

## Knowledge and Skills Progression

Subject area: Science - Working Scientifically

During years 1 and 2, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content:

- asking simple questions and recognising that they can be answered in different ways
- observing closely, using simple equipment
- performing simple tests
- identifying and classifying
- using their observations and ideas to suggest answers to questions
- gathering and recording data to help in answering questions.

## National Curriculum Statements

During years 3 and 4, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content:

- asking relevant questions and using different types of scientific enquiries to answer them
- setting up simple practical enquiries, comparative and fair tests
- making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers
- gathering, recording, classifying and presenting data in a variety of ways to help in answering questions
- recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables
- reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions
- using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions
- identifying differences, similarities or changes related to simple scientific ideas and processes
- using straightforward scientific evidence to answer questions or to support their findings.

During years 5 and 6, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content:

- planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary
- taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate
- recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs
- using test results to make predictions to set up further comparative and fair tests
- reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations
- identifying scientific evidence that has been used to support or refute ideas or arguments.

## These skills will be taught through the following topics:

KS1- Animals including humans, Everyday materials, plants and seasonal change.

LKS2 – Animals including humans, Sound, Electricity, Rocks, Living things and their habitats, Forces and magnets, States of matter, Plants and Light.

UKS2 – Animals including humans, Forces, Evolution and Inheritance, Living things and their habitats, Electricity, Properties and changes of material, Earth and beyond and Light.

Knowledge & Skills	EYFS	<b>Year 1</b> (KS1 skills)	<b>Year 2</b> (KS1 skills)	<b>Year 3</b> (Lower KS2 skills)	<b>Year 4</b> (Lower KS2 skills)	Year 5 (Upper KS2 skills)	<b>Year 6</b> (Upper KS2 skills)
Working Scientifically	Learning Goals	To use the following practical scientific methods, processes and skills (adult support may be needed) —	To use the following practical scientific methods, processes and skills with increasing confidence	To use the following practical scientific methods, processes and skills –	To use the following practical scientific methods, processes and skills –	To use the following practical scientific methods, processes and skills –	To use the following practical scientific methods, processes and skills –
Questioning and enquiring Planning	Understanding the World - The Natural World - ELG: Explore the natural world around them, making observations and drawing pictures of animals and plants. Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class. Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.	Ask simple questions about the world around us.  Begin to recognise that they can be answered in different ways (different types of enquiry including - observing changes over time, noticing patterns, grouping, and classifying, carrying out simple comparative tests, finding things out from secondary sources).  To ask a few simple questions about the world around us.  To begin to use some different types of enquiry to answer questions.	Ask questions about the world around us.  Recognise that they can be answered in different ways (different types of enquiry including - observing changes over time, noticing patterns, grouping and classifying, carrying out simple comparative tests, finding things out from secondary sources).  To ask simple questions about the world around us.  To begin to use different types of enquiry to answer questions.	Ask some relevant questions and use different types of scientific enquiries to answer them.  Begin to explore everyday phenomena and the relationships between living things and familiar environments. Begin to develop their ideas about functions, relationships and interactions.  Begin to raise their own questions about the world around them.  Begin to make some decisions about which types of enquiry will be the best way of answering questions including observing changes over time, noticing patterns, grouping and classifying, carrying out simple comparative and fair tests, finding things out using secondary sources.  To ask some relevant questions about the world around us.  To use some different types of scientific enquiry to answer questions.  To beginning to decide which type of enquiry is best to answer my question.	Ask relevant questions and use different types of scientific enquiries to answer them.  Explore everyday phenomena and the relationships between living things and familiar environments.  Begin to develop their ideas about functions, relationships and interactions.  Raise their own questions about the world around them.  Make some decisions about which types of enquiry will be the best way of answering questions including observing changes over time, noticing patterns, grouping and classifying, carrying out simple comparative and fair tests, finding things out using secondary sources.  To ask relevant questions about the world around us.  To use different types of scientific enquiry to answer questions.  To beginning to decide which type of enquiry is best to answer my questions.	Begin to plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.  Begin to explore and talk about ideas, ask their own questions about scientific phenomena, analyse functions, relationships and interactions more systematically.  Begin to recognise some more abstract ideas and begin to recognise how these ideas help them to understand how the world operates. Begin to recognise scientific ideas change and develop over time.  Begin to select the most appropriate ways to answer science questions using different types of scientific enquiry (including observing changes over different periods of time, noticing patterns, grouping and classifying, carrying out comparative and fair tests and finding things out using a wide range of secondary sources of information.)  To beginning to explore ideas and ask my own questions about scientific phenomena.  To beginning to plan different types of scientific enquiry to answer questions.  To beginning to decide which variables to control.	Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.  Explore and talk about ideas, ask their own questions about scientific phenomena, analyse functions, relationships and interactions more systematically.  Begin to recognise more abstract ideas and begin to recognise how these ideas help them to understand how the world operates.  Begin to recognise scientific ideas change and develop over time.  Select the most appropriate ways to answer science questions using different types of scientific enquiry (including observing changes over different periods of time, noticing patterns, grouping and classifying, carrying out comparative and fair tests and finding things out using a wide range of secondary sources of information.)  To explore ideas and ask my own questions about scientific enquiry to answer questions.  To decide which variables to control

