Chilmark and Fonthill Bishop Primary School Subject area: Science

	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)
Working	To use the	To use the	To use the following	To use the following	To use the following	To use the following
Scientifically	following	following practical	practical scientific methods,	practical scientific	practical scientific	practical scientific
	practical scientific	scientific methods,	processes and skills –	methods, processes	methods, processes and	methods, processes and
	methods,	processes and skills		and skills –	skills –	skills –
	processes and	with increasing				
	skills (adult	confidence -				
	support may be					
	needed) –					
Questioning and	Ask simple	Ask questions	Ask some relevant	Ask relevant questions		Plan different types of
enquiring	questions about	about the world	questions and use different	and use different types	Begin to plan different	scientific enquiries to
Planning	the world around	around us.	types of scientific enquiries	of scientific enquiries	types of scientific	answer questions,
	us.		to answer them.	to answer them.	enquiries to answer	including recognising and
					questions, including	controlling variables where
	Begin to	Recognise that	Begin to explore everyday	Explore everyday	recognising and	necessary.
	recognise that	they can be	phenomena and the	phenomena and the	controlling variables	
	they can be	answered in	relationships between	relationships between	where necessary.	
	answered in	different ways (living things and familiar	living things and		Explore and talk about
	different ways	different types of	environments.	familiar environments.	Begin to explore and talk	ideas, ask their own
	(diifferent types	enquiry including -			about ideas, ask their own	questions about scientific
	of enquiry	observing changes	Begin to develop their ideas	Begin to develop their	questions about scientific	phenomena, analyse
	including -	over time, noticing	about functions,	ideas about functions,	phenomena, analyse	functions, relationships and
	observing	patterns, grouping	relationships and	relationships and	functions, relationships	interactions more
	changes over	and classifying,	interactions.	interactions.	and interactions more	systematically.
	time, noticing	carrying out simple			systematically.	
	patterns,	comparative tests,	Begin to raise their own	Raise their own		Begin to recognise more
	grouping and	finding things out	questions about the world	questions about the	Begin to recognise some	abstract ideas and begin to
	classifying,	from secondary	around them.	world around them.	more abstract ideas and	recognise how these ideas
	carrying out	sources).			begin to recognise how	help them to understand
	simple		Barin ta mada assas	Make some decisions	these ideas help them to	how the world operates.
	comparative	t and advantage	Begin to make some	about which types of	understand how the world	Barin to manage and the
	tests, finding	I can ask simple	decisions about which	enquiry will be the best	operates.	Begin to recognise scientific
	things out from	questions about	types of enquiry will be the	way of answering	Dogin to manageries	ideas change and develop
	secondary	the world around	best way of answering	questions including	Begin to recognise	over time.

	I can ask a few simple questions about the world around us. 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. Observe closely,	questions including observing changes over time, noticing patterns, grouping and classifying, carrying out simple comparative and fair tests, finding things out using secondary sources. I can ask some relevant questions about the world around us. 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.	observing changes over time, noticing patterns, grouping and classifying, carrying out simple comparative and fair tests, finding things out using secondary sources. I can ask relevant questions about the world around us. 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.	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.) I am beginning to explore ideas and ask my own questions about scientific phenomena. I am beginning to plan different types of scientific enquiry to answer questions. I am beginning to decide which variables to control.	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.) I can explore ideas and ask my own questions about scientific phenomena. I can plan different types of scientific enquiry to answer questions. I can decide which variables to control.
Observing and	closely, using	using simple	Begin to make systematic	Make systematic and	Begin to take	Take measurements, using
measuring	simple	equipment.	and careful observations	careful observations	measurements, using a	a range of scientific
Pattern seeking	equipment.	equipinent.	and, where appropriate,	and, where	range of scientific	equipment, with increasing
rattern seeking	equipilielit.	Use observations	take accurate	appropriate, take	equipment, with	accuracy and precision,
	Use simple	and ideas to	measurements using	appropriate, take		taking repeat readings
	Use simple				increasing accuracy and	
	observations and	suggest answers to	standard units, using a	measurements using	precision, taking repeat	where appropriate.
	ideas to suggest	questions.	range of equipment,	standard units, using	readings where	

