

	Year 1 (KS1 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)
Working Scientifically	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	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).	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).	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.	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.	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.)	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.)



	Year 1 (KS1 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)
Questioning and enquiring Planning	I can ask a few simple questions about the world around us.	I can ask simple questions about the world around us.	I can ask some relevant questions about the world around us.	I can ask relevant questions about the world around us.	I am beginning to explore ideas and ask my own questions about scientific phenomena.	I can explore ideas and ask my own questions about scientific phenomena.
Planning I can statements	I can begin to use some different types of enquiry to answer questions.	I can begin to use different types of enquiry to answer questions.	I can use some different types of scientific enquiry to answer questions. I am beginning to decide which type of enquiry is best to answer my question.	I can use different types of scientific enquiry to answer questions. I am beginning to decide which type of enquiry is best to answer my question.	I am beginning to plan different types of scientific enquiry to answer questions. I am beginning to decide which variables to control.	I can plan different types of scientific enquiry to answer questions. I can decide which variables to control.



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	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)
Observing and measuring Pattern seeking	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 and equipment with support (eg hand lenses and egg timers) Begin to progress from non-standard units, reading cm, m, cl, l, °C	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 hand lenses and egg timers) Begin to progress from non-standard units, reading mm, cm, m, ml, I, °C	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. Begin to choose from a selection of equipment. Begin to observe and measure accurately using standard units including time in minutes and seconds.	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 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.	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. 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	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. 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, cm², V, km/h, m per sec, m/ sec Graphs – pie, line, bar (Year 6)



	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Observing and	(KS1 skills) I can begin to	(KS1 skills) I can observe changes	(Lower KS2 skills) I can make systematic and	(Lower KS2 skills) I can make systematic and	(Upper KS2 skills) I can make accurate and precise	(Upper KS2 skills) I can make accurate and precise
measuring	observe changes over time.	over time.	careful observations.	careful observations.	measurements.	measurements.
Pattern seeking I can	I can begin to say	I can say what I am looking for and what I	I can decide what to observe and how long to collect	I can decide what to observe and how long to	I can decide what to observe, how long to observe for and	I can decide what to observe, how long to observe for and
I can statements	I can begin to say what I am looking for and what I am measuring. I can measure with non-standard units and can begin to use simple standard units eg, cm, m, ml, I, I can use some simple equipment eg hand lenses, egg timers. I am beginning to notice patterns.	looking for and what I am measuring. I can measure with nonstandard units and can begin to use simple standard units eg, mm, cm, m, mI, I, ºC I can use simple equipment eg hand lenses, egg timers. I am beginning to notice patterns.	and how long to collect observations. I can take accurate measurements using standard units eg. mm, cm, m, ml, l, ºC, seconds, minutes, I can decide which equipment to use and can use new equipment eg. data loggers. I can look for patterns and relationships.	observe and how long to collect observations. I can take accurate measurements using standard units eg. mm, cm, m, ml, I, ºC, seconds, minutes, I can decide which equipment to use and can use new equipment eg. data loggers. I can look for patterns and relationships	how long to observe for and whether to repeat them. I can take accurate and precise measurements using standard units N, g, kg, mm, cm, mins, seconds, cm²V, km/h, m per sec, m/ sec. I can select equipment on my own and can explain how to use it accurately.	how long to observe for and whether to repeat them. I can take accurate and precise measurements using standard units N, g, kg, mm, cm, mins, seconds, cm²V, km/h, m per sec, m/ sec. I can select equipment on my own and can explain how to use it accurately.



	Year 1 (KS1 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)
Investigating	Perform simple tests with support. To begin to discuss my ideas about how to find things out. To begin to say what happened in my investigation.	Perform simple tests. To discuss my ideas about how to find things out. To say what happened in my investigation.	Set up some simple practical enquiries, comparative and fair tests. 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.	Set up simple practical enquiries, comparative and fair tests. 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.	Begin to use test results to make predictions to set up further comparative and fair tests. 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.	Use test results to make predictions to set up further comparative and fair tests. 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.
I can statements	I can begin to perform simple tests. I can begin to discuss my ideas. I can begin to say what happened in an investigation.	I can perform simple tests. I can discuss my ideas. I can say what happened in an investigation.	I can set up some simple practical enquiries. Including comparative and fair tests. I am beginning to help decide which variables to keep the same and which to change.	I can set up simple practical enquiries. Including comparative and fair tests. I can help decide which variables to keep the same and which to change.	I can sometimes set up a range of comparative and fair tests. I am beginning to explain which variables need to be controlled and why. I am beginning to suggest improvements to my test, giving reasons.	I can set up a range of comparative and fair tests. I can explain which variables need to be controlled and why. I can suggest improvements to my test, giving reasons.