Skill	EYFS	standard units eg, mm, cm, m, ml, l, °C  To use some simple equipment eg hand lenses, egg timers.  To begin to notice patterns.  Year 1 (KS1 skills)	To beginning to notice patterns.  Year 2 (KS1 skills)	To decide which equipment to use and can use new equipment eg. data loggers.  To look for patterns and relationships  Year 3 (Lower KS2 skills)	To decide what to observe and how long to collect observations.  To take accurate measurements using standard units eg. mm, cm, m, ml, l, °C, seconds, minutes,  To decide which equipment to use and can use new equipment eg. data loggers.  To look for patterns and relationships.  Year 4  (Lower KS2 skills)	To take accurate and precise measurements using standard units N, g, kg, mm, cm, mins, seconds, cm²V, km/h, m per sec, m/ sec.  To select equipment on my own and can explain how to use it accurately  Year 5 (Upper KS2 skills)	To make accurate and precise measurements.  To decide what to observe, how long to observe for and whether to repeat them.  To take accurate and precise measurements using standard units N, g, kg, mm, cm, mins, seconds, cm²V, km/h, m per sec, m/ sec.  To select equipment on my own and can explain how to use it accurately.  Year 6 (Upper KS2 skills)
		cm, m, ml, l, °C  To use some simple equipment eg hand lenses, egg timers.  To begin to notice patterns.	patterns.	can use new equipment eg. data loggers. To look for patterns and relationships	To decide what to observe and how long to collect observations.  To take accurate measurements using standard units eg. mm, cm, m, ml, l, °C, seconds, minutes,  To decide which equipment to use and can use new equipment eg. data loggers.  To look for patterns and relationships.	measurements using standard units N, g, kg, mm, cm, mins, seconds, cm²V, km/h, m per sec, m/ sec.  To select equipment on my own and can explain how to use it accurately	measurements.  To decide what to observe, how long to observe for and whether to repeat them.  To take accurate and precise measurements using standard units N, g, kg, mm, cm, mins, seconds, cm²V, km/h, m per sec, m/ sec.  To select equipment on my own and can explain how to use it accurately.
		cm, m, ml, l , °C		can use new equipment eg. data	To decide what to observe	measurements using standard units	·
		and equipment with support (eg hand lenses and egg timers)  Begin to progress from non-standard units, reading. cm, m, cl, l, °C  To begin to observe changes over time.  To begin say what I am looking for and what I am measuring.  To measure with non-standard units and can begin to use simple	hand lenses and egg timers)  Begin to progress from non- standard units, reading mm, cm, m, ml, l, °C  To observe changes over time.  To say what I am looking for and what I am measuring.  To measure with non- standard units and can begin to use simple standard units eg, mm, cm, m, ml, l, °C  To use simple equipment eg, hand lenses, egg timers.	Begin to choose from a selection of equipment.  Begin to observe and measure accurately using standard units including time in minutes and seconds.  To make systematic and careful observations.  To decide what to observe and how long to collect observations.  To take accurate measurements using standard units eg. mm, cm, m, ml, l, °C, seconds, minutes,	be used.  Learn to use new equipment appropriately (eg data loggers).  Can see a pattern in my results.  Can choose from a selection of equipment.  Can observe and measure accurately using standard units including time in minutes and seconds.  To make systematic and careful observations.	Select equipment on my own.  Can make a set of observations and say what the interval and range are.  Begin to take accurate and precise measurements — N, g, kg, mm, cm, mins, seconds, cm²V, km/h, m per sec, m/ sec  Graphs — pie, line  To make accurate and precise measurements.  To decide what to observe, how long to observe for and whether to repeat them.	Can interpret data and find patterns.  Select equipment on my own.  Can make a set of observations and say what the interval and range are.  Accurate and precise measurements — N, g, kg, mm, cm, mins, seconds, cm²V, km/h, m per sec, m/ sec  Graphs — pie, line, bar (Year 6)
Observing and measuring Pattern seeking	Use all their senses in hands-on exploration of natural materials.  To use all your senses when finding out about new things.	Begin to observe closely, using simple equipment.  Use simple observations and ideas to suggest answers to questions.  To observe simple changes over time and, with guidance, begin to notice patterns and relationships.  To say what I am looking for and what I am measuring.  To know how to use simple equipment safely.  Use simple measurements	Observe closely, using simple equipment.  Use observations and ideas to suggest answers to questions.  To observe changes over time and, with guidance, begin to notice patterns and relationships.  To say what I am looking for and what I am measuring. To know how to use simple equipment safely.  Use simple measurements and equipment with increasing independence (eg.	Begin to make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers.  Begin to look for naturally occurring patterns and relationships and decide what data to collect to identify them.  Help to make decisions about what observations to make, how long to make them for and the type of simple equipment that might be used.  Learn to use some new equipment appropriately (eg data loggers).  Begin to see a pattern in my results.	Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers.  Begin to look for naturally occurring patterns and relationships and decide what data to collect to identify them.  Help to make decisions about what observations to make, how long to make them for and the type of simple equipment that might	Begin to take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings where appropriate.  Begin to identify patterns that might be found in the natural environment.  Begin to make their own decisions about what observations to make, what measurements to use and how long to make them for and whether to repeat them. Choose the most appropriate equipment and explain how to use it accurately.  Begin to interpret data and find patterns.	Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings where appropriate.  Identify patterns that might be found in the natural environment.  Make their own decisions about what observations to make, what measurements to use and how long to make them for and whether to repeat them. Choose the most appropriate equipment and explain how to use it accurately.