answers to		including thermometers	a range of	appropriate.	Identify patterns that might
questions.	To observe changes	and data loggers.	equipment, including		be found in the natural
questions.	over time and, with	and data loggers.	thermometers and	Begin to identify patterns	environment.
To observe simple	guidance, begin to	Begin to look for	data loggers.	that might be found in the	environment.
<u> </u>	notice patterns and	naturally occurring	uata loggers.	natural environment.	
changes over	· ·	patterns and	Begin to look for	natural environment.	Make their own decisions
time and, with	relationships.	relationships and decide	naturally occurring	Danis da sa la distribución	
guidance, begin		what data to collect to	patterns and	Begin to make their own decisions about what	about what observations to
to notice patterns		identify them.	relationships and		make, what measurements
and relationships.	To say what I am	identity them.	decide what data to	observations to make,	to use and how long to
	looking for and	Help to make decisions	collect to identify	what measurements to	make them for and
To say what I am	what I am	about what observations	them.	use and how long to make	whether to repeat them.
looking for and	measuring.	to make, how long to	tileili.	them for and whether to	Choose the most
what I am	To know how to	make them for and the	Help to make	repeat them. Choose the	appropriate equipment and
measuring.	use simple	type of simple	decisions about what	most appropriate	explain how to use it
To know how to	equipment safely.	equipment that might be	observations to	equipment and explain	accurately.
use simple		used.	make, how long to	how to use it accurately.	
equipment safely.	Use simple		make them for and		Can interpret data and find
	measurements and		the type of simple	Begin to interpret data	patterns.
Use simple	equipment with		equipment that	and find patterns.	Select equipment on my
measurements	increasing	Learn to use some new	might be used.	Select equipment on my	own.
and equipment	independence (eg	equipment	inight be asea.	own.	Can make a set of
with support (eg	hand lenses and	appropriately (eg data	Learn to use new	Can make a set of	observations and say what
hand lenses and	egg timers)	loggers).	equipment	observations and say what	the interval and range are.
egg timers)		.	appropriately (eg	the interval and range are.	
	Begin to progress	Begin to see a pattern in	data loggers).		Accurate and precise
Begin to progress	from non-standard	my results.	,	Begin to take accurate and	measurements – N, g, kg,
from non-	units, reading mm,	Begin to choose from a	Can see a pattern in	precise measurements –	mm, cm, mins, seconds,
standard units,	cm, m, ml, l, °C	selection of equipment.	my results.	N, g, kg, mm, cm, mins,	cm ² V, km/h, m per sec, m/
reading cm, m, cl,		selection of equipment.		seconds, cm ² V, km/h, m	sec
I, °C	I can observe	Begin to observe and	Can choose from a	per sec, m/ sec	Graphs – pie, line, bar (Year
	changes over time.	measure accurately using	selection of	Graphs – pie, line	6)
I can begin to		standard units including	equipment.		
observe changes	I can say what I am	time in minutes and	Con observe and	I can make accurate and	
over time.	looking for and	seconds.	Can observe and	precise measurements.	
	what I am		measure accurately		I can make accurate and
I can begin say	measuring.	I can make systematic	using standard units	I can decide what to	precise measurements.
what I am looking		and careful observations.	including time in	observe, how long to	
for and what I am	I can measure with		minutes and seconds.	observe for and whether	I can decide what to
measuring.	non-standard units	I can decide what to	I can make	to repeat them.	observe, how long to
J	and can begin to	observe and how long to	systematic and		observe for and whether to
			Systematic and	1	

use simple

I can measure

I can take accurate and

repeat them.

	with non-standard units and can begin to use simple standard units eg, mm, cm, m, ml, l, ºC I can use some simple equipment eg hand lenses, egg timers. I am beginning to notice patterns.	standard units eg, mm, cm, m, ml, l, ºC I can use simple equipment eg hand lenses, egg timers. I am beginning to notice patterns.	collect observations. I can take accurate measurements using standard units eg. mm, cm, m, ml, l, °C, seconds, minutes, I can decide which equipment to use and can use new equipment eg. data loggers. I can look for patterns and relationships.	careful observations. I can decide what to observe 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.	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.	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.
Investigating	Perform simple tests with support.	Perform simple tests. To discuss my ideas	Set up some simple practical enquiries, comparative and fair tests.	Set up simple practical enquiries, comparative and fair tests.	Begin to use test results to make predictions to set up further comparative and fair tests.	Use test results to make predictions to set up further comparative and fair tests.
	To begin to discuss my ideas about how to find things out. To begin to say what happened in my investigation.	about how to find things out. To say what happened in my 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.	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 recognise when and how to set up comparative and fair tests and explain which variables need to be controlled and why.	Recognise when and how to set up comparative and fair tests and explain which variables need to be controlled and why. Suggest improvements to
	I can begin to perform simple tests. I can begin to discuss my ideas.	I can perform simple tests. I can discuss my ideas.	I can set up some simple practical enquiries. Including comparative and fair tests. I am beginning to help decide which variables to	I can set up simple practical enquiries. Including comparative and fair tests. I can help decide which variables to keep the	Begin to suggest improvements to my method and give reasons. Begin to decide when it is appropriate to do a fair test.	my method and give reasons. Decide when it is appropriate to do a fair test. I can set up a range of

