

Year 2 Unit Progression in disciplinary knowledge followed by unit summaries

Year 2	Properties of materials Compare suitability of materials to their uses and the impact of changing their shape	Thrive and Survive (Nutrition and growth) Identify what animals need to thrive and survive	Reproduction Notice that animals reproduce	Alive (Structure and Function) Observe how plants grow	Thrive and Survive (Nutrition and growth) Identify what plants need to thrive and survive Alive: Identify the 7 life processes	Thrive and Survive (Nutrition and growth) Identify how plants and animals thrive and survive together in habitats
Generalisations	Children can make observations and measurements of the given dependent variables and use these to sort and classify.	Children can make observations and measurements at controlled times of the given dependent variable and use these to sort and classify or record in given simple tables.	Children can make observations and measurements at controlled times of the given dependent variable and use these to sort and classify or record in given simple tables.	Children can make observations and measurements at controlled times of the given dependent variable and use these to sort and classify or record in given simple tables, bar charts or Venn diagrams.	Children can make observations and measurements at controlled times of the given dependent variable and use these to sort and classify or record in given simple tables, bar charts or Venn diagrams, identifying possible answers to their questions	Children can make observations and measurements at controlled times of the given dependent variable and use these to sort and classify or record in given simple tables, bar charts or Venn diagrams, identifying possible answers to their questions
Observing and measuring	<ul style="list-style-type: none"> I know that to observe means to look closely and notice similarities and differences related to my enquiry question I know that measuring tells the size of something. I know how to use same sized objects to make measure comparison 	<ul style="list-style-type: none"> I know that to observe means to look closely and notice similarities and differences related to my enquiry question I know observation can be instant or take place over time. 	<ul style="list-style-type: none"> I know observation can be instant or take place over time. 	<ul style="list-style-type: none"> I know how to use a hand lens I know that a hand lens makes small objects appear bigger 		
Recording Data	<ul style="list-style-type: none"> I can add labels to pictures to highlight features I can group things based on given criteria 	<ul style="list-style-type: none"> I can add labels to pictures to highlight features I have observed I know where to place my data on a given simple table 	<ul style="list-style-type: none"> I know where to place my data on a given simple table 	<ul style="list-style-type: none"> I know where to place my data on a given bar chart / pictogram/ Venn diagram 	<ul style="list-style-type: none"> I can add labels to pictures to highlight features I have observed 	<ul style="list-style-type: none"> I know where to place my data on a given bar chart / pictogram/ Venn diagram
Asking and exploring questions	<ul style="list-style-type: none"> I can sort and classify using given criteria 	<ul style="list-style-type: none"> I know that scientific questions should be based on something I can observe or measure. I know that variables change over time 	<ul style="list-style-type: none"> I know that variables change over time 	<ul style="list-style-type: none"> I know that groups and sorting helps us observe similarities and differences. 		<ul style="list-style-type: none"> I know that groups and sorting helps us observe similarities and differences.
Performing Tests	<ul style="list-style-type: none"> I can follow a modelled investigation in small parts 	<ul style="list-style-type: none"> I can follow a modelled investigation in small parts 	<ul style="list-style-type: none"> I can follow a modelled investigation in small parts 			
Concluding, prediction, evaluating				<ul style="list-style-type: none"> I can use my observations and recordings to suggest an answer to my question. 	<ul style="list-style-type: none"> I can use my observations and recordings to suggest an answer to my question. I know that my observations and recordings enable me to answer my question 	<ul style="list-style-type: none"> I can use my observations and recordings to suggest an answer to my question. I know that my observations and recordings enable me to answer my question
Applications & Communication						

Year 2 Unit Plans (Black writing has been QA by steering group, Red is collaborative network planning)

Yr 2 A1	BIG Q: What can you use different materials for?					