	Year 1 (KS1 skills)	Year 2 (KS1 skills)	Year 3 (Lower K52 skills)	Year 4 (Lower KS2 skills)	Year 5 (Upper KS2 skills)	Year 6 (Upper KS2 skills)
Recording and	Gather and record	(KSI SKIIIS)	(Lower K52 skills)	(Lower K52 skills)	(Upper K52 skills)	Record data and results of
reporting findings	data with some adult support, to help in answering questions.	Gather and record data to help in answering questions.	Gather, record, and begin to classify and present data in a variety of ways to help in answering questions.	Gather, record, classify and present data in a variety of ways to help in answering questions.	Begin to record data and results of increasing complexity using scientific diagrams and labels,	increasing complexity using scientific diagrams and labels, classification keys, tables and bar and line graphs.
	Begin to record simple data. Begin to record and	Record simple data. Record and	Begin to record findings using simple scientific language, drawings, labelled diagrams, keys,	Record findings using simple scientific language, drawings, labelled diagrams, keys, bar	classification keys, tables and bar and line graphs. Begin to report and present	Report and present findings from enquiries.
	communicate their findings in a range of ways.	communicate their findings in a range of ways.	bar charts and tables. Begin to report on findings from	charts and tables. Report on findings from	findings from enquiries. Begin to decide how to	Decide how to record data from
	Can show my results	Can show my results in	enquiries, including oral and written explanations, displays or	enquiries, including oral and written explanations,	record data from a choice of familiar approaches.	choice of familiar approaches.
	in a simple table that my teacher has provided.	a table that my teacher has provided.	presentations of results and conclusions.	displays or presentations of results and conclusions.	Begin to choose how best to present data.	Can choose how best to present data.
	p.c.raca		Begin to use notes, simple tables and standard units and help to decide how to record and analyse their data.	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.	Can record results in tables and bar charts.		
I can statements	I can begin to collect simple data. I can begin to record data in a table my teacher has provided.	I can collect simple data. I can record data in a table my teacher has provided.	I am beginning to collect data in a variety of ways, including labelled diagrams, bar charts and tables. I am beginning to help decide how to record data.	I can collect data in a variety of ways, including labelled diagrams, bar charts and tables. I can help decide how to	I am beginning to record data and results of increasing complexity using – scientific diagrams and labels, classification keys, tables ,bar graphs, line graphs	I can record data and results of increasing complexity using — scientific diagrams and labels classification keys tables bar graphs line graphs
	I can begin to communicate my findings in a variety of	I can communicate my findings in a variety of ways.	I am beginning to communicate findings using simple scientific language.	record data. I can communicate findings using simple scientific	I am beginning to choose how best to present data. I am beginning to	I can choose how best to present data.
	ways.			language	communicate findings using detailed scientific language.	I can communicate findings using detailed scientific language.



	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	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.	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.	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.	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.	Begin to use and develop keys and other information records to identify, classify and describe living things and materials.	Use and develop keys and other information records to identify, classify and describe living things and materials.
I can statements	I can begin to identify a variety of objects, materials and living things. I can begin to compare, sort and group a range of objects, materials and living things.	I can identify a variety of objects, materials and living things. I can compare, sort and group a range of objects, materials and living things	I am beginning to talk about and identify differences and similarities in the properties or behaviour of living things, materials and other scientific phenomena. I am beginning to identify simple changes related to simple scientific phenomena. I am beginning to discuss criteria for grouping and sorting and can classify using simple keys.	I can talk about and identify differences and similarities in the properties or behaviour of living things, materials and other scientific phenomena. I can identify simple changes related to simple scientific phenomena. I can discuss criteria for grouping and sorting and can classify using simple keys.	I am beginning to use keys and other information records to classify and describe living things, materials and other scientific phenomena. I am beginning to develop my own keys and other information records to classify and describe. I am beginning to identify changes related to scientific phenomena.	I can use keys and other information records to classify and describe living things, materials and other scientific phenomena. I can develop my own keys and other information records to classify and describe. I can identify changes related to scientific phenomena.



