Science Unit of Work Year 1			
Unit	**Prior learning (Retrieval)**	**Future learning**	**Common Misconceptions**
Animals including humans 	• Knowledge of some animals from observations eg at the zoo or as pets.	• Know animals need the right types and amounts of nutrition and they cannot make their own food. • Know that humans and some other animals have skeletons and muscles. • Know the simple functions of basic parts of the digestive system • Know how to construct and interpret food chains. • Know how humans change and develop to old age. • Know and name the main parts of the human circulatory system. • Know the impact of diet, exercise, drugs and lifestyle on the way bodies function. • Know how nutrients and water are transported within animals.	• All animals that live in the sea are fish • All bugs are insects • Amphibians and reptiles are the same • Humans aren't animals • Insects aren't animals
National Curriculum Subject Content:	• 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 (fish, amphibians, reptiles, birds and mammals including pets) • Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense		
Knowledge:			**Key Vocabulary**
Intended Knowledge Substantive	1) Know the names for parts of the body (head, neck, arms, elbows, legs, knees, face, ears, eyes, hair, mouth, teeth) 2) Know which part of the body is associated with each sense. 3) Know what animals eat and group them. 4) Know and name a variety of animals including a fish, amphibian (frog), reptile (snake), bird and mammal (dog, cat, human). 5) Know and compare the structure of a variety of common animals.		beak, carnivore, claw, fin, fur, herbivore, omnivore, scales, senses, taste, thigh, waist
Working Scientifically:	**Enquiry**	**Working Scientifically Objectives**	**Working Scientifically Vocabulary**
Disciplinary Knowledge:	Comparative enquiry Which part of my body is best for feeling? Group animals based on what they eat.	• Ask simple questions (yes/no) • Identify and classify animals • Make simple predictions	Compare, classify, question, prediction
Assessment Outcomes	Substantive I know the names for parts of the body I know which part of the body is associated with each sense I know what some animals eat and can classify them eg (carnivore- lion, tiger, shark omnivore- human, monkey, pig herbivore-cow, zebra, rabbit) I know and can name a variety of animals including fish, amphibians, reptile, bird and mammal. I know and can compare the structure of a variety of common animals.		Disciplinary • I can classify animals into groups • I can use simple equipment to make observations. • I can ask simple questions • I can use results to make further predictions • I can present findings and explain results.
Significant people/places	Sir David Attenborough		

Science Unit of Work
Year 1

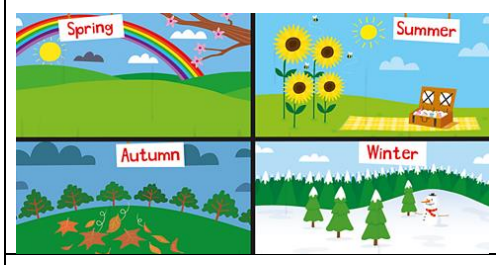
Unit	Prior learning (Retrieval)	Future learning	Common Misconceptions
Materials 	Know and be familiar with the name of some materials eg paper, wood, glass, metal Explored a variety of resources made of different materials in EYFS.	• Know how materials can be changed by squashing, bending, twisting and stretching. • Know why a material might or might not be useful for a specific job.	• Only fabric is a material • Solid is another word for hard • Rock describes an object not a material

National Curriculum Subject Content:	• Distinguish between an object and the material from which it is made • 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

Knowledge:		**Key Vocabulary**
Intended Knowledge Substantive	1) Know the difference between an object and the material it is made from. 2) Know and name a variety of everyday materials including wood, plastic, glass, metal, water and rock. 3)Know simple physical properties of everyday materials (listed above)	Absorbent, bendy/floppy, hard, material, opaque, object, rough, transparent, shiny, smooth, stretchy, waterproof

Working Scientifically:	**Enquiry**	**Working Scientifically Objectives**	**Working Scientifically Vocabulary**
Disciplinary Knowledge:	• Compare and group together a variety of everyday materials based on their simple physical properties.	• Use observations and ideas to suggest answers to questions. • Begin to use simple scientific language to talk about what they have found out. • Perform simple tests. • Gather and record data to help in answering questions.	• Compare, identify, classify
Assessment Outcomes	Substantive I know the difference between an object and the material it is made from. I know and can name a variety of everyday materials. I know the simple physical properties of everyday materials.		Disciplinary I can compare and group together a variety of everyday materials based on their physical properties. I can make predictions about the properties of different materials.
Significant people/places	Charles Macintosh		