<p>Compare suitability of materials to their uses and the impact of changing their shape</p> <p>Pupils should identify and discuss the uses of different everyday materials so that they become familiar with how some materials are used for more than one thing (metal can be used for coins, cans, cars and table legs; wood can be used for matches, floors, and telegraph poles) or different materials are used for the same thing (spoons can be made from plastic, wood, metal, but not normally from glass). They should think about the properties of materials that make them suitable or unsuitable for particular purposes and they should be encouraged to think about unusual and creative uses for everyday materials. Pupils might find out about people who have developed useful new materials, for example John Dunlop, Charles Macintosh or John McAdam.</p> <p>Pupils might work scientifically by: comparing the uses of everyday materials in and around the school with materials found in other places (at home, the journey to school, on visits, and in stories, rhymes and songs); observing closely, identifying and classifying the uses of different materials, and recording their observations.</p>						
Lesson Qs	Elicitation / Activate Which material are you choosing for which function?	What makes the structure of plastic and glass suitable for some functions?	What makes the structure of paper and cardboard suitable for some functions?	What makes the structure of wood and rock suitable for some functions?	What makes the structure of metal and fabric suitable for some functions?	Application / Assess What can you use different materials for?
<p>Key Concepts</p> <p><u>Properties of materials</u></p>	<ul style="list-style-type: none"> Objects are made from materials. Materials have properties (structure) which allow them to do different things (function). These vary and help us to identify what type of material it is. 	<ul style="list-style-type: none"> Know and apply the properties of plastic to identify objects it is suited and not suited to. Know and apply the properties of glass to identify objects it is suited and not suited to. 	<ul style="list-style-type: none"> Know and apply the properties of paper to identify objects it is suited and not suited to. Know and apply the properties of cardboard to identify objects it is suited and not suited to. 	<ul style="list-style-type: none"> Know and apply the properties of wood to identify objects it is suited and not suited to. Know and apply the properties of rock to identify objects it is suited and not suited to. 	<ul style="list-style-type: none"> Know and apply the properties of metal to identify objects it is suited and not suited to. 	<ul style="list-style-type: none"> Know that a material's properties make it suitable for different uses.
Disciplinary Concepts		<p>Observing and Measuring</p> <ul style="list-style-type: none"> I know that to observe means to look closely and notice similarities and differences related to my enquiry question. I know that measuring tells the size of something. I know how to use same sized objects to make measure comparison 	<p>Observing and Measuring</p> <ul style="list-style-type: none"> I know that to observe means to look closely and notice similarities and differences related to my enquiry question. <p>Asking and exploring questions</p> <ul style="list-style-type: none"> I can sort and classify using given criteria 	<p>Asking and exploring questions</p> <ul style="list-style-type: none"> I can sort and classify using given criteria <p>Recording Data</p> <ul style="list-style-type: none"> I can add labels to pictures to highlight features I can group things based on given criteria 	<p>Recording Data</p> <p>I can add labels to pictures to highlight features I have observed</p> <p>I can group things based on given criteria</p> <p>Applications</p> <p>I can recognise an application of science.</p>	Children can make observations and measurements of the given dependent variables and use these to sort and classify.
Key learning tasks	<p>Provide materials: glass, plastic, cardboard, paper, metal in different forms.</p> <p>Chn experience the materials and then justify and reason what they are selecting to build a house and why – e.g. plastic for the windows to allow light through etc.</p>	<ul style="list-style-type: none"> Find examples of the material (glass / plastic) being used for different purposes (functions) ICG: enquiry: Which materials would be suitable for a window? Draw attention to the DV as the functionality – e.g. strong, transparent etc. Model and practice ways of observing measuring the function (DV) Identify suitable materials through observing the DV Use results to sort and classify 	<ul style="list-style-type: none"> Find examples of the material (paper/ cardboard) being used for different purposes (functions) – sort and classify ICG: enquiry: Which materials would be suitable for a box to hold pencils? ID the DV as the functionality – e.g. strong, transparent etc. Id the CV as the materials tested. Identify suitable materials through observing the DV Use results to discuss: same object, different material – what's the advantages? 	