

Science – Year 1		
Autumn	Spring	Summer

Working Scientifically**Planning and predicting**

- I am learning to suggest what might happen and ways to test my ideas.
- Investigating and observing
- I am learning to make observations using appropriate senses.
- I am learning to explore using my five senses

Recording, analysing and evaluating

- I am learning to communicate findings in simple ways.
- I am learning to collect evidence to try to answer a question.

Seasonal Changes

- I am learning to explain changes through autumn, winter, spring and summer.
- I am learning to describe the weather in autumn, winter, spring and summer and the days get longer and shorter.

Working Scientifically**Planning and predicting**

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Recording, analysing and evaluating

- I am learning to communicate findings in simple ways.
- I am learning to collect evidence to try to answer a question.

Materials

- I am learning to tell the difference between an object and the material from which it is made.
- I am learning to name a variety of everyday materials including wood, plastic, glass, metal, water and rock.

Seasonal Changes

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- I am learning to describe the weather in autumn, winter, spring and summer and the days get longer and shorter.

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Recording, analysing and evaluating

- I am learning to communicate findings in simple ways.
- I am learning to collect evidence to try to answer a question.

Plants

- I am learning to name some common wild and garden plants, including deciduous and evergreen trees.
- I am learning to name and describe the basic structure of a variety of common flowering plants, including trees.
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Animals, including humans

- I learning to spot and name a variety of common animals.
- I am learning to spot and name a variety of common animals that are carnivores, herbivores and omnivores.
- I am learning to describe and compare the structure of a variety of common animals.
- I am learning to name, draw and label the basic parts of the human body.
- I am learning to say which part of the body is to do with each sense.
- I am learning to describe some everyday materials.
- I am learning to make groups of materials based on what they are like.

Seasonal Changes

- I am learning to explain changes through autumn, winter, spring and summer.
- I am learning to describe the weather in autumn, winter, spring and summer and the days get longer and shorter.

Science – Year 2

Autumn	Spring	Summer
<p>Working Scientifically</p> <p>Planning and Predicting</p> <ul style="list-style-type: none"> I am learning, with help, to suggest some ideas and questions. I am learning to think about how to collect evidence I am learning to suggest what might happen. I am learning to think about and discuss whether comparisons and tests are fair or unfair. <p>Investigating and observing</p> <ul style="list-style-type: none"> I am learning to make observations and comparisons using simple equipment, following simple instructions. I am learning to use first- hand experience and, with help, simple information sources to answer questions. <p>Recording, analysing and evaluating</p> <ul style="list-style-type: none"> I am learning to record findings in simple ways including tables, graphs and charts. I am learning to say whether what happened was what was expected and draw simple conclusions. <p>Animals, including humans</p> <ul style="list-style-type: none"> I am learning to explain that animals, including humans, have babies which grow into adults. I am learning to explain the needs of animals, including humans, for survival. I am learning to explain the importance of exercise, eating healthily and keeping clean. 	<p>Working Scientifically</p> <p>Planning and Predicting</p> <ul style="list-style-type: none"> I am learning, with help, to suggest some ideas and questions. I am learning to think about how to collect evidence I am learning to suggest what might happen. I am learning to think about and discuss whether comparisons and tests are fair or unfair. <p>Investigating and observing</p> <ul style="list-style-type: none"> I am learning to make observations and comparisons using simple equipment, following simple instructions. I am learning to use first- hand experience and, with help, simple information sources to answer questions. <p>Recording, analysing and evaluating</p> <ul style="list-style-type: none"> I am learning to record findings in simple ways including tables, graphs and charts. I am learning to say whether what happened was what was expected and draw simple conclusions. <p>Materials</p> <ul style="list-style-type: none"> I am learning to say why I would choose a material for a particular job. I am learning to explain how objects are made from some materials can be changed. 	<p>Working Scientifically</p> <p>Planning and Predicting</p> <ul style="list-style-type: none"> I am learning, with help, to suggest some ideas and questions. I am learning to think about how to collect evidence I am learning to suggest what might happen. I am learning to think about and discuss whether comparisons and tests are fair or unfair. <p>Investigating and observing</p> <ul style="list-style-type: none"> I am learning to make observations and comparisons using simple equipment, following simple instructions. I am learning to use first- hand experience and, with help, simple information sources to answer questions. <p>Recording, analysing and evaluating</p> <ul style="list-style-type: none"> I am learning to record findings in simple ways including tables, graphs and charts. I am learning to say whether what happened was what was expected and draw simple conclusions. <p>Living things and their habitats</p> <ul style="list-style-type: none"> I am learning to explain the differences between things that are living, dead and things that have never been alive. I am learning to explain that most living things live in habitats which suit them and depend on each other. I am learning to name some plants and animals in their habitats including micro-habitats. I am learning to explain how animals get their food from plants and other animals using a simple food chain. <p>Plants</p> <ul style="list-style-type: none"> I am learning to explain how seeds and bulbs grow into plants. I am learning to describe how plants need water, light and suitable temperature to grow and stay healthy.

