Lyng Curriculum Map for Science

	Autumn	Spring	Summer
Reception	Plants & Animals (R1.1) • Autumn trail. • Harvest time. • Listening walk. Prior Learning: N5, N7, N13, N14, N17, N20, N21, N24 Future Learning: R1.7, R1.11, R1.12, R1.14, R1.19, R1.23, 1.3, 1.5, 2.2, 2.3, 2.5, 3.1, 3.4, 4.3, 5.4, 6.2 Humans (R1.2) • What do I want to be when I grow up? • Identifying family members. • Comparisons between families. • Exploring the people who help us. Prior Learning: N2, N6, N15, N18, N22 Future Learning: R1.4, R1.8, R1.13, R1.16, R1.20, 1.3, 2.2, 3.1, 4.1, 5.4, 5.5, 6.3, 6.5 Weather / Seasons (R1.3) • Noticing seasonal change. Future Learning: 1.2, 1.4 & incidental learning in all year groups	Humans (R1.8) • Various Celebrations – Chinese New Year, Lent, Valentine's Day. Prior Learning: N2, N6, N15, N18, N22, R1.2, R1.4 Future Learning: R1.13, R1.16, R1.20, 1.3, 2.2, 3.1, 4.1, 5.4, 5.5, 6.3, 6.5 Space (R1.9) • Planetarium Visit / Virtual Experience. • Space • Cadet training. • Who was Neil Armstrong? • Looking at NASA. • The Solar System – planets. Prior Learning: N9, R1.5 Future Learning: 5.1 Weather / Seasons (R1.10) • Noticing seasonal change. Future Learning: 1.2, 1.4 & incidental learning in all year groups Animals (R1.11) • RSPB – Big School's Bird Watch. Prior Learning: N7, N14, N17, N21, R1.1 Future Learning: R1.14, R1.23, 1.3, 2.2, 2.3, 3.1, 4.3, 5.4, 6.2 Plants (R1.12) • Tree observation. Prior Learning: N5, N13, N20, N24, R1.1, R1.7 Future Learning: R1.14, R1.19, 1.5, 2.5, 3.4, 5.4, 6.2	Humans (R1.16) • Various celebrations – Ramadan, Eid. Prior Learning: N2, N6, N15, N18, N22, R1.2, R1.4, R1.8, R1.13 Future Learning: R1.20, 1.3, 2.2, 3.1, 4.1, 5.4, 5.5, 6.3, 6.5 Animals (Dinosaurs) (R1.17) • Dinosaur eggs. • Fossil hunt & creation. • Categorising dinosaurs. • Creating a timeline. • What is a palaeontologist? Prior Learning: - Future Learning: 6.3 Weather / Seasons (R1.18) • Noticing seasonal change. Future Learning: 1.2, 1.4 & incidental learning in all year groups Plants (R1.19) • Prepping flowerbeds and planting more plants. • How do things grow? • Tree observation. Prior Learning: N5, N13, N20, N24, R1.1, R1.7, R1.12, R1.14 Future Learning: 1.5, 2.5, 3.4, 5.4, 6.2
	Humans (R1.4) • Various celebrations – Bonfire Night, Christmas, Diwali, Hanukah, Remembrance Day, Black History Month. • Explore other children from around the world – cultures etc. Prior Learning: N2, N6, N15, N18, N22, R1.2 Future Learning: R1.8, R1.13, R1.16, R1.20, 1.3, 2.2, 3.1, 4.1, 5.4, 5.5, 6.3, 6.5 Space (R1.5) • World Space Week 4-10.10.26 Future Learning: Yearly event Weather / Seasons (R1.6) • Noticing seasonal change. Future Learning: 1.2, 1.4 & incidental learning in all year groups Plants (R1.7) • Leaf investigation. Prior Learning: N5, N13, N20, N24, R1.1 Future Learning: R1.12, R1.14, R1.19, 1.5, 2.5, 3.4, 5.4, 6.2	Humans (R1.13) • Various celebrations – Easter. Prior Learning: N2, N6, N15, N18, N22, R1.2, R1.4, R1.8 Future Learning: R1.16, R1.20, 1.3, 2.2, 3.1, 4.1, 5.4, 5.5, 6.3, 6.5 Plants & Animals (R1.14) • Notice changes in living things. • Building bug hotels. • Exploring our environment using our senses. • Prepping flowerbeds and planting seeds. • Polytunnel growing. • Life-cycles – frogs, butterflies, chickens. • Weather experiments. • Nature scavenger hunt. Prior Learning: N5, N7, N13, N14, N20, N21, R1.1, R1.7, R1.11, R1.12 Future Learning: R1.19, R1.23, 1.3, 1.5, 2.2, 2.3, 2.5, 3.1, 3.4, 4.3, 5.4, 6.2 Weather / Seasons (R1.15) • Noticing seasonal change. • Comment and explore weather and climate. • Make a weather station. Future Learning: 1.2, 1.4 & incidental learning in all year groups	Humans (R1.20) • Healthy eating week 10-14.06.26. • Transitions – How I've Grown. Prior Learning: N2, N6, N15, N18, N22, R1.2, R1.4, R1.8, R1.13, R1.16 Future Learning: 1.3, 2.2, 3.1, 4.1, 5.4, 5.5, 6.3, 6.5 Weather / Seasons (R1.21) • Noticing seasonal change. • Summer solstice. Future Learning: 1.2, 1.4 & incidental learning in all year groups Materials (R1.22) • Floating & Sinking • Testing materials and objects. Prior Learning: N4, N11, N23 Future Learning: 1.1, 2.1, 3.2, 4.2, 5.3 Animals (R1.23) • Minibeasts. • Life-cycles of a ladybird / caterpillar (butterfly). Prior Learning: N7, N14, N21, R1.1, R1.11, R1.14 Future Learning: 1.3, 2.2, 2.3, 3.1, 4.3, 5.4, 6.2

<table>
<tr><td rowspan="2">Year 1/2
A</td><td><u>Everyday Materials (1.1)</u>
Objects can be made from a variety of materials.