<ul style="list-style-type: none"> Find examples of the material (rock/ wood) being used for different purposes (functions) – sort and classify ICG: enquiry: Which materials would be suitable for a box to hold pencils? ID the DV as the functionality – e.g. strong, transparent etc. Id the CV as the materials tested. Identify suitable materials through observing the DV Record results in labelled pictures Use results to discuss: same object, different material – what's the advantages? 	<ul style="list-style-type: none"> Find examples of the material (metal and fabric) being used for different purposes (functions) ICG: enquiry: ID the DV as the functionality – e.g. strong, transparent etc. Id the CV as the materials tested. Identify suitable materials through observing the DV Record results in labelled pictures Use results to discuss: same object, different material – what's the advantages? 	Make an umbrella – reason and justify or materials using structure and function
Generalisation	Materials have properties (structure) which allows them to do different things	Materials with similar properties can do similar jobs (functions)	Materials with similar properties can do similar jobs (functions)	Materials with similar properties can do similar jobs (functions)	Materials with similar properties can do similar jobs (functions)	Materials have properties (structure) which allows them to do different things and

	and therefore impacts how you use them to make objects.	Materials with different properties do different jobs (functions) A materials properties make it suitable for its use.	Materials with different properties do different jobs (functions) A materials properties make it suitable for its use.	Materials with different properties do different jobs (functions) A materials properties make it suitable for its use.	Materials with different properties do different jobs (functions) A materials properties make it suitable for its use.	therefore impacts how you use them to make objects. If you change the material's properties (structure) you change its use (function)
Yr 2 A2	BIG Q: What do animals need to survive and thrive? Identify what animals need to thrive and survive					
Pupils should be introduced to the basic needs of animals for survival, as well as the importance of exercise and nutrition for humans. Pupils might work scientifically by: asking questions about what things animals need for survival and what humans need to stay healthy; and suggesting ways to find answers to their questions.						
Lesson Qs	Elicitation / Activate	What do animals need to survive?	What do humans need to thrive?	How does exercise help humans to thrive?	How does good hygiene help humans to thrive?	Application / Assess What do animals need to survive and thrive?
Key Concepts <u>Thrive and Survive (Nutrition and growth)</u>	<ul style="list-style-type: none"> Animals and plants have different body parts (structure) which allow them to do different things (functions) These parts vary and this helps us identify what type of animal they are. 	<ul style="list-style-type: none"> Know that animals need water, food and air to survive. 	<ul style="list-style-type: none"> Know that humans need a balanced diet of carbohydrate, vegetable and protein 	<ul style="list-style-type: none"> Know that humans need exercise to maintain their structure and movement. 	<ul style="list-style-type: none"> Know the importance of hygiene for good health. 	<ul style="list-style-type: none"> Know what animals need to thrive and survive.
Disciplinary Concepts	Children can make observations and measurements of the given dependent variables and use these to sort and classify.	Observing and measuring <ul style="list-style-type: none"> I know that to observe means to look closely and notice similarities and differences related to my enquiry question Asking and exploring questions <ul style="list-style-type: none"> I know that scientific questions should be based on something I can observe or measure. 	Recording Data <ul style="list-style-type: none"> I know where to place my data on a given simple table Asking and exploring questions <ul style="list-style-type: none"> I know that scientific questions should be based on something I can observe or measure. I know that variables change over time 	Recording Data <ul style="list-style-type: none"> I know where to place my data on a given simple table Asking and exploring questions <ul style="list-style-type: none"> I know that scientific questions should be based on something I can observe or measure. I know that variables change over time Performing Tests <ul style="list-style-type: none"> I can follow a modelled investigation in small parts 	Recording Data <ul style="list-style-type: none"> I know where to place my data on a given simple table Asking and exploring questions <ul style="list-style-type: none"> I know that variables change over time Performing Tests <ul style="list-style-type: none"> I can follow a modelled investigation in small parts 	Children can make observations and measurements at controlled times of the given dependent variable and use these to sort and classify or record in given simple tables.