<table>
<tr><th colspan="4">Science Unit of Work
Year 1</th></tr>
<tr><th>Unit</th><th>Prior learning (Retrieval)</th><th>Future learning</th><th>Common Misconceptions</th></tr>
<tr><td>Plants
  </td><td>Observed plants
Know names such as leaf, flower, petal
Know that plants can die</td><td>Know and explain how seeds and bulbs grow into plants
Know what plants need in order to grow and stay healthy (water, light and suitable temperature)</td><td>Plants are flowering plants grown in pots.
Trees are not plants
All stems are green
Minerals in the soil, water and carbon dioxide are food for plants</td></tr>
<tr><td>National Curriculum Subject Content:</td><td colspan="3">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</td></tr>
<tr><th colspan="3">Knowledge:</th><th>Key Vocabulary</th></tr>
<tr><td>Intended Knowledge Substantive</td><td colspan="2">1) Know and name the petals, stem, leaves and roots of a plant.
2) Know and name the roots, trunk, branches and leaves of a tree.
3) Know the difference between deciduous and evergreen trees.
4) Know the names of common garden plants- vegetables, daffodils, sunflower and poppy.
5) Know the name of common wild plants- dandelion, daisy, buttercup and nettle.</td><td>Bulb, branch, deciduous, evergreen, stem, root, petal, dandelion, daisy, buttercup, daffodils, sunflower, poppy.</td></tr>
<tr><th>Working Scientifically:</th><th>Enquiry</th><th>Working Scientifically Objectives</th><th>Working Scientifically Vocabulary</th></tr>
<tr><td>Disciplinary Knowledge:</td><td>Use simple observations to identify and classify plants based on a range of characteristics.
Observation over time- Record how plants change over time for example leaves falling off trees or buds opening.</td><td>Observe closely using simple equipment safely
Use their observations and ideas to suggest answers to questions.
Identify and classify findings.
Gather and record data to help in answering questions.</td><td>Observe, classify, characteristic</td></tr>
<tr><td>Assessment Outcomes</td><td colspan="2">Substantive
I know the names for parts of the plant
I know the names for parts of a tree.
I know the difference between evergreen and deciduous trees.
I know the name of common garden plants.
I know the names of common wild plants.</td><td>Disciplinary
I can classify plants based on different characteristics eg appearance.
I can observe how plants change over time.
I can use observations to answer questions.
I can use simple equipment safely.</td></tr>
<tr><td>Significant people/places</td><td colspan="3">Jane Colden- American botanist</td></tr>
</table>

Science Unit of Work **Year 1**			
Unit	**Prior learning (Retrieval)**	**Future learning**	**Common Misconceptions**
Seasons  	• Know the name of the four seasons. • Know that summer is a hot period and winter is a cold period.	• Measure and record changes in weather. (rainfall, wind strength).	• It only snows in Winter. • Flowers only grow in Spring and Summer.
National Curriculum Subject Content:	• observe changes across the 4 seasons • observe and describe weather associated with the seasons and how day length varies		
Knowledge:			**Key Vocabulary**
Intended Knowledge Substantive	1) Know that the weather changes across the four seasons. 2) Know what the weather is like in Autumn. 3) Know what the weather is like in Winter. 4) Know what the weather is like in Spring. 5) Know what the weather is like in Summer. 6) Know how day length changes throughout the seasons		Season, day length, spring, storm, summer, weather, winter, autumn.
Working Scientifically:	**Enquiry**	**Working Scientifically Objectives**	**Working Scientifically Vocabulary**
Disciplinary Knowledge:	Observation over time Keep a weather diary to compare weather across the year.	• I can use simple data answer questions.	Data, compare, observe
Assessment Outcomes	Substantive • I know the names of the seasons and know about the type of weather in each season. • I know about the changes in the seasons. • I know how day length varies across the seasons.		Disciplinary • I can identify and classify things. • I can explain to others what I have found out. • I can observe changes in seasons.
Significant people/places			