ez n m Ti se	nands-on exploration of natural naterials.  To use all your inding, out about new things.	To begin to discuss my ideas about how to find things out.  To begin to say what happened in my investigation.  To begin to perform simple tests.  To begin to discuss my ideas.  To begin to say what happened in an investigation.	To discuss my ideas about how to find things out.  To say what happened in my investigation.  To perform simple tests.  To discuss my ideas.  To say what happened in an investigation.	Begin to recognise when a simple fair test is necessary and help to decide how to set it up.  Begin to think of more than one variable factor.  To set up some simple practical enquiries. Including comparative and fair tests.  To begin to help decide which variables to keep the same and which to change.	Recognise when a simple fair test is necessary and help to decide how to set it up.  Can think of more than one variable factor.  To set up simple practical enquiries. Including comparative and fair tests.  To help decide which variables to keep the same and which to change.	Begin to recognise when and how to set up comparative and fair tests and explain which variables need to be controlled and why.  Begin to suggest improvements to my method and give reasons. Begin to decide when it is appropriate to do a fair test.  To sometimes set up a range of comparative and fair tests.  To begin to explain which variables need to be controlled and why.  To begin to suggest improvements to my test, giving reasons.	Recognise when and how to set up comparative and fair tests and explain which variables need to be controlled and why.  Suggest improvements to my method and give reasons.  Decide when it is appropriate to do a fair test.  To set up a range of comparative and fair tests.  To explain which variables, need to be controlled and why.  To suggest improvements to my that evicining reasons.
Skill	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	my test, giving reasons.  Year 6
Skiii	ETFS	(KS1 skills)	(KS1 skills)	(Lower KS2 skills)	(Lower KS2 skills)	(Upper KS2 skills)	(Upper KS2 skills)
and reporting man and	Explore the natural world uround them, making rhservations and drawing sictures of unimals and plants.  For use all your tenses when inding out about new things.	Gather and record data with some adult support, to help in answering questions.  Begin to record simple data.  Begin to record and communicate their findings in a range of ways.  Can show my results in a simple table that my teacher has provided.  To begin to collect simple data.  To begin to record data in a table my teacher has provided.  To begin to record data in a table my teacher has provided.  To begin to communicate my findings in a variety of ways.	Gather and record data to help in answering questions.  Record simple data.  Record and communicate their findings in a range of ways.  Can show my results in a table that my teacher has provided.  To collect simple data.  To record data in a table my teacher has provided.  To communicate my findings in a variety of ways.	Gather, record, and begin to classify and present data in a variety of ways to help in answering questions.  Begin to record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables.  Begin to report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.  Begin to use notes, simple tables and standard units and help to decide how to record and analyse their data.  Begin to record results in tables and bar charts.  To begin to collect data in a variety of ways, including labelled diagrams, bar charts and tables.  To begin to help decide how to record data.  To begin to communicate findings using simple scientific language.	Gather, record, classify and present data in a variety of ways to help in answering questions.  Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables.  Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.  Use notes, simple tables and standard units and help to decide how to record and analyse their data.  Can record results in tables and har charts.  To collect data in a variety of ways, including labelled diagrams, bar charts and tables.  To help decide how to record data.  To communicate findings using simple scientific language	Begin to record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables and bar and line graphs.  Begin to report and present findings from enquiries.  Begin to decide how to record data from a choice of familiar approaches.  Begin to choose how best to present data.  To beginning to record data and results of increasing complexity using — scientific diagrams and labels, classification keys, tables, bar graphs, line graphs  To beginning to choose how best to present data.  To beginning to communicate findings using detailed scientific language.	Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables and bar and line graphs.  Report and present findings from enquiries.  Decide how to record data from a choice of familiar approaches.  Can choose how best to present data.  To record data and results of increasing complexity using -scientific diagrams and labels classification keys tables, bar graphs, line graphs  To choose how best to present data.  To communicate findings using detailed scientific language.

