



Science

Year 5: Spring 1: Topic 1- Out of This World

National Curriculum: Earth & Space

Subject Cultural Capital = understanding subject vocabulary/applying science K & S to different situations
Differentiation= see weekly planning for exceeding, emerging & SEND (please see SEND pupils' IEP's)
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Long term memory development= LAST, LAST, LAST linked to the WALT
Literacy & Numeracy development= see vocabulary banks and vocabulary linked to each lesson/for numeracy see working scientifically column below

Term	Week 2 lessons per week	National Curriculum Statement	WALT	Resources/Use all or some of the following activities to cover this objective	NC/Working scientifically skills developed in the activities	Switched on Science Teacher's Guide reference	Switched on Science resources	Vocabulary
Spring Term: Topic 1 - Out of this world	1	Describe the movement of the Earth and other planets relative to the Sun in the Solar System. Describe the Sun, Earth and Moon as approximately spherical bodies.	1a) WALT: brainstorm what we already know about Earth and Space 1b) WALT: name and describe planets in the Solar System in the correct order from the Sun	1. The Solar System. 2. Modelling the solar system. 3. What is at the centre of the Solar System.	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. Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate.	Pages 10 - 12	Activity Resource 1.1 Activity Resource 1.2 Activity Resource 1.4	Mercury Venus Earth Mars Jupiter Saturn Uranus Neptune

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Spring Term: Topic 1 - Out of this world	2	Describe the movement of the Earth and other planets relative to the Sun in the Solar System. Describe the Sun, Earth and Moon as approximately spherical bodies	2a) WALT: name and describe planets because of their size and movements around the sun 2a) WALT: know that Copernicus and Galileo changed people's ideas	1. Copericus and Galileo	Identify scientific evidence that has been used to support or refute ideas or arguments.	Pages 13 - 14		daytime daylight geocentric Solar System heliocentric Sun Copericus Galileo
Spring Term: Topic 1 - Out of this world	3	Use the idea of the Earth's rotation to explain day and night and the apparent movement of the Sun across the sky.	3a) WALT: say which part of the Earth is in daylight and which part is in darkness 3B) walt: say the Earth is spinning round, which makes it seem like the Sun is moving	1. Explaining day and night. 2. The apparent movement of the sun across the sky.	Take measurements, using a range of scientific equipment, with increasing accuracy and precision taking repeat readings when appropriate.	Pages 15 - 17		Night-time darkness orbit planet moon celestial celestial body orbits star planets astronomical energy

Spring Term: Topic 1 - Out of this world	4	<p>D Use the idea of the Earth's rotation to explain day and night and the apparent movement of the Sun across the sky.</p> <p>Describe the movement of the Moon relative to the Earth.</p>	<p>4a) use the Night and day card clock to say what time it is in other countries when they are given the time in the UK</p> <p>4b) know the Moon orbits the Earth and describe the changes in the Moon</p>	<p>3. What is a time zone? 4. The Moon.</p>	<p>Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate</p>	Pages 17 - 18		<p>Time zone Darkness Daylight Night-time 24-hour time zones</p>
Spring Term: Topic 1 - Out of this world	5	<p>Describe the movement of the Moon relative to the Earth.</p>	<p>5a) walt: use a model to explain how the phases of the moon occur</p> <p>5b) walt: produce a line graph and use their data to ask new questions</p>	<p>5. Biscuit moons 6. Moon crater investigations</p>	<p>Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate. Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs L.O. Use test results to make predictions to set up further comparative and fair test</p>	Pages 18 - 19		<p>Phases full moon half crescent waxing waning</p>
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Spring Term: Topic 1 - Out of this world	6	Describe the movement of the Earth and other planets relative to the Sun in the Solar System.	6a) walt: research information and describe similarities and differences between planets Assessment	7. Become an expert - research a planet.	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.	Page 20	
Assessment				7. Become an expert - research a planet.		Page 20	



Science

Year 5: Autumn 1: Topic 2- Material World

National Curriculum: Properties and Changes of Materials

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Term	Week 2 lessons per week	National Curriculum Statement	WALT	Resources/Use all or some of the following activities to cover this objective	NC/Working scientifically skills developed in the activities	Switched on Science Teacher's Guide reference	Switched on Science resources	Vocabulary
Autumn Term: Topic 2 - Material World	1	Compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal) and response to magnets. Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic.	1a. walt: brainstorm what we already know about changes in materials 1b.walt: compare and describe everyday materials according to their properties including hardness, transparency solubility, conductivity	1. Sorting materials. 2. Why that material?	<i>Sorting</i> <i>Identifying, classifying describing and grouping in a range of scientific contexts and fields</i> <i>Communicating</i> <i>Reporting on findings from enquires through oral and writing explanations, justifying conclusions, forming theories to support findings</i>	Pages 24 – 25	Activity Resource 2.1	electrical conductor rigid thermal insulator tough transparency hardness

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Autumn Term: Topic 2 - Material World	2	Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic	2a. walt: sort everyday materials according to their properties including hardness, solubility, transparency and conductivity 2b. walt: explain which materials are best suited for a product	3. Testing Materials - Which material makes the strongest carrier bag?	<i>Communicating</i> Reporting on findings from enquires through oral and writing explanations, justifying conclusions, forming theories to support findings <i>Sorting</i> Identifying, classifying describing and grouping in a range of scientific contexts and fields	Pages 25 - 26		electrical conductor rigid thermal insulator tough transparency
Autumn Term: Topic 2 - Material World	3	Compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal) and response to magnets. Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic.	3a. walt: identify and explain which materials are thermal conductors and insulators 3b. walt: compare and sort materials according to their conductivity (electrical and thermal)	4. Testing materials - What is a thermal conductor? 5. Testing materials - Which materials are thermal conductors and which are thermal insulators? 6. Testing testing.	Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate. Record data and results of increasing complexity using scientific diagrams and labels,	Pages 27 - 29	Activity Resource 2.2	electrical conductor rigid thermal insulator tough

					classification keys, tables, scatter graphs, bar and line graphs. Use test results to make predictions to set up further comparative and fair tests.			
Term	Week 2 lessons per week	National Curriculum Statement	WALT	Resources/Use all or some of the following activities to cover this objective	NC/Working scientifically skills developed in the activities	Switched on Science Teacher's Guide reference	Switched on Science resources	Vocabulary
Autumn Term: Topic 2 - Material World	4	Know that some materials will dissolve in liquid to form a solution and describe how to recover a substance from a solution.	4a) Walt: identify the factors that affect dissolving 4b)walt: explain how to recover a substance from a solution	1. Searching for a solution. 2. Dissolving sugar	Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate. 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.	Pages 30 - 32	Activity Resource 2.3	Dissolve Solution Solute Mixture Stirring Insoluble solvent

Autumn Term: Topic 2 - Material World	5	Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating	5a) walt: how to separate materials through sieving 5b) walt: how to separate materials through filtering 3. Sieving. 4. Filtering.	Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. Use test results to make predictions to set up further comparative and fair tests.	Pages 32 - 33		Dissolve Solution Solute Sieving Filtering