaboration



Tenacres First School - Progression of skills (Working Scientifically) 2019-20

Lower Key Stage Two

I set up my own simple tests.

I ask my own questions and use different ways to answer them.

I use relevant scientific language.

I suggest improvements and raise further questions.

I make careful observations.

I use different equipment to measure accurately in standard units.

I gather, record, classify and present data in different ways including drawings, labelled diagrams, keys, bar charts and tables.

I explain what I have found out using speaking and writing.

I draw simple conclusions and make predictions.



Referenced from The Centre for Industry and Education Collaboration