Everyday materials include wood, plastic, glass, metal, water, and rock.
Different materials have different physical properties.
DC1, DC4, DC5, DC7
Prior Learning: R1.22
Future Learning: 2.1, 3.2</td><td rowspan="2"><u>Animals (1.3)</u>
Animals can be grouped into fish, amphibians, reptiles, birds, and mammals by their structural features.
Animals can be grouped into carnivores, herbivores, and omnivores by the food they eat.
The human body is made of many different parts; each has its own function.
Humans have five senses: sight, hearing, touch, taste, and smell. Each sense uses different body parts.
DC1, DC4, DC5
Prior Learning: R1.1, R1.11
Future Learning: 2.2, 4.1, 4.3, 5.4, 6.2</td><td><u>Spring and Summer (1.4)</u>
There are four seasons—autumn, winter, spring, and summer.
Different types of weather are associated with different seasons.
Day length varies in different seasons.
DC4, DC5, DC6, DC7
Prior Learning: 1.2, incidental learning in all year groups
Future Learning: 3.3, 5.1, 6.1</td></tr>
<tr><td><u>Autumn and Winter (1.2)</u>
There are four seasons—autumn, winter, spring, and summer.
Different types of weather are associated with different seasons.
Day length varies in different seasons.
DC1, DC4, DC5, DC6, DC7
Prior Learning: Incidental learning in all year groups
Future Learning: 1.4, 3.3, 5.1, 6.1</td><td><u>Plants (1.5)</u>
A plant is a living thing.
The main parts of a plant are the stem, leaves, and roots.
Plants can be grown by people or grow in the wild.
DC3, DC4, DC5, DC6, DC7
Prior Learning: R1.1, R1.7, R1.12, 1.2, 1.4
Future Learning: 2.5, 3.4, 5.4, 6.2</td></tr>
<tr><td rowspan="2">Year 1/2
B</td><td><u>Uses of Materials (2.1)</u>
Everyday materials include wood, metal, plastic, glass, brick, rock, paper, and cardboard.
The material chosen to make an object or device is based on the suitability of its properties.
The shapes of solid objects made from some materials can be changed by squashing, bending, twisting, and stretching.
DC1, DC4, DC5, DC7
Prior Learning: R1.22, 1.1
Future Learning: 3.2, 4.2</td><td rowspan="2"><u>Habitats (2.3)</u>
Things can be living, dead, or never been alive.
Plants and animals live in a variety of habitats, including microhabitats.
Most living things live in habitats to which they are suited.
Habitats provide for the basic needs of different kinds of animals and plants.
The living things in a habitat depend on each other for survival.
Animals obtain their food from plants and other animals. This can be shown using a simple food chain.
DC1, DC4, DC5, DC7, DC8
Prior Learning: R1.1, R1.11, 1.3, 2.2
Future Learning: 2.4, 4.3</td><td><u>Protecting the Environment (2.4)</u>
Humans and their activities pose dangers to wildlife, through housing, traffic, waste, and pollution.
Where possible materials should be recycled to reduce landfill and pollution.
To ensure a sustainable supply of water and energy, these resources must be used efficiently.
Trees are a source of food, fuel, oxygen, and timber.
Trees provide a habitat for many animals.
DC1, DC4, DC5, DC6, DC7
Prior Learning: 2.2, 2.3
Future Learning: 4.3</td></tr>
<tr><td><u>Animals and Survival (2.2)</u>
Animals, including humans, have offspring which grow into adults.