Skill	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
		(KS1 skills)	(KS1 skills)	(Lower KS2 skills)	(Lower KS2 skills)	(Upper KS2 skills)	(Upper KS2 skills)
Identifying, grouping and classifying	Explore collections of materials with similar and/or different properties.  To collect materials and group them.	Identify and classify with some support.  To begin to observe and identify, compare and describe.  To begin to use simple features to compare objects, materials and living things and, with help, decide how to sort and group them.  To begin to identify a variety of objects, materials and living things.  To begin to compare, sort and group a range of objects, materials and living things.	Identify and classify.  Observe and identify, compare and describe.  Use simple features to compare objects, materials and living things and, with help, decide how to sort and group them.  To identify a variety of objects, materials and living things.  To compare, sort and group a range of objects, materials and living things.	Begin to identify differences, similarities or changes related to simple scientific ideas and processes.  Begin to talk about criteria for grouping, sorting and classifying and use simple keys.  Begin to compare and group according to behaviour or properties, based on testing.  To beginning to talk about and identify differences and similarities in the properties or behaviour of living things, materials and other scientific phenomena.  To beginning to identify simple changes related to simple scientific phenomena.  To beginning to discuss criteria for grouping and sorting and can classify using simple keys.	Identify differences, similarities or changes related to simple scientific ideas and processes.  Talk about criteria for grouping, sorting and classifying and use simple keys.  Compare and group according to behaviour or properties, based on testing.  To talk about and identify differences and similarities in the properties or behaviour of living things, materials and other scientific phenomena.  To identify simple changes related to simple scientific phenomena.  To discuss criteria for grouping and sorting and can classify using simple keys.	Begin to use and develop keys and other information records to identify, classify and describe living things and materials.  To beginning to use keys and other information records to classify and describe living things, materials and other scientific phenomena.  To beginning to develop my own keys and other information records to classify and describe.  To beginning to identify changes related to scientific phenomena.	Use and develop keys and other information records to identify, classify and describe living things and materials.  To use keys and other information records to classify and describe living things, materials and other scientific phenomena.  To develop my own keys and other information records to classify and describe.  To identify changes related to scientific phenomena.
Skill	EYFS	Year 1 (KS1 skills)	Year 2 (KS1 skills)	Year 3 (Lower KS2 skills)	<b>Year 4</b> (Lower KS2 skills)	Year 5 (Upper KS2 skills)	<b>Year 6</b> (Upper KS2 skills)
Research		To begin to use simple secondary sources to find answers.  To begin to find information to help me from books and computers with help.  To begin to find information to help me from books, computers and other familiar sources.	Use simple secondary sources to find answers.  Can find information to help me from books and computers with help.  To find information to help me from books, computers and other familiar sources.	Begin to recognise when and how secondary sources might help to answer questions that cannot be answered through practical investigations.  To hegin to decide when research will help in my enquiry.  To heginning to carry out simple research on my own.	Begin to recognise when and how secondary sources might help to answer questions that cannot be answered through practical investigations.  To hegin to decide when research will help in my enquiry.  To carry out simple research on my own.	Begin to recognise which secondary sources will be most useful to research their ideas.  To beginning to recognise which secondary source will be most useful to my research.  To begin to carry out research independently.	Recognise which secondary sources will be most useful to research their ideas.  To recognise which secondary source will be most useful to my research.  To carry out research independently.
Skill	EYFS	Year 1 (KS! Skills)	Year 2 (KS1 skills)	Year 3 (Lower KS2 skills)	Year 4 (Lower KS2 skills)	Year 5 (Upper KS2 skills)	Year 6 (Upper KS2 skills)

Conclusions

Begin to talk about what they have found out and how they found it out.

