



# Science Long Term Overview- Reception

## Understanding the World



### Autumn 1

#### Autumn Leaves are Falling Down

- Living Things and Their Habitats
  - Animals excluding Humans
  - Seasonal Changes

DM Objectives	Overview	Encouraging Scientific Enquiry
<ul style="list-style-type: none"> <li>• Draw information from a simple map.</li> <li>• Explore the natural world around them.</li> <li>• Describe what they see, hear and feel whilst outside.</li> <li>• Recognise some environments that are different to the one in which they live.</li> <li>• Understand the effect of changing seasons on the natural world around them.</li> </ul>	<ul style="list-style-type: none"> <li>• Encourage children to name and describe animals that live in different habitats while reading books, watching videos, looking at pictures or playing matching games.</li> <li>• Encourage children to ask questions about different animals and the habitats they live in.</li> <li>• Encourage children to describe habitats.</li> <li>• Encourage children to talk about how animals are cared for when they live outside their natural habitat.</li> <li>• Support children to identify different plants e.g. trees, bushes, flowers, vegetables, herbs.</li> <li>• Ensure children are careful when exploring the plants and do not damage them in any way.</li> <li>• Encourage children to touch and smell the plants, when appropriate.</li> </ul>	<p><u>Classification</u></p> <ul style="list-style-type: none"> <li>• Sort animals according to where they live.</li> <li>• Name and describe plants and animals they find in the school grounds.</li> </ul> <p><u>Researching using secondary sources</u></p> <ul style="list-style-type: none"> <li>• Learn how animals from a different habitat are cared for.</li> <li>• Learn about animals in a different habitat.</li> </ul> <p><u>Pattern seeking</u></p> <ul style="list-style-type: none"> <li>• Look for minibeasts in different areas of the school grounds.</li> <li>• Look for plants in different areas of the school grounds</li> </ul>



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- Encourage children to talk about the plants they find.
- Support children to name the plants they find.
- Encourage children to find the same plant in a different place.
- Encourage children to talk about how they feel in different types of weather/seasons.
- Encourage children to talk about the clothes they wear in different seasons and why.
- Encourage children to talk about the weather throughout the year.
- Encourage children to find shelter or make shelters to keep themselves dry in the rain or shade themselves when it is sunny.
- Encourage children to talk about how the ground changes when it rains.
- Encourage children to measure the size of puddles using their feet after it rains.
- Encourage children to talk about how puddles change over time after it rains.
- Encourage children to talk about the animals and plants that they find in different seasons.
- Encourage children to ask questions about the weather and seasonal changes.

### Classification

Which clothes are suitable for each season?

### Observing over time

How does a puddle change over time?

How does a snowman change as it melts?

How does the natural world change with the seasons?

### Researching using secondary sources

Find out about how animals behave in different seasons.

Find out about the weather and seasons.



# Science Long Term Overview- Reception

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### Autumn 2

### Keep Me Posted

### •Humans

DM Objectives	Overview	Encouraging Scientific Enquiry
<ul style="list-style-type: none"> <li>•Explore the natural world around them.</li> <li>•Describe what they see, hear and feel whilst outside.</li> <li>•Talk about members of their immediate family and community.</li> <li>•Name and describe people who are familiar to them</li> </ul>	<ul style="list-style-type: none"> <li>• Encourage children to look at photographs of different people and to describe them.</li> <li>• Encourage children to describe their friends and family using photographs to help them.</li> <li>• Encourage children to talk about how their friends and family are the same and different.</li> <li>• Encourage children to compare themselves to characters in books.</li> <li>• Encourage children to compare their hand, foot and fingerprints with their friends.</li> <li>• Encourage children to talk about the people who look after them, both within their family and the wider community e.g. teachers, doctors, dentists etc.</li> <li>• Encourage children to ask a dentist, nurse, meal supervisor/school cook, road crossing supervisor etc. questions</li> </ul>	<p><u>Classification</u></p> <ul style="list-style-type: none"> <li>• Sort images of people according to their characteristics.</li> </ul> <p><u>Researching using secondary sources</u></p> <ul style="list-style-type: none"> <li>• Find out information from visitors (dentist, nurse etc.).</li> </ul> <p><u>Pattern seeking</u></p> <ul style="list-style-type: none"> <li>•Are taller children faster? • Are taller children stronger?</li> </ul>



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## Understanding the World



### Spring 1

### Explorers

- **Materials, including changing materials**
- **Forces**

DM Objectives	Overview	Encouraging Scientific Enquiry
<ul style="list-style-type: none"> <li>• Explore the natural world around them.</li> <li>• Describe what they see, hear and feel whilst outside.</li> </ul>	<ul style="list-style-type: none"> <li>• Encourage children to talk about the natural materials they explore, using their senses.</li> <li>• Encourage children to talk about the materials they are using when making pictures.</li> <li>• Encourage children to choose from a range of materials, including natural materials, when making models and identify a key property that was required.</li> <li>• Encourage children to reuse materials and talk about what can be recycled to care for the natural world.</li> <li>• Support children to list the properties the material has.</li> <li>• Encourage children to test that their model is fit for purpose and that the materials are suitable.</li> </ul>	<p><u>Comparative testing</u></p> <ul style="list-style-type: none"> <li>• How does popcorn made in a microwave compare to popcorn made on a fire?</li> <li>• How quickly do ice cubes melt in different areas of the playground?</li> <li>• How are pizza bases different when made with different flours?</li> <li>• How does a loaf cook differently in different tins?</li> <li>• How do cupcakes cook if they have different amounts of mixture?</li> </ul> <p><u>Comparative testing</u></p> <ul style="list-style-type: none"> <li>• How many cubes/small plastic animals can fit in different 'boats'?</li> <li>• Compare how cars move down ramps/gutters.</li> <li>• Compare how wheels turn when sand or water is poured through.</li> <li>• Compare how objects fall.</li> <li>• Compare how objects fall with and without parachutes.</li> </ul>



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- Encourage children to compare and describe how materials change over time and in different conditions.
- Encourage children to talk about how they changed objects to make them float or sink.
- Encourage children to count and record how small objects different 'boats' can hold before they sink.
- Encourage children to talk about how they changed how the cars rolled down ramps/gutters.
- Encourage children to talk about what happened when they poured sand/water through wheels and down gutters and how they changed this.

- Compare how different balls bounce.
- Compare how things move when blown.
- Compare how a marble moves through different liquids.
- Compare how different paper aeroplanes fly.

### Observing over time

- How does the block of ice change over time?
- How does a snowman change over time?
- How does cake mixture/bread dough change as it is cooked?



# Science Long Term Overview- Reception

## Understanding the World



### Spring 2

### Spring Has Sprung

- Living Things and Their Habitats
- Animals excluding Humans

DM Objectives	Overview	
<ul style="list-style-type: none"> <li>• Draw information from a simple map.</li> <li>• Explore the natural world around them.</li> <li>• Describe what they see, hear and feel whilst outside.</li> <li>• Recognise some environments that are different to the one in which they live.</li> </ul>	<ul style="list-style-type: none"> <li>• Support children to identify different plants e.g. trees, bushes, flowers, vegetables, herbs.</li> <li>• Ensure children are careful when exploring the plants and do not damage them in any way.</li> <li>• Encourage children to touch and smell the plants, when appropriate.</li> <li>• Encourage children to talk about the plants they find.</li> <li>• Support children to name the plants they find.</li> <li>• Encourage children to find the same plant in a different place.</li> <li>• Ensure children are careful when observing minibeasts and return them to where they found them.</li> <li>• Encourage children to talk about the minibeasts they find.</li> <li>• Support children to name the minibeasts they find.</li> </ul>	<p><u>Classification</u></p> <ul style="list-style-type: none"> <li>• Sort animals according to where they live.</li> <li>• Name and describe plants and animals they find in the school grounds.</li> </ul> <p><u>Researching using secondary sources</u></p> <ul style="list-style-type: none"> <li>• Learn how animals from a different habitat are cared for.</li> <li>• Learn about animals in a different habitat.</li> </ul> <p><u>Pattern seeking</u></p> <ul style="list-style-type: none"> <li>• Look for minibeasts in different areas of the school grounds.</li> <li>• Look for plants in different areas of the school grounds</li> </ul>



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|  | <ul style="list-style-type: none"><li>• Encourage children to name and describe animals that live in different habitats while reading books, watching videos, looking at pictures or playing matching games.</li><li>• Encourage children to ask questions about different animals and the habitats they live in.</li><li>• Encourage children to describe habitats.</li><li>• Encourage children to talk about how animals are cared for when they live outside their natural habitat.</li><li>• Encourage children to move like different animals.</li></ul> |  |
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### Summer 1

### Superheroes

- Humans

DM objectives	Overview	Encouraging Working Scientifically
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# Science Long Term Overview- Reception

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### Summer 2

#### Beside the Seaside, Beside the Sea

- Animals excluding humans
- Living things and their habitats

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Throughout the Year <u>Seasonal Changes</u>		
DM objectives	Overview	Encouraging Scientific Enquiry
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