Key learning tasks		<ul style="list-style-type: none"> What things do animals need for survival? Investigate what animals need for survival. Draw attention to DV survival need which will be what is observed or measured Investigated for different animals - Produce simple tick table from class research to answer question 	<ul style="list-style-type: none"> How does the amount of carbohydrate, vegetable and protein we eat change as we grow – Obs over time Identify how the question is based on something we can observe or measure ii.e. amount of food type) Identify how enquiry is over time and we pick the time intervals e.g. growth stage. Children complete a given table 	<ul style="list-style-type: none"> Obs over time enquiry - exercise Identify how the question is based on something we can observe or measure Identify how enquiry is over time and we pick the time intervals Children perform part of test and complete a given table 	<ul style="list-style-type: none"> Obs over time enquiry – hygiene – washing hands Identify how the question is based on something we can observe or measure Identify how enquiry is over time and we pick the time intervals – how much left after time intervals Children perform part of test and complete a given table 	
Generalisation		Animals need energy (food) and materials (air and water) to stay alive.	The energy allows their body parts (structure) to do their job (function).	Our body parts (structure) works best (functions) when we are healthy (the right conditions).	Our body parts (structure) works best (functions) when we are healthy (the right conditions).	Animals need energy (food) and materials (air and water) to stay alive. The energy allows their body parts (structure) to do their job (function). Our body parts (structure) works best

						(functions) when we are healthy (the right conditions).
Yr 2 Sp1	<p align="center">BIG Q: What do you notice about animal adults and their offspring?</p> <p align="center">Notice that animals reproduce</p> <p>Pupils should be introduced to the processes of reproduction and growth in animals. The focus at this stage should be on questions that help pupils to recognise growth; they should not be expected to understand how reproduction occurs. The following examples might be used: egg, chick, chicken; egg, caterpillar, pupa, butterfly; spawn, tadpole, frog; lamb, sheep. Growing into adults can include reference to baby, toddler, child, teenager, adult. Pupils might work scientifically by: observing, through video or first-hand observation and measurement, how different animals, including humans, grow.</p>					
Lesson Qs	Elicitation / Activate	Where do animals come from?	How do humans change over time?	How are life cycles different?	Is human growth the same in everyone?	Application / Assess What do you notice about animal adults and their offspring?
Key Concepts <u>Reproduction</u>	<ul style="list-style-type: none"> Animals and plants have different body parts (structure) which allow them to do different things (functions) Animals need energy (food) and materials (air and water) to stay alive. The energy allows their body parts (structure) to do their job (function). Our body parts (structure) works best (functions) when we are healthy (the right conditions). 	<ul style="list-style-type: none"> Know that animals have offspring Know the names of common animals and their offspring e.g. egg, chick, chicken, egg, fry, fish, puppy dog 	<ul style="list-style-type: none"> Know offspring grow into adults baby, toddler, teenager, adult 	<ul style="list-style-type: none"> Know the names of common animals and their offspring e.g. caterpillar, pupa, butterfly e.g. egg, tadpole, froglet, frog, Know that animals are living things, so they reproduce. 	<ul style="list-style-type: none"> 	
Disciplinary Concepts	Children can make observations and measurements at controlled times of the given dependent variable and use these to sort and classify or record in given simple tables.	Observing and measuring <ul style="list-style-type: none"> I know observation can be instant or take place over time. Recording Data <ul style="list-style-type: none"> I know where to place my data on a given simple table 	Observing and measuring <ul style="list-style-type: none"> I know observation can be instant or take place over time. Recording Data <ul style="list-style-type: none"> I know where to place my data on a given simple table Asking and exploring questions <ul style="list-style-type: none"> I know that variables change over time 	Observing and measuring <ul style="list-style-type: none"> I know observation can be instant or take place over time. Recording Data <ul style="list-style-type: none"> I know where to place my data on a given simple table Asking and exploring questions <ul style="list-style-type: none"> I know that variables change over time 	Observing and measuring <ul style="list-style-type: none"> I know observation can be instant or take place over time. Recording Data <ul style="list-style-type: none"> I know where to place my data on a given simple table Asking and exploring questions <ul style="list-style-type: none"> I know that variables change over time Performing Tests <ul style="list-style-type: none"> I can follow a modelled investigation in small parts 	Children can make observations and measurements at controlled times of the given dependent variable and use these to sort and classify or record in given simple tables.