To begin to say what happened in my investigation.

To begin to say whether I was surprised at the results or not.

To begin to say what I would change about my investigation.

To begin to talk about what I have found out.

To begin to explain how I carried out my enquiry.

To begin to suggest simple changes to my enquiry.

Talk about what they have found out and how they found it out.

To say what happened in my investigation.

To say whether I was surprised at the results or not.

To say what I would change about my investigation.

To talk about what I have found out.

To explain how I carried out my enquiry.

To suggest simple changes to my enquiry.

I am beginning to use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions.

Am beginning to use straightforward scientific evidence to answer questions or to support their findings.

With help, am beginning to look for changes, patterns, similarities and differences in their data in order to draw simple conclusions and answer questions. With support, am beginning to identify new questions arising from the data, make new predictions and find ways of improving what they have already done.

Am beginning to see a pattern in my results.

Am beginning to say what I found out, **linking cause and effect.** 

Am beginning to say how I could make it better. Am beginning to answer questions

from what I have found out.

To begin to draw simple conclusions based on the results of my enquiry.

To begin to answer my questions using the results of my enquiry.

To begin to use my findings to make new predictions, suggest improvements and think of new questions.

To begin sometimes to think of cause and effect in my explanations.

Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions.

Use straightforward scientific evidence to answer questions or to support their findings.

With help, look for changes, patterns, similarities and differences in their data in order to draw simple conclusions and answer questions. With support, identify new questions arising from the data, make new predictions and find ways of improving what they have already done.

Can see a pattern in my results.

Can say what I found out, linking cause and effect.

Can say how I could make it better.

Can answer questions from what I have found out.

To draw simple conclusions based on the results of my enquiry.

To answer my questions using the results of my enquiry.

To use my findings to make new predictions, suggest improvements and think of new questions.

To begin to think of cause and effect in my explanations.

Am beginning to report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations.

Begin to identify scientific evidence that has been used to support or refute ideas or arguments.

Begin to draw conclusions based on their data and observations, use evidence to justify their ideas, use scientific knowledge and understanding to explain their findings.

Begin to use test results to make predictions to set up further comparatives and fair tests.

Begin to look for different causal relationships in their data and identify evidence that refutes or supports their ideas.
Use their results to identify when further tests and observations are needed.

Begin to separate opinion from fact.

Begin to draw conclusions and identify scientific evidence.
Can use simple **models.**Know which evidence proves a scientific point.

Begin to use test results to make predictions to set up further comparative and fair tests.

To begin to draw scientific, causal conclusions using the results of an enquiry to justify my ideas..

To begin to explain my conclusion using scientific knowledge and understanding.

To begin to distinguish opinion and facts.

To begin to use my findings to make predictions and set up further enquiries.

To begin to use abstract models to explain my ideas.

Reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations.

Identify scientific evidence that has been used to support or refute ideas or arguments.

Draw conclusions based on their data and observations, use evidence to justify their ideas, use scientific knowledge and understanding to explain their findings.

Use test results to make predictions to set up further comparatives and fair tests.

Look for different causal relationships in their data and identify evidence that refutes or supports their idens.

Use their results to identify when further tests and observations are needed.

Separate opinion from fact.

Can draw conclusions and identify scientific evidence.
Can use simple **models.**Know which evidence proves a scientific point.

Use test results to make predictions to set up further comparative and fair tests.

To draw scientific, causal conclusions using the results of an enquiry to justify my ideas..

To explain my conclusion using scientific knowledge and understanding.

To distinguish opinion and lacts.