	I can begin to say what happened in an investigation.	I can say what happened in an investigation.	keep the same and which to change.	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.	comparative and fair tests. I can explain which variables need to be controlled and why. I can suggest improvements to my test, giving reasons.
Recording and reporting findings	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.	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.	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	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	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.	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.
	I can begin to collect simple data.	I can collect simple	tables and standard units and help to decide how to record and analyse their data.	tables and standard units and help to decide how to record and analyse their data.	I am beginning to record data and results	I can record data and results of increasing complexity using –

	I can begin to record data in a table my teacher has provided. I can begin to communicate my findings in a variety of ways.	I can record data in a table my teacher has provided. I can communicate my findings in a variety of ways.	Begin to record results in tables and bar charts. 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 am beginning to communicate findings using simple scientific language.	Can record results in tables and bar charts. I can collect data in a variety of ways, including labelled diagrams, bar charts and tables. I can help decide how to record data. I can communicate findings using simple scientific language	of increasing complexity using – scientific diagrams and labels, classification keys, tables, bar graphs, line graphs I am beginning to choose how best to present data. I am beginning to communicate findings using detailed scientific language.	scientific diagrams and labels classification keys tables bar graphs line graphs I can choose how best to present data. I can communicate findings using detailed scientific language.
Identifying, grouping and classifying	Identify and classify with some support. To begin to observe and identify, compare	Identify and classify. Observe and identify, compare and describe.	Begin to identify differences, similarities or changes related to simple scientific ideas and processes.	Identify differences, similarities or changes related to simple scientific ideas and processes.	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.
	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.	Use simple features to compare objects, materials and living things and, with help, decide how to sort and group them.	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. I am beginning to talk about and identify differences and similarities	Talk about criteria for grouping, sorting and classifying and use simple keys. Compare and group according to behaviour or properties, based on testing. I can talk about and identify differences and	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 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
	identify a variety of objects, materials and living things.	I can identify a variety of objects, materials and living things.	in the properties or behaviour of living things, materials and other scientific phenomena.	similarities in the properties or behaviour of living things, materials and other	I am beginning to identify changes related to scientific phenomena.	phenomena.

	I can begin to compare, sort and group a range of objects, materials and living things.	I can compare, sort and group a range of objects, materials and living things	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.	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.		
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. I can 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. I can 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. I can begin to decide when research will help in my enquiry. I am beginning 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. I can begin to decide when research will help in my enquiry. I can carry out simple research on my own.	Begin to recognise which secondary sources will be most useful to research their ideas. I am beginning to recognise which secondary source will be most useful to my research. I can begin to carry out research independently.	Recognise which secondary sources will be most useful to research their ideas. I can recognise which secondary source will be most useful to my research. I can carry out research independently.
Conclusions	Begin to talk about what they have found out and how they found it out.	Talk about what they have found out and how they found it out.	I am beginning to use results to draw simple conclusions, make predictions for new values, suggest improvements and	Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions.	Am beginning to report and present findings from enquiries, including conclusions, causal relationships and explanations of and	Reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral

To begin to say	happened in my	raise further questions.		degree of trust in results,	and written forms such as
what happened in	investigation.	raise farther questions.		in oral and written forms	displays and other
my investigation.	To say whether I	Am beginning to use	Use straightforward	such as displays and other	presentations.
To begin to say	was surprised at	straightforward scientific	scientific evidence to	presentations.	p. escitations.
whether I was	the results or not.	evidence to answer	answer questions or to	presentations.	
surprised at the	To say what I	questions or to support	support their findings.		
results or not.	would change	their findings.	support their infames.	Begin to identify scientific	Identify scientific evidence
To begin to say	about my	their initiality.		evidence that has been	that has been used to
what I would	investigation.			used to support or refute	support or refute ideas or
change about my	mvestigation.	With help, am beginning to	With help, look for	ideas or arguments.	arguments.
investigation.		look for changes, patterns,	changes, patterns,	ideas of argaments.	argaments.
		similarities and differences	similarities and	Begin to draw conclusions	Draw conclusions based on
		in their data in order to	differences in their data	based on their data and	their data and
I can begin to talk	I can talk about	draw simple conclusions	in order to draw simple	observations, use	observations, use evidence
about what I have	what I have found	and answer questions. With	conclusions and answer	evidence to justify their	to justify their ideas, use
found out.	out.	support, am beginning to	questions. With	ideas, use scientific	scientific knowledge and
		identify new questions	support, identify new	knowledge and	understanding to explain
I can begin to	I can explain how I	arising from the data, make	questions arising from	understanding to explain	their findings.
explain how I	carried out my	new predictions and find	the data, make new	their findings.	
carried out my	enquiry.	ways of improving what	predictions and find	Ö	
enquiry.	,	they have already done.	ways of improving what	Begin to use test results to	Use test results to make
. ,	I can suggest	,	they have already done.	make predictions to set up	predictions to set up
I can begin to	simple changes to	Am beginning to see a	,	further comparatives and	further comparatives and
suggest simple	my enquiry.	pattern in my results.	Can see a pattern in my	fair tests.	fair tests.
changes to my		Am beginning to say what I	results.		
enquiry.		found out, linking cause	Can say what I found	Begin to look for different	Look for different causal
		and effect.	out, linking cause and	causal relationships in	relationships in their data
			effect.	their data and identify	and identify evidence that
		Am beginning to say how I		evidence that refutes or	refutes or supports their
		could make it better.	Can say how I could	supports their ideas.	ideas.
		Am beginning to answer	make it better.	Use their results to	Use their results to identify
		questions from what I have		identify when further tests	when further tests and
		found out.	Can answer questions	and observations are	observations are needed.
			from what I have found	needed.	
		I am beginning to draw	out.		Separate opinion from fact.
		simple conclusions based		Begin to separate opinion	
		on the results of my	I can draw simple	from fact.	Can draw conclusions and
		enquiry.	conclusions based on		identify scientific evidence.
			the results of my	Begin to draw conclusions	Can use simple models.
		I am beginning to answer	enquiry.	and identify scientific	Know which evidence
		my questions using the		evidence.	proves a scientific point.

Vocabulary	Iso some simple	Uso simplo			I am beginning to explain my conclusion using scientific knowledge and understanding. I am beginning to distinguish opinion and facts. I am beginning to use my findings to make predictions and set up further enquiries. I can begin to use abstract models to explain my ideas.	I can distinguish opinion and facts. I can use my findings to make predictions and set up further enquiries I can begin to use abstract models to explain my ideas.
So la	Jse some simple cientific anguage Begin to use come science vords.	Use simple scientific language and some science words. Use comparative	Begin to use some scientific language to talk and, later, write about what they have found out. Begin to use relevant	Use some scientific language to talk and, later, write about what they have found out. Use relevant scientific	Am beginning to read, spell and pronounce scientific vocabulary correctly. Am beginning to use relevant scientific	Read, spell and pronounce scientific vocabulary correctly. Use relevant scientific language. And illustrations to discuss, communicate

Use comparative language with support. 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.	l can use simple scientific language. I can describe what I see. I can compare eg something is longer or shorter.	Begin to use comparative and superlative language. 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.	Use comparative and superlative language 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.	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 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	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 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 eg trends, rogue result, support prediction.
				correct scientific language when appropriate. I am beginning to explain	I can use scientific conventions eg trends, rogue result, support

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. I can say how science helps us in	Begin to know which things in science have made our lives better. Can begin to understand risk in science. I am beginning to know which things in science have made our lives better eg computers in schools, hospitals etc	Knows which things in science have made our lives better. Can understand there is some risk in science. I know some things in science which have made our lives better eg computers in schools, hospitals etc	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 say how science helps us in our daily lives. I can say how science can be dangerous eg electricity can give you a shock.	our daily lives. I can say how science can be dangerous eg electricity can give you a shock.	I can begin to understand risk in science	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						Year 7 / Level 5 Can interpret data from a variety of formats and recognise inconsistencies. Can give explanations for differences in repeated results. Can draw valid conclusions that use more than one piece of supporting evidence.

			I can evaluate my work and make suggestions for improvement.
			Can identify several variables and select the best one/s to investigate.
			Can say why equipment is appropriate to the task.
			Can make suggestions to control risk.
			Can decide which format is best to present data.
			Can use scientific conventions to explain abstract ideas.
			Know the difference between scientific evidence and opinion.
			Understand that people have different ideas about science.
			Can say how science affects me and other people in different ways.
			Understands that science can be used in a positive and ways.
			Can use more than one step to describe a process.

			Can explain scientific ideas in a clear and detailed way.
			Can identify strengths and weaknesses in science models and thoughts.