Key learning tasks	<ul style="list-style-type: none"> Set up enquiry – grow butterflies in class/observe tadpoles (based on school environment) 	<ul style="list-style-type: none"> Complete a simple table to summarise knowledge of animals and their young e.g parent name, offspring – live young or egg, offspring name Sort and classify animals according to their life cycle – e.g. lays eggs, has live babies. 	<ul style="list-style-type: none"> Observe how humans change at different stages of the life cycle. Recognise this as changes that happen over a long period of time. Record changes in a table of time against changes seen. 	<ul style="list-style-type: none"> Observe the differences that occur over time in the life cycle of a frog and butterfly. Recognise this as changes that happen over a shorter period of time than humans. Record changes in a table of time against changes seen. 	<ul style="list-style-type: none"> Investigate an element of human growth – e.g. size of hand etc. Focus on placing data in a given table and observing the dependent variable. 	<ul style="list-style-type: none">
Generalisation		Adult animal offspring sometimes have the same structure and function as their parents.	Adult animal offspring grow into the same type of adult (species).	Adult animal offspring sometimes do not have the same structure and function as their parents	Adult animal offspring sometimes do not have the same structure and function as their parents	Adult animal offspring do not always have the same structure and function as their parents but do grow into the same type of adult (species).

Yr 2 Sp2	<p align="center">BIG Q: What do you notice about plant adults and their offspring?</p> <p align="center">Observe how plants grow</p> <p>Pupils should use the local environment throughout the year to observe how plants grow. Pupils should be introduced to the requirements of plants for germination and the processes of reproduction and growth in plants. Note: seeds and bulbs need water to grow but most do not need light; seeds and bulbs have a store of food inside them. Pupils might work scientifically by: observing and recording, with some accuracy, the growth of a variety of plants as they change over time from a seed or bulb, or observing similar plants at different stages of growth; setting up a comparative test to show that plants need light and water to stay healthy.</p>					
Lesson Qs	Elicitation / Activate	Where do some plants come from?	What is the first stage of plant growth?	How can we tell the difference between a seedling, a young plant, and a mature plant?	How do trees change over time?	Application / Assess
<p>Key Concepts <u>Alive</u> <u>(Structure and Function)</u></p>	<ul style="list-style-type: none"> Plants have different parts (structure) e.g. leaves, stems, flowers. These parts vary and this helps us identify what type of plant it is. Adult animal offspring do not always have the same structure and function as their parents but do grow into the same type of adult (species). 	<ul style="list-style-type: none"> Know that plants are living things, so they reproduce. Know that seeds and bulbs are plant offspring Know the difference between a seed and a bulb 	<ul style="list-style-type: none"> Know that bulbs and seeds have a store of food inside them allowing them to start the growth process. Know that germination of the first stage of plant growth 	<ul style="list-style-type: none"> Know the difference between a seedling, young plant and mature plant 	<ul style="list-style-type: none"> Know the difference between a seedling, young plant and mature plant 	
<p>Disciplinary Concepts – teachable</p>	<p>Children can make observations and measurements at controlled times of the given dependent variable and use these to sort and classify or record in given simple tables.</p>	<p>Observing and measuring</p> <ul style="list-style-type: none"> I know how to use a hand lens I know that a hand lens makes small objects appear bigger <p>Recording Data</p> <ul style="list-style-type: none"> I know where to place my data on a given Venn diagram <p>Asking and exploring questions</p> <ul style="list-style-type: none"> I know that groups and sorting helps us observe similarities and differences. <p>Performing Tests</p> <ul style="list-style-type: none"> I can follow a modelled investigation in small parts 	<p>Observing and measuring</p> <ul style="list-style-type: none"> I know how to use a hand lens I know that a hand lens makes small objects appear bigger <p>Recording Data</p> <ul style="list-style-type: none"> I know where to place my data on a given bar chart <p>Asking and exploring questions</p> <ul style="list-style-type: none"> I know that groups and sorting helps us observe similarities and differences. <p>Performing Tests</p> <ul style="list-style-type: none"> I can follow a modelled investigation in small parts <p>Concluding, prediction, evaluating</p> <ul style="list-style-type: none"> I can use my observations and recordings to suggest an answer to my question. 	<p>Asking and exploring questions</p> <ul style="list-style-type: none"> I know that groups and sorting helps us observe similarities and differences. <p>Concluding, prediction, evaluating</p> <ul style="list-style-type: none"> I can use my observations and recordings to suggest an answer to my question. 	<p>Asking and exploring questions</p> <ul style="list-style-type: none"> I know that groups and sorting helps us observe similarities and differences. <p>Concluding, prediction, evaluating</p> <ul style="list-style-type: none"> I can use my observations and recordings to suggest an answer to my question. 	<p>Children can make observations and measurements at controlled times of the given dependent variable and use these to sort and classify or record in given simple tables, bar charts or Venn diagrams.</p>