Science – Year 3		
Autumn	Spring	Summer

Working Scientifically

Planning and Predicting

- I am learning to respond to suggestions and with help put forward ideas about testing.
- I am learning to make predictions.
- I am learning, with help, to consider what constitutes a fair test.
- I am learning, with help, to plan and carry out a fair test.

Investigating and observing

- I am learning to make observations and comparisons.
- I am learning to measure length, volume of liquid in standard measures using simple measuring equipment.
- I am learning to use first- hand experience and simple information sources to answer questions.

Recording, analysing and evaluating

- I am learning to communicate findings in a variety of ways.
- I am learning to say whether what happened was what was expected

Forces and magnets

- I am learning to compare how things move on different surfaces.
- I am learning to understand that some forces need contact between two objects but magnetic forces can act at a distance.
- I am learning to observe how magnets attract or repel each other and attract some materials and not others.
- I am learning to compare and group some materials on the basis of whether they are attracted to a magnet and identify some magnetic materials.
- I am learning to describe magnets as having two poles.
- I am learning to predict whether two magnets will attract or repel each other

Rocks

- I am learning to examine and do practical experiments on various types of rocks in order to group them on the basis of their appearance and simple physical properties.
- I am learning to simply describe how fossils are formed when things that have lived are trapped within a rock.
- I am learning to explain that soils are made from rocks and organic matter.

Working Scientifically

Planning and Predicting

- I am learning to respond to suggestions and with help put forward ideas about testing.
- I am learning to make predictions.
- I am learning, with help, to consider what constitutes a fair test.
- I am learning, with help, to plan and carry out a fair test.

Investigating and observing

- I am learning to make observations and comparisons.
- I am learning to measure length, volume of liquid in standard measures using simple measuring equipment.
- I am learning to use first- hand experience and simple information sources to answer questions.

Recording, analysing and evaluating

- I am learning to communicate findings in a variety of ways.
- I am learning to say whether what happened was what was expected

Animals, including humans

- I am learning to identify that animals, including humans, need the right type s and amounts of nutrition.
- I am learning that animals, including humans, get nutrition from what they eat.
- I am learning to explain why humans and some other animals have skeletons and muscles.

Planning and Predicting

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- I am learning to make predictions.
- I am learning, with help, to consider what constitutes a fair test.
- I am learning, with help, to plan and carry out a fair test.

Investigating and observing

- I am learning to make observations and comparisons.
- I am learning to measure length, volume of liquid in standard measures using simple measuring equipment.
- I am learning to use first- hand experience and simple information sources to answer questions.

Recording, analysing and evaluating

- I am learning to communicate findings in a variety of ways.
- I am learning to say whether what happened was what was expected

Light

- I am learning to explain that I need light in order to see things and that dark is the absence of light.
- I am learning to show that light is reflected from surfaces.
- I am learning to explain that light from the sun can be dangerous and that there are ways to protect eyes.
- I am learning to show how shadows are formed when the light from a light source is blocked by a solid object.
- I am learning to show that there are patterns in the way that the size of shadows change.

Plants

- I am learning to explain what different parts of flowering plants do.
- I am learning to explore the requirements of plants for life and growth and how they vary from plant to plant.
- I am learning to investigate the way in which water is transported within plants.
- I am learning to explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.
- depending on which poles are facing.