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	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)
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.	Use simple secondary sources to find answers. Can find information to help me from books and computers with help.	Begin to recognise when and how secondary sources might help to answer questions that cannot be answered through practical investigations.	Begin to recognise when and how secondary sources might help to answer questions that cannot be answered through practical investigations.	Begin to recognise which secondary sources will be most useful to research their ideas.	Recognise which secondary sources will be most useful to research their ideas.
I can statements	I can begin to find information to help me from books, computers and other familiar sources.	I can find information to help me from books, computers and other familiar sources.	I can begin to decide when research will help in my enquiry. I am beginning to carry out simple research on my own.	I can begin to decide when research will help in my enquiry. I can carry out simple research on my own.	I am beginning to recognise which secondary source will be most useful to my research. I can begin to carry out research independently.	I can recognise which secondary source will be most useful to my research. I can carry out research independently.



Be the Best You Ca Guided by God

	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)
v c c f f	(KS1 skills) 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.	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.	(Lower KS2 skills) 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 answer questions from what I have found out.	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 answer questions from what I have found out.	(Upper KS2 skills) 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.	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 ideas. 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





	Year 1 (KS1 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)
Vocabulary	Use some simple scientific language Begin to use some science words. Use comparative language with support.	Use simple scientific language and some science words. Use comparative language — bigger, faster etc	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.	Use some scientific language to talk and, later, write about what they have found out. Use relevant scientific language. Use comparative and superlative language	Beginning to read, spell and pronounce scientific vocabulary correctly. Am beginning to use relevant scientific language and illustrations to discuss, communicate and justify scientific ideas. Am beginning to confidently use a range of scientific vocabulary. Am beginning to use conventions such as trend, rogue result, support prediction and -er word generalisation. Am beginning to use scientific ideas when describing simple processes. Am beginning to use the correct science vocabulary	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 as trend, rogue result, support prediction and -er word generalisation. Can use scientific ideas when describing simple processes. Can use the correct science vocabulary
I can statements	I can begin to use simple scientific language. I can begin to describe what I see eg something is long. I can begin to compare eg something is longer or shorter.	I can use simple scientific language. I can describe what I see. I can compare eg something is longer or shorter.	I am beginning to use some scientific language in my work. I am beginning to describe my observations and my findings I am beginning to use comparative and superlative descriptions eg longer / shorter than, longest / shortest. I can begin to describe cause and effect.	I can use some scientific language in my work. I can describe my observations and my findings I can use comparative and superlative descriptions eg longer / shorter than, longest / shortest. I can begin to describe cause and effect.	I am beginning to read, spell and pronounce scientific vocabulary correctly. I am beginning to confidently use the correct scientific language when appropriate. I am beginning to explain my ideas with scientific reasons. I am beginning to use scientific conventions eg trends, rogue result, support prediction.	I can read, spell and pronounce scientific vocabulary correctly. I can confidently use the correct scientific language when appropriate. I can explain my ideas with scientific reasons. I can use scientific conventions extrends, rogue result, support prediction.



						Guided by God
	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)
Understanding	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.	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.	Begin to know which things in science have made our lives better. Can begin to understand risk in science.	Knows which things in science have made our lives better. Can 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.	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.
I can statements	I can say how science helps us in our daily lives. I can say how science can be dangerous eg electricity can give you a shock.	I can say how science helps us in our daily lives. I can say how science can be dangerous eg electricity can give you a shock.	I am beginning to know which things in science have made our lives better eg computers in schools, hospitals etc I can begin to understand risk in science	I know some things in science which have made our lives better eg computers in schools, hospitals etc I understand there is some risk in science	I am beginning to see how science is useful in lots of different ways. I am beginning to say which parts of our lives rely on science. I am beginning to explain the positive and negative effects of scientific developments.	I can see how science is useful in lots of different ways. I can say which parts of our lives rely on science. I can explain the positive and negative effects of scientific developments
Year 7 -for information	Can give explanations of Can draw valid conclus I can evaluate my work Can identify several va Can say why equipment Can make suggestions	and make suggestions for riables and select the best t is appropriate to the task	results. ne piece of supporting evidence. improvement. one/s to investigate.	Understand that people have Can say how science affects m Understands that science can Can use more than one step to Can explain scientific ideas in	scientific evidence and opinion. different ideas about science. de and other people in different way be used in a positive and ways. do describe a process.	