<p>Key learning tasks</p>		<ul style="list-style-type: none"> Identify that a hand lens is used to perform close observation of the DV Sort and classify plant offspring by chosen criteria. Children identify the chosen criteria as the DV they are closely observing. Challenge pupils to think through criteria that requires closer observation. Children sort and record using a given venn diagram of 2 parts (physical form) 	<ul style="list-style-type: none"> Observation over time into seed or bulb germination (this can be a physical enquiry over time or a time lapse video) How does the height of cress change over time? Identify the control as the time at which observations will be made and the dv as the changes seen at that time. Record results as a physical bar chart of cubes (one cube for each cm) 	<ul style="list-style-type: none"> Observation over time into plant growth (time lapse video) How does a plant change over time? Identify the control as the time at which observations will be made and the dv as the changes seen at that time. Record observations and use tot conclude 	<ul style="list-style-type: none"> Observation over time into tree growth (time lapse video) How does a tree change over time? Identify the control as the time at which observations will be made and the dv as the changes seen at that time. Record observations and use tot conclude 	
<p>Generalisation</p>		<p>Grown plants’ offspring do not always have the same structure and function as their parents</p>	<p>Grown plants’ offspring grow into the same type of adult (species).</p>	<p>Grown plants’ offspring do not always have the same structure and function as their parents but do grow into the same type of adult (species).</p>	<p>Grown plants’ offspring do not always have the same structure and function as their parents but do grow into the same type of adult (species).</p>	<p>Grown plants’ offspring do not always have the same structure and function as their parents but do grow into the same type of adult (species).</p>

Yr 2 Su1	<p style="text-align: center;">BIG Q: What do plants need to thrive and survive?</p> <p style="text-align: center;">Identify what plants need to thrive and survive</p> <p>Pupils should use the local environment throughout the year to observe how plants grow. Pupils should be introduced to the requirements of plants for germination, growth and survival, as well as the processes of reproduction and growth in plants. Note: seeds and bulbs need water to grow but most do not need light; seeds and bulbs have a store of food inside them. Pupils might work scientifically by: observing and recording, with some accuracy, the growth of a variety of plants as they change over time from a seed or bulb, or observing similar plants at different stages of growth; setting up a comparative test to show that plants need light and water to stay healthy.</p>					
Lesson Qs	Elicitation / Activate	How does the amount of water affect plant health?	How does the amount of light affect plant health?	How does the amount of heat affect plant growth?	What is the structure and function of a living thing?	Application / Assess What do plants need to thrive and survive?
Key Concepts <u>Thrive and Survive (Nutrition and growth)</u>	<ul style="list-style-type: none"> Plants have different parts (structure) e.g. leaves, stems, flowers. These parts vary and this helps us identify what type of plant it is. Grown plants' offspring do not always have the same structure and function as their parents but do grow into the same type of adult (species). The sun is the main source of heat energy and light energy on earth. Energy enables things to happen The amount of heat and light varies through the seasons. 	<ul style="list-style-type: none"> Know that plants need water to grow and stay healthy. Know that the absence of one or more of these will affect the health and growth of the plant. 	<ul style="list-style-type: none"> Know that plants need light and the to grow and stay healthy. Know that the absence of one or more of these will affect the health and growth of the plant. 	<ul style="list-style-type: none"> Know that plants need and the correct temperature to grow and stay healthy. Know that the absence of one or more of these will affect the health and growth of the plant. 	<ul style="list-style-type: none"> Know that something that is living has to have 7 life processes (MRS NERG) Know that a living thing is dead if it no longer has all 7. Know that it has never been alive if it has never had all 7. 	