The basic needs of animals, including humans, for survival include water, food, and air.
To remain healthy: it is important for humans to exercise, eat the right amounts of different types of food, and have good hygiene.
DC1, DC4, DC5, DC7
Prior Learning: R1.1, R1.11, 1.3
Future Learning: 4.1, 5.5, 6.2</td><td><u>Plants and Growth (2.5)</u>
Seeds and bulbs grow into mature plants.
Plants need water, light, and a suitable temperature to grow and stay healthy.
DC1, DC2, DC3, DC4, DC5, DC7
Prior Learning: R1.1, R1.7, R1.12, 1.5
Future Learning: 3.4, 5.4</td></tr>
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<tr><td rowspan="2">Year 3/4
A</td><td><u>Skeletons, Muscles and Nutrition (3.1)</u>
Animals, including humans, need the right types and amount of nutrition.
Animals cannot make their own food; they get nutrition from what they eat.
Humans and some other animals have skeletons and muscles for support, protection, and movement.
DC1, DC3, DC4, DC5, DC6, DC7
Prior Learning: 1.3
Future Learning: 4.1, 4.3, 6.5</td><td rowspan="2"><u>Light and Shadows (3.3)</u>
Light is needed to see things.
Darkness is the absence of light.
Light is reflected from surfaces.
Light from the sun can be dangerous, and eyes should be protected from sunlight.
Shadows are formed when the light from a light source is blocked by an opaque object.
There are patterns in the way that the size of shadows change.
DC1, DC3, DC4, DC5, DC7, DC8
Prior Learning: 1.4
Future Learning: 5.1, 6.1</td><td><u>Plants – Needs for Survival (3.4)</u>
Flowering plants have roots, a stem/trunk, leaves, and flowers.
Plants require air, light, water, nutrients from the soil, and room to grow.
Water is transported within plants in vessels.
Flowers play an important role in the life cycle of flowering plants, including pollination, seed formation, and seed dispersal.
DC1, DC4, DC5, DC7
Prior Learning: R1.1, R1.7, R1.12, 1.5, 2.5
Future Learning: 5.4, 6.2</td></tr>
<tr><td><u>Rocks and Fossils (3.2)</u>
Rocks can be grouped by their appearance and simple physical properties.
Fossils are formed when things that have lived are trapped within rock.
Soils are made from rocks and organic matter.
DC3, DC4, DC5, DC7
Prior Learning: -
Future Learning: 4.2, 6.3</td><td><u>Forces and Magnets (3.5)</u>
Objects experience different amounts of friction on different surfaces.
Some forces need contact between two objects, but magnetic forces can act at a distance.
Some materials are magnetic, meaning they are attracted to a magnet.
Magnets have two poles.
Magnets can attract or repel each other, depending on which poles are facing each other.
DC3, DC4, DC5, DC7, DC8
Prior Learning: -
Future Learning: 5.2</td></tr>
<tr><td rowspan="2">Year 3/4
B</td><td><u>Teeth and Digestion (4.1)</u>
The human digestive system contains a number of organs including the mouth, stomach, oesophagus, and intestines.
The main types of human teeth are incisors, canines, molars, and premolars. Each type of tooth looks different and has a different function.
DC1, DC2, DC3, DC4, DC5, DC7, DC8
Prior Learning: 1.3, 2.2, 3.1
Future Learning: 6.5</td><td rowspan="2"><u>Living Things and Environments (4.3)</u>
Living things can be grouped in a variety of ways.
Classification keys can be used to help group, identify and name living things.
Environments can change and this can sometimes pose dangers to living things.
DC1, DC3, DC4, DC5, DC6, DC7, DC8
Prior Learning: R1.1, R1.11, 1.3, 2.4, 3.1
Future Learning: 5.4, 6.2, 6.5</td><td><u>Sound (4.4)</u>
Sounds are made when something vibrates.
Vibrations from sounds travel through a medium to the ear.
The pitch of a sound is affected by how quickly an object vibrates.
The volume of a sound is determined by the strength of the vibrations that produced it.
Sounds get fainter as the distance from the sound source increase
DC2, DC3, DC4, DC5, DC7
Prior Learning: 4.2
Future Learning: KS3</td></tr>
<tr><td><u>States of Matter (4.2)</u>
Materials can be grouped according to whether they are solids, liquids, or gases.
Materials can change state when they are heated or cooled—this happens at different temperatures for different materials.
Evaporation and condensation are key processes in the water cycle.
Rate of evaporation is affected by temperature.
DC1, DC3, DC4, DC5, DC7, DC8
Prior Learning: R1.22, 1.1, 2.1, 3.2
Future Learning: 5.3</td><td><u>Electricity (4.5)</u>
Electricity (electrical current) flows through wires and is used to make devices and appliances work.