Science – Year 4		
Autumn	Spring	Summer

Working Scientifically**Planning and Predicting**

- I am learning to recognise why it is important to collect data and answer questions.
- I am learning to suggest questions that can be tested
- I am learning to put forward ideas about testing and make predictions.
- I am learning, with help, to consider what constitutes a fair test.

Investigating and observing

- I am learning to make relevant observations and comparisons
- I am learning to make measurements of temperature, time and forces as well as measurements of length.
- I am learning to begin to think about why measurements of length should be repeated.
- I am learning, with help, to carry out a fair test recognising and explaining why it is fair.

Recording, analysing and evaluating

- I am learning to explain what the evidence shows in a scientific way and whether it supports predictions.
- I am learning to suggest improvements in their work.

States of Matter

- I am learning to group materials together, according to whether they are solids, liquids or gases, including gels, foams, mists and pastes.
- I am learning to demonstrate and explain that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius.

Working Scientifically**Planning and Predicting**

- I am learning to recognise why it is important to collect data and answer questions.
- I am learning to suggest questions that can be tested
- I am learning to put forward ideas about testing and make predictions.
- I am learning, with help, to consider what constitutes a fair test.

Investigating and observing

- I am learning to make relevant observations and comparisons
- I am learning to make measurements of temperature, time and forces as well as measurements of length.
- I am learning to begin to think about why measurements of length should be repeated.
- I am learning, with help, to carry out a fair test recognising and explaining why it is fair.

Recording, analysing and evaluating

- I am learning to explain what the evidence shows in a scientific way and whether it supports predictions.
- I am learning to suggest improvements in their work.

Electricity

- I am learning to talk about common appliances that run on electricity.
- I am learning to construct and draw with labels a simple series electrical circuit which includes cells, wires, bulbs, switches and buzzers.
- I am learning to predict if a lamp will light or not in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery.
- I am learning to explain that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit.
- I am learning to show that some materials are conductors and some are insulators, and can explain that metals are good conductors.

Working Scientifically**Planning and Predicting**

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Investigating and observing

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- I am learning to make measurements of temperature, time and forces as well as measurements of length.
- I am learning to begin to think about why measurements of length should be repeated.
- I am learning, with help, to carry out a fair test recognising and explaining why it is fair.

Recording, analysing and evaluating

- I am learning to explain what the evidence shows in a scientific way and whether it supports predictions.
- I am learning to suggest improvements in their work.

Living things and their habitats

- I am learning to show that living things can be grouped together in various ways.
- I am learning to explore and use classification keys to help group, identify and name a variety of living things.
- I am learning to explain that environments can change and that this sometimes means that living things are put in danger.
- I am learning to explain how sounds are made, and show that some of them are linked to vibrations.
- I am learning to explain that vibrations from sounds travel through a medium to the ear.
- I am learning to find patterns between the pitch of a sound and features of the objects that produce it.
- I am learning to show that there is a pattern between the volume of a sound and the strength of the vibrations that

Science – Year 5		
Autumn	Spring	Summer

Working Scientifically

Planning and Predicting

- I am learning to recognise that scientific ideas are based on evidence and creative thinking.
- I am learning to make predictions based on scientific ideas
- I am learning to suggest methods of testing including a fair test.
- I am learning to suggest how to collect evidence.
- I am learning to select suitable equipment.

Investigating and observing

- I am learning to carry out a fair test explaining why it is fair.
- I am learning to understand why observations and measurements need to be repeated.
- I am learning to select information from provided sources.

Recording, analysing and evaluating

- I am learning to communicate findings in a variety of ways.
- I am learning to identify simple trends and patterns.
- I am learning to communicate findings in the tables, bar charts and lines graphs, whilst making appropriate use of ICT.
- I am learning to identify trends and patterns and offer explanations for these.
- I am learning to draw conclusions and communication them in appropriate scientific language.
- I am learning to suggest improvements in their work giving reasons.

Materials

- I am learning to compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal) and response to magnets.
- I am learning to explain that some materials will dissolve in liquid to form a solution and describe how to recover a substance from a solution.