Disciplinary Concepts	<ul style="list-style-type: none"> Children can make observations and measurements at controlled times of the given dependent variable and use these to sort and classify or record in given simple tables, bar charts or Venn diagrams. 	Recording Data <ul style="list-style-type: none"> I can add labels to pictures to highlight features I have observed Performing Tests <ul style="list-style-type: none"> I can follow a modelled investigation in small parts Concluding, prediction, evaluating <ul style="list-style-type: none"> I can use my observations and recordings to suggest an answer to my question. I know that my observations and recordings enable me to answer my question 	Recording Data <ul style="list-style-type: none"> I can add labels to pictures to highlight features I have observed Performing Tests <ul style="list-style-type: none"> I can follow a modelled investigation in small parts Concluding, prediction, evaluating <ul style="list-style-type: none"> I can use my observations and recordings to suggest an answer to my question. I know that my observations and recordings enable me to answer my question 	Recording Data <ul style="list-style-type: none"> I know where to place my data on a given bar chart Performing Tests <ul style="list-style-type: none"> I can follow a modelled investigation in small parts Concluding, prediction, evaluating <ul style="list-style-type: none"> I can use my observations and recordings to suggest an answer to my question. I know that my observations and recordings enable me to answer my question 	Performing Tests <ul style="list-style-type: none"> I can follow a modelled investigation in small parts Concluding, prediction, evaluating <ul style="list-style-type: none"> I can use my observations and recordings to suggest an answer to my question. I know that my observations and recordings enable me to answer my question 	Children can make observations and measurements at controlled times of the given dependent variable and use these to sort and classify or record in given simple tables, bar charts or Venn diagrams, identifying possible answers to their questions
Key learning tasks		<ul style="list-style-type: none"> Comparative test -amount of water for plants Identify the DV as the amount of water and the CV as the same type of plant Record DV observations Use observations to answer enquiry question 	<ul style="list-style-type: none"> Comparative test -amount of light for plants Identify the DV as the amount of light and the CV as the same type of plant Record DV observations Use observations to answer enquiry question 	<ul style="list-style-type: none"> Comparative test -temperature for plants Identify the DV as the temperature (too hold cold etc and the CV as the same type of plant Give chn results in a table and they add to a given bar chat Use observations to answer enquiry question 	<ul style="list-style-type: none"> Identifying and classifying enquiry – living things Identify the DV as the 7 life processes and use to classify a selection of living and non-living things. Conclude how we can identify if something is living 	
Generalisation		Plants need energy (light), and materials (air and water) to stay alive.	Plants need energy (light), and materials (air and water) to stay alive. The plants' parts (structure) works best (functions) when they are healthy (have the right conditions).	The plants' parts (structure) works best (functions) when they are healthy (have the right conditions).	Plants need energy (light), and materials (air and water) to stay alive. The energy allows their parts (structure) to do their job (function). The plants' parts (structure) works best (functions) when they are healthy (have the right conditions). Living things have shared functions which keep them alive	Plants need energy (light), and materials (air and water) to stay alive. The energy allows their parts (structure) to do their job (function). The plants' parts (structure) works best (functions) when they are healthy (have the right conditions). Living things have shared functions which keep them alive

Yr 2 Su2	<p align="center">BIG Q: How do different habitats help animals and plants to thrive and survive?</p> <p align="center">Identify how plants and animals thrive and survive together in habitats</p> <p>Pupils should be introduced to the idea that all living things have certain characteristics that are essential for keeping them alive and healthy. They should raise and answer questions that help them to become familiar with the life processes that are common to all living things. Pupils should be introduced to the terms 'habitat' (a natural environment or home of a variety of plants and animals) and 'microhabitat' (a very small habitat, for example for woodlice under stones, logs or leaf litter). They should raise and answer questions about the local environment that help them to identify and study a variety of plants and animals within their habitat and observe how living things depend on each other, for example, plants serving as a source of food and shelter for animals. Pupils should compare animals in familiar habitats with animals found in less familiar habitats, for example, on the seashore, in woodland, in the ocean, in the rainforest.</p> <p>Pupils might work scientifically by: sorting and classifying things according to whether they are living, dead or were never alive, and recording their findings using charts. They should describe how they decided where to place things, exploring questions like: 'Is a flame alive? Is a deciduous tree dead in winter?' and talk about ways of answering their questions. They could construct a simple food chain that includes humans (eg, grass, cow, human). They could describe the conditions in different habitats and microhabitats (under log, on stony path, under bushes); and find out how the conditions affect the number and type(s) of plants and animals that live there.</p>					