A circuit is a complete loop of wire which lets electricity flow.
A switch can change a circuit to be complete or incomplete, turning components on and off.
Adding more batteries to a circuit makes the light bulbs brighter.
Conductors are materials that allow electricity to pass through them.
A switch can be used in electrical appliances to turn on a component, such as a light, a buzzer, or motor.
DC3, DC4, DC5, DC7
Prior Learning: -
Future Learning: 6.4</td></tr>
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<tr>
<td rowspan="2">Year 5/6
A</td>
<td>Light (6.1)
• Light travels in straight lines.
• Objects are seen because they give out or reflect light into the eye.
• We see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes.
• As light travels in straight lines shadows have the same shape as the objects that cast them.
• DC1, DC2, DC3, DC4, DC5, DC7
Prior Learning: 3.3
Future Learning: 5.1, KS3</td>
<td rowspan="2">Evolution and Inheritance (6.3)
• Living things have changed over time.
• Fossils provide information about living things that inhabited Earth millions of years ago.
• Living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents.
• Animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.
• DC1, DC2, DC3, DC4, DC5, DC6, DC7
Prior Learning: 1.3, 2.2, 3.2, 3.4, 4.3
Future Learning: 5.5, KS3
:</td>
<td>Electricity (6.4)
• The brightness of a lamp or the volume of a buzzer is associated with the number and voltage of cells used in the circuit.
• Switches can be used to turn components on and off in a circuit.
• Circuit symbols are used when representing a simple circuit in a diagram.
• DC3, DC4, DC5, DC7
Prior Learning: 4.5
Future Learning: KS3</td>
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<td>Classification (6.2)
• Living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants, and animals.
• DC1, DC4, DC6, DC7
Prior Learning: 1.3, 2.3, 3.2, 4.3
Future Learning: 6.3, KS3</td>
<td>Circulatory System and Lifestyle (6.5)
• The main parts of the human circulatory system include the heart, blood vessels, and blood.
• Nutrients and water are transported within animals, including humans, in the blood.
• Diet, exercise, drugs, and lifestyle can all affect the way our bodies function.
• DC2, DC3, DC4, DC5, DC6, DC7, DC8
Prior Learning: 2.2, 3.1, 4.1, 4.3
Future Learning: KS3</td>
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<td rowspan="2">Year 5/6
B</td>
<td>Earth and Space (5.1)
• Earth and other planets in the Solar System orbit around the Sun.
• The Moon orbits round Earth.
• The Sun, Earth, and the Moon are approximately spherical bodies.
• The rotation of Earth results in day and night, and the apparent movement of the Sun across the sky.
• DC4, DC5, DC6, DC7, DC8
Prior Learning: 3.3
Future Learning: 6.1, KS3</td>
<td rowspan="2">Materials (5.3)
• The properties of materials include their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets.
• The particular uses of everyday materials, including metals, wood, and plastic depend on their properties.
• Some materials will dissolve in liquid to form a solution.
• Mixtures can be separated using filtering, sieving, and evaporating.
• Dissolving, mixing, and changes of state are reversible changes.
• Changes that result in the formation of new materials are not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda.
• DC2, DC3, DC4, DC5, DC6, DC7
Prior Learning: R1.22, 1.1, 2.1, 4.2
Future Learning: KS3</td>
<td>Life Cycles (5.4)
• There are differences in the life cycles of mammals, amphibians, insects, and birds.
• Plants and animals produce offspring by the life process of reproduction.
• DC1, DC4, DC5
Prior Learning: R1.1, R1.11, 1.3, 2.2, 3.4, 4.3, 6.2
Future Learning: 5.5, KS3</td>
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<td>Forces (5.2)
• Unsupported objects fall towards Earth because of the force of gravity acting between Earth and the falling object.
• Air resistance, water resistance, and friction act between moving surfaces.
• Some mechanisms including levers, pulleys, and gears allow a smaller force to have a greater effect.
• DC1, DC2, DC3, DC4, DC5, DC7, DC8
Prior Learning: 3.5
Future Learning: KS3:</td>
<td>Growing Older (5.5)
• Humans experience a number of changes as they develop to old age.
• DC1, DC5, DC7
Prior Learning: 2.2, 4.3, 5.4, 6.3
Future Learning: KS3</td>
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The disciplinary concepts we focus on in KS1 and KS2 are:

DC1: Ask relevant questions and use different types of scientific enquiries to answer them.
DC2: Plan simple scientific enquiries.
DC3: Use a range of equipment.
DC4: Make careful observations.
DC5: Record findings using simple scientific language, drawings, and labelled diagrams.
DC6: Present data.
DC7: Use results to draw simple conclusions and make predictions. Report on findings from enquiries, including oral and written explanations.
DC8: Use models to represent a scientific concept or process.