Skill  Vocabulary See glossary sheets for each unit for each phase.	EYFS  Talk about what they see, using a wide vocabulary.  To talk about what you see.	Year 1 (KS1 skills)  Use some simple scientific language  Begin to use some science words.  Use comparative language with support.  To begin to use simple scientific language.  To begin to describe what I see eg something is long.  To begin to compare eg something is longer or shorter.	Year 2 (KS1 skills)  Use simple scientific language and some science words.  Use comparative language — higger, faster etc  To use simple scientific language.  To describe what I see.  To compare eg something is longer or shorter.	Year 3 (Lower KS2 skills)  Begin to use some scientific language to talk and, later, write about what they have found out.  Begin to use relevant scientific language.  Begin to use comparative and superlative language.  Beginning to use some scientific language in my work.  Beginning to describe my observations and my findings  Beginning to use comparative and superlative descriptions eg longer / shorter than, longest / shortest.  To begin to describe cause and effect.	Year 4 (Lower KS2 skills)  Use some scientific language to talk and, later, write about what they have found out.  Use relevant scientific language.  Use comparative and superlative language  To use some scientific language in my work.  To describe my observations and my findings.  To n use comparative and superlative descriptions eglonger / shorter than, longest / shortest.  To begin to describe cause and effect.	Year 5 (Upper KS2 skills)  Beginning to read, spell and pronounce scientific vocabulary correctly.  Beginning to use relevant scientific language and illustrations to discuss, communicate and justify scientific ideas.  Beginning to confidently use a range of scientific vocabulary.  Beginning to use conventions such as trend, roque result, support prediction and -er word generalisation.  Beginning to use scientific ideas when describing simple processes. Am beginning to use the correct science vocabulary.  To begin to read, spell and pronounce scientific vocabulary correctly.  To begin to confidently use the correct scientific language when appropriate.  To begin to explain my ideas with scientific reasons.  To begin to use scientific conventions eg trends, roque result, support prediction.	To use my findings to make predictions and set up further enquiries  To begin to use abstract models to explain my ideas.  Year 6 (Upper KS2 skills)  Read, spell and pronounce scientific vocabulary correctly.  Use relevant scientific language. And illustrations to discuss, communicate and justify scientific ideas.  Can confidently use a range of scientific vocabulary.  Can use conventions such astrend, roque result, support prediction and -er word generalisation.  Can use scientific ideas when describing simple processes. Can use the correct science vocabulary  To read, spell and pronounce scientific vocabulary.  To confidently use the correct scientific language when appropriate.  To explain my ideas with scientific reasons.  To use scientific conventions eg trends, roque result, support prediction.
Skill	EYFS	Year 1 (KS1 skills)	<b>Year 2</b> (KS1 skills)	Year 3 (Lower KS2 skills)	<b>Year 4</b> (Lower KS2 skills)	Year 5 (Upper KS2 skills)	<b>Year 6</b> (Upper KS2 skills)
Understanding	Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.	Can begin to talk about how science helps us in our daily lives eg, torches and lights help us see hen it is dark.  Am beginning to understand science can sometimes be dangerous.  To say how science helps us in our daily lives.	Can talk about how science helps us in our daily lives eg. torches and lights help us see hen it is dark.  Am beginning to understand science can sometimes be dangerous.  To say how science helps us in our daily lives.	Begin to know which things in science have made our lives better.  Can begin to understand risk in science.  To begin to know which things in science have made our lives better eg computers in schools, hospitals etc  To begin to understand risk in science.	Knows which things in science have made our lives better.  Can understand there is some risk in science.  To know some things in science which have made our lives better eg computers in schools, hospitals etc  To understand there is some risk in science.	Am beginning to talk about how scientific ideas have changed over time.  Am beginning to explain the positive and negative effects of scientific development.  Am beginning to see how science is useful in everyday life.  Am beginning to say which parts of our lives rely on science.  To begin to see how science is useful in lots of different ways.	Can talk about how scientific ideas have changed over time.  Can explain the positive and negative effects of scientific development.  Can see how science is useful in everyday life.  Can say which parts of our lives rely on science.

	To understand there are four seasons.  To begin to understand that materials can	To say how science can be dangerous eg electricity can give you a shock.	To say how science can be dangerous eg electricity can give you a shock.			To begin to say which parts of our lives rely on science.  To begin to explain the positive and negative effects of scientific developments.	To see how science is useful in lots of different ways.  To say which parts of our lives rely on science.  To explain the positive and negative effects of scientific developments
Skill	change. EYFS	k	(S1	LKS2		UKS2	
Enrichment	Use of the	Use the school grounds.				Sandlea Park	
	school	Trip to Ashton Park.				Chester Zoo	
	grounds	Birkenhead Park.				WKGS for a Light worksl	hop