Lesson Qs	Elicitation / Activate	Can animals and plants live any where?	Why do animals need plants to survive?	How can we show the relationship between animals and plants?	Why don't [animal] live in [environment]?	Application / Assess
<p>Key Concepts</p> <p><u>Thrive and Survive (Nutrition and growth)</u></p>	<ul style="list-style-type: none"> Plants and animals have different parts (structure) which enable a function. These parts vary and this helps us identify what type it is. The sun is the main source of heat energy and light energy on earth. Energy enables things to happen Plants need energy (light), and materials (air and water) to stay alive. The energy allows their parts (structure) to do their job (function). The plants' parts (structure) works best (functions) when they are healthy (have the right conditions). Living things have shared functions which keep them alive 	<ul style="list-style-type: none"> Know that a habitat is the environment in which an animal or plant usually lives. 	<ul style="list-style-type: none"> Explain why previously studied plants and animals live in their habitats. 	<ul style="list-style-type: none"> Explain how plants and animals depend on each other. Know that a simple food chain starts with a plant and contains one or more animals 	<ul style="list-style-type: none"> Construct a food chain using previously taught animals and plants. 	
Disciplinary Concepts	<ul style="list-style-type: none"> Children can make observations and measurements at controlled times of the given dependent variable and use these to sort and classify or record in given simple tables, bar charts or Venn diagrams, identifying possible answers to their questions 	<p>Recording Data</p> <ul style="list-style-type: none"> I know where to place my data on a given bar chart / pictogram/ Venn diagram <p>Asking and exploring questions</p> <ul style="list-style-type: none"> I know that groups and sorting helps us observe similarities and differences. <p>Concluding, predicting and evaluating</p> <ul style="list-style-type: none"> I can use my observations and recordings to suggest an answer to my question. I know that my observations and recordings enable me to answer my question 	<p>Concluding, predicting and evaluating</p> <ul style="list-style-type: none"> I can use my observations and recordings to suggest an answer to my question. I know that my observations and recordings enable me to answer my question 	<p>Concluding, predicting and evaluating</p> <ul style="list-style-type: none"> I can use my observations and recordings to suggest an answer to my question. I know that my observations and recordings enable me to answer my question 	<p>Recording Data</p> <ul style="list-style-type: none"> I know where to place my data on a given bar chart / pictogram/ Venn diagram <p>Concluding, predicting and evaluating</p> <ul style="list-style-type: none"> I can use my observations and recordings to suggest an answer to my question. I know that my observations and recordings enable me to answer my question 	Children can make observations and measurements at controlled times of the given dependent variable and use these to sort and classify or record in given simple tables, bar charts or Venn diagrams, identifying possible answers to their questions
Key learning tasks	Sorting objects etc into living, non-living, never alive (Mrs NERG) Familiarising themselves with common plants and animals	<ul style="list-style-type: none"> Identification and classification enquiry – animals and their habitats (forest, sea, garden) Identify how observations of feature (DV) helps sort through similarities and differences. Record as a three way Venn – why are some sections empty? 	<ul style="list-style-type: none"> Modelling food chains. Exploring how energy transfers through the food chain What do you observe about the food chain? What does this represent? How doe our observations help us answer the question? 	To create a food chain using known animals and plants (this could be within the local environment or linked to geography teaching)	Exploring what happens if humans change animals environments. (eg adding a lion)	Design a suitable environment for a chosen animal.
Generalisation		Living things live together in habitats on land and water. These can be large (forest, sea) or small (pond, garden)	Energy is transferred in habitats through food chains.	Energy is transferred in habitats through food chains.	Living things live together in habitats for which they are suited.	Living things live together in habitats. Energy is transferred in habitats through food chains.