






Year R – Scientific Enquiry Skills

	Comparative Test	<ul style="list-style-type: none">• To make sense and increase knowledge of the physical world.
	Identify & Classify.	<ul style="list-style-type: none">• To make sense and increase knowledge of the physical world.
	Observation Over Time	<ul style="list-style-type: none">• Observing the changing seasons and life cycles
	Pattern Seeking	<ul style="list-style-type: none">• Explore the natural world around them
	Research & Communication	<ul style="list-style-type: none">• Enrich and wider vocabulary.

EYFS <u>Plants</u>	Knowledge	Skills	Linked Texts	Sticky Vocabulary
<p>In Early Years Children have the opportunity to:</p> <ul style="list-style-type: none"> • Make observations of plants • Know some names of plants, trees and flowers • May be able to name and describe different plants, trees and flowers • Show some care for their world around them 	<p>I can talk about where plants come from</p> <p>I can give some simple examples of what a seed needs to grow and explain what happens</p>	<p>I can describe what I can see hear and feel outside</p> <p>I can describe plants (both from photos and real life experiences)</p> <p>I can make observations of plants and use these to draw pictures.</p>	<p>Jack and the Beanstalk</p> <p>The Tiny Seed</p> <p>Variety of non-fiction texts</p> <p>Oliver’s Vegetables</p>	<p>Leaf</p> <p>Water</p> <p>Sun</p> <p>Seed</p> <p>roots</p> <p>shoot</p> <p>oak</p> <p>acorn</p>
EYFS Animals including humans	Knowledge	Skills	Linked Texts	Sticky Vocabulary
<p>In Early Years children have the opportunity to:</p> <ul style="list-style-type: none"> • be able to identify different parts of their body. • Have some understanding of healthy food and the need for variety in their diets. • Be able to show care and concern for living things. • Know the effects exercise has on their bodies. • Have some understanding of growth and change. • Can talk about things they have observed including animals • Through adult modelling and guidance, they will learn how to look after their bodies, including healthy eating, and manage personal needs independently. • manage their own basic hygiene and personal needs, including dressing, going to the toilet, and understanding 	<p>I can name some animals</p> <p>I am starting to label some parts of animals</p> <p>I am starting to use some scientific vocabulary</p> <p>I am beginning to use some new and unusual vocabulary</p> <p>I can name some common animals</p> <p>I can use some new, unusual and scientific vocabulary to talk about animals</p> <p>I can label some of the parts of animals</p> <p>I can spot and name a variety of common animals- carnivore, herbivore, omnivore</p> <p>I can describe and compare the structure of a variety of common animals</p> <p>I can talk about what I see using a wide vocabulary</p> <p>I can talk about the changes that happen to minibeasts using knowledge from stories and texts</p> <p>I can talk about a minibeast’s lifecycle using knowledge from stories and texts</p> <p>I should brush my teeth every morning and night</p>	<p>I can describe animals using a varied vocabulary including some scientific words</p> <p>I can describe what I can see here and feel</p> <p>I can make observations of animals, including those in my own environment and some from photographs/ books</p> <p>I am starting to explain what I see</p> <p>I can make observations</p> <p>I can use my observations to answer questions</p> <p>I am able to give clear explanations</p> <p>I can describe minibeasts from both photos and real life experiences</p> <p>I can make observations of minibeasts and use these observation to draw pictures</p>	<p>Tadpole’s Promise</p> <p>The Very Hungry Caterpillar</p> <p>Aaghhh Spider</p> <p>Superworm</p> <p>Arctic Animals</p> <p>Lost and Found</p> <p>Variety of non-fiction texts</p> <p>Little People Big Dreams – David Attenborough</p>	<p>Frog</p> <p>Tadpole</p> <p>Worm</p> <p>Caterpillar</p> <p>Change</p> <p>Polar bear</p> <p>penguin</p> <p>bear</p> <p>spider</p> <p>Toothbrush/ toothpaste</p> <p>Back / front /Inside /top</p> <p>Plaque</p> <p>Tooth ache</p> <p>Dentist</p> <p>Visit / appointment</p>

the importance of healthy food choices.	I know that some food has lots of sugar in it and sugar is not good for our teeth. I can talk about foods that are good/not good for our teeth I know water is the best drink for our teeth/fizzy drinks and juice are not good for our teeth. I know I should brush our teeth for 2 minutes at least twice a day			
EYFS Seasons and how they change	Knowledge	Skills	Linked Texts	Sticky Vocabulary
<p>In Early Years children have the opportunity to:</p> <ul style="list-style-type: none"> Developing an understanding of change. Observe and explain why certain things may occur (e.g leaves falling off trees, weather changes). Look closely at similarities, differences, patterns and change. Comments and questions about the place they live or the natural world. 	<p>I can name the seasons and some of the changes that happen during them. I can observe which changes happen over time and start to make links - e.g. winter-snow-cold.</p>	<p>I can make observations of the seasons and the weather I can use these observation to create pictures I can use my observations to answer questions I can describe the changes in the seasons</p>	<p>The Leaf Thief Jack Frost Variety of non-fiction texts</p>	<p>Blossom Change Winter Autumn Summer spring</p>
EYFS Materials	Knowledge	Skills	Linked Texts	Sticky Vocabulary
<p>In Early Years have the opportunity to:</p> <ul style="list-style-type: none"> Be able to ask questions about the place they live. Talk about why things happen and how things work. Discuss the things they have observed such as natural and found objects. Manipulates materials to achieve a planned effect. 	<p>I know about the change in materials and can describe/explore some of these materials I can label some materials using appropriate vocabulary I am learning to describe materials I can say what materials are good for I can describe the properties of materials I can give examples of some materials and changes I can describe how materials change and why</p>	<p>I am learning to explore materials using my senses I am learning the differences in materials using appropriate vocabulary I am learning to compare and group materials I can explore and change materials I can explore the uses of materials and start to talk about how and why materials change I can confidently talk about the properties of materials and investigate them using scientific vocabulary</p>	<p>Variety of non-fiction texts We're Going on a Bear Hunt The Bear in the Cave Emma Jane's Aeroplane Mr Gumpy's Outing Whatever Next Little People Big Dreams – Neil Armstrong</p>	<p>Hard</p>
EYFS Forces	Knowledge	Skills	Linked Texts	Sticky Vocabulary

<p>In Early Years have the opportunity to:</p> <ul style="list-style-type: none"> • Talk about why things happen and how things work. 	<p>I am starting to show how things can be moved by pushing or pulling I know about forces for movement- pushes and pulls I am confident in talking about the forces of pushing and pulling</p>	<p>I am starting to show that I understand how to make things work I am starting to talk about how things work- link to push and pull I can talk about how things work</p>	<p>Mr Gumpy's Motor Car/Outing The Naughty Bus The Hundred decker Bus Emma Jane's Aeroplane Whatever Next The Train Ride Variety of Non-fiction texts</p>	<p>Floating Sinking Push Wheels Pull</p>
<p>EYFS Light</p>	<p>Knowledge</p>	<p>Skills</p>	<p>Linked Texts</p>	<p>Sticky Vocabulary</p>
<p>In Early Years have the opportunity to:</p> <ul style="list-style-type: none"> • Talk about sun safety 	<p>I know some of the ways we can stay safe at the seaside and in the sun I know that we need to stay safe in the sun and at the seaside and some of the ways we do this. I can talk about different ways we stay safe at the seaside and in the sun e.g. water, sun, coastguard.</p>	<p>I can describe ways we can stay safe in the sun. I am learning to look after myself in the sun.</p>	<p>The light house keeper's lunch Lucy and Tom at the seaside Seaside poems/What the ladybird heard at the seaside Commotion in the ocean Sharing a shell The storm Whale Clean up! Night Pirates</p>	<p>Sun Safe Hat</p>

<p>Term 1 All about Me Who am I? Materials & Seasons</p>	<p>Term 2 Terrific Tales What is a story? Materials & Seasons</p>	<p>Term 3 Amazing Animals Animals & Seasons</p>	<p>Term 4 The Great Outdoors How does a garden grow? Plants & Seasons</p>	<p>Term 5 Transport and Travel How do we get around? Forces & Seasons</p>	<p>Term 6 Under the Sea What is it like to be beside the seaside? Animals, Light & Seasons</p>
<ul style="list-style-type: none"> • Comparing, classifying and sorting activity using investigation and discussion • Investigate materials for building linked to Three Little Pigs • Builder's yard – which materials work best for building? • Explore 'cement' adding water to sand and 	<ul style="list-style-type: none"> • Porridge oats- add water and explore. What happens with more water? What happens with less? • Dough- create bread or gingerbread biscuits together (story focus could be Little Red Hen or Gingerbread Man) • Mould the dough, cut, shape, change the texture (compare to oats- more liquid/ less liquid) 	<ul style="list-style-type: none"> • Knowledge Share- What animals live in Africa/The Artic/Antarctic etc? • Show some pictures of animals- how are they suited to their environment? Look at animal patterns, camouflage, etc. • Start to talk about animal habitats • Label animal parts 	<ul style="list-style-type: none"> • Knowledge Share- What do you think this bean needs to become a beanstalk? • Leave out beans and seeds for the children to explore and plant independently • Plant beans together and make observations about what is happening • Extend children to think about what the bean needs and is getting to grow 	<ul style="list-style-type: none"> • Provide opportunities for children to explore wheeled toys or objects that roll- e.g. pushing small world cars/ cylinders/vehicles down ramps- which travels furthest/ fastest? Explore the force of pushing the car. • Visit a playground- how do 	<ul style="list-style-type: none"> • What can we find in a rockpool? Explore the types of animals that live in rockpools. Use "Sharing a shell" by Julia Donaldson to support understanding. Start to research what the animals are and how they look. Observational drawing from photographs, fact files, etc.

<p>changing the material for building</p>	<ul style="list-style-type: none"> • How does the dough change when it is baked? • Explore the changes- what else changes when we cook it? • Provide cooked dough and uncooked to explore the differences • Explore taste, smell and texture of foods by eating biscuits, bread, etc and saying what we like best and why. 	<ul style="list-style-type: none"> • Name and label common animals e.g. lion, elephant, dog etc • Sort and classify animals • Frozen bubbles – blow bubbles onto a frozen surface and watch how the bubbles freeze • Pass an ice cube around - how does it melt? • Watching clips of working animals • Pet survey 	<ul style="list-style-type: none"> • Questioning- will the bean grow if...? Conduct simple experiments into plant growth to stimulate conversation- allow children the time to explore this freely by providing beans and seeds to plant. • Provide real life beanstalks or photos- what has happened to these beans? • Look at beans on the plant e.g. broad beans- where is the seed? Investigate! • Provide a range of fruits with seeds exposed- what are these? Give children time to explore and ask questions about the seeds • Think about how to change the seed into a plant- what do we have to do? Link to other learning about growing plants. • Provide pictures of a variety of minibeasts as a stimulus for discussion and questioning · Create a wormery together- https://www.woodlandtrust.org.uk/blog/2020/05/how-to-make-a-wormery/ • Extend children to think about what minibeasts need to grow. Focus on the worms- what do they need? • Knowledge Share- What do you think a caterpillar will become? • Questioning- what will happen to the caterpillar? Use the story of The Very 	<p>we make the equipment move? – Swings at the park or Trim Trail on school grounds</p> <ul style="list-style-type: none"> • Explore the outside and listen out for/look for different types of vehicles. How do they move – wheels, wings/tracks • Recognise some differences in environments – towns/cities/beaches/space • Explore the forces they can feel outside – wind. Use ribbons/make kites/floating and sinking • Look at examples of different bridges. Make bridges that can cross water/hold a heavy object/space rockets 	<ul style="list-style-type: none"> • Explore natural and man-made materials at the seaside e.g. shells, driftwood, sand. Then look at things that maybe shouldn't be there... rubbish, leaving things behind. Talk about keeping our beaches clean- link to Clean Up! By Nathan Byron • Sun safety
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			<p>Hungry Caterpillar to discuss. If you have chance watch some caterpillars turn into butterflies using a butterfly kit.</p> <ul style="list-style-type: none"> • Look for butterflies and caterpillars in the outdoor area or school grounds. Create some observational drawings and describe the minibeasts • Minibeast hunt- where do they live? Dig for worms and woodlice, butterflies, caterpillars, ants, etc. 	
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Seasons: routine, environment, play to learn sessions, fascinations set ups, Drawing Club texts and Story time sessions, forest school visits, outdoor learning, circle times.

Future Learning
<p>In Year 1 Children will (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. • Identify and name the roots, trunk, branches and leaves of trees. <p>In Year 1 Children will (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 <p>In Year 1 Children will (Seasons and how they 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>In Year 1 Children will (Materials and Material investigations)</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 everyday materials, including wood, metal, plastic, glass, 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 properties