Planning and Predicting

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- I am learning to make predictions based on scientific ideas
- I am learning to suggest methods of testing including a fair test.
- I am learning to suggest how to collect evidence.
- I am learning to select suitable equipment.

Investigating and observing

- I am learning to carry out a fair test explaining why it is fair.
- I am learning to understand why observations and measurements need to be repeated.
- I am learning to select information from provided sources.

Recording, analysing and evaluating

- I am learning to communicate findings in a variety of ways.
- I am learning to identify simple trends and patterns.
- I am learning to communicate findings in the tables, bar charts and lines graphs, whilst making appropriate use of ICT.
- I am learning to identify trends and patterns and offer explanations for these.
- I am learning to draw conclusions and communication them in appropriate scientific language.
- I am learning to suggest improvements in their work giving reasons.

Animals, including humans

- I am learning to describe the changes as humans develop into old age.

Living things and their habitats

- I am learning to describe the differences in the life cycles of a mammal, an amphibian an insect and a bird.
- I am learning to describe how some animals and plants reproduce.

Working Scientifically

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Investigating and observing

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Recording, analysing and evaluating

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- I am learning to identify trends and patterns and offer explanations for these.
- I am learning to draw conclusions and communication them in appropriate scientific language.
- I am learning to suggest improvements in their work giving reasons.

Earth and Space

- I am learning to describe the movement of Earth, and other planets, relative to the Sun in the solar system.
- I am learning to describe the movement of the Moon relative to the Earth.
- I am learning to describe the Sun, Earth and Moon as approximately spherical bodies.

Science – Year 6

Autumn

Spring

Summer

Working Scientifically**Planning and Predicting**

- I am learning to consider how scientists have combined evidence from observation and measurement with creative thinking to suggest new ideas and explanations for phenomena.
- I am learning to make predictions based on scientific knowledge and understanding.
- I am learning to suggest methods of testing including a fair test and how to collect evidence, ensuring it is sufficient and appropriate.

Investigating and observing

- I am learning to carry out a fair test, identifying key factors to be considered.
- I am learning to make a variety of relevant observations and measurements using simple apparatus correctly.
- I am learning to decide when observations and measurements need to be checked by repeating, to give more reliable data.
- I am learning to select information from a range of sources.

Recording, analysing and evaluating

- I am learning to communicate findings in tables, bar charts, and line graphs, while making appropriate use of ICT.
- I am learning to identify trends and patterns and results that do not appear to fit the pattern.
- I am learning to provide explanations for the differences in observations and measurements.
- I am learning to draw conclusions and communicate them in appropriate scientific language.
- I am learning to make practical suggestions for improving methods in my work giving suggestions.

Animals, including humans

- I am learning to identify and name the main parts of the human circulatory system.
- I am learning to describe the functions of the heart, blood vessels and blood.
- I am learning to recognise the impact of diet,

Working Scientifically**Planning and Predicting**

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Investigating and observing

- I am learning to carry out a fair test, identifying key factors to be considered.
- I am learning to make a variety of relevant observations and measurements using simple apparatus correctly.
- I am learning to decide when observations and measurements need to be checked by repeating, to give more reliable data.
- I am learning to select information from a range of sources.

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- I am learning to identify trends and patterns and results that do not appear to fit the pattern.
- I am learning to provide explanations for the differences in observations and measurements.
- I am learning to draw conclusions and communicate them in appropriate scientific language.
- I am learning to make practical suggestions for improving methods in my work giving suggestions.

Electricity

- I am learning to show that the brightness of a lamp or the volume of a buzzer depends on the voltage of cells used in the circuit.
- I am learning to compare and give reasons for

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- I am learning to select information from a range of sources.

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- I am learning to communicate findings in tables, bar charts, and line graphs, while making appropriate use of ICT.
- I am learning to identify trends and patterns and results that do not appear to fit the pattern.
- I am learning to provide explanations for the differences in observations and measurements.
- I am learning to draw conclusions and communicate them in appropriate scientific language.
- I am learning to make practical suggestions for improving methods in my work giving suggestions.

Light

- I am learning to show that light appears to travel in straight lines and that objects are seen because they give out or reflect light into the eye.
- I am learning to demonstrate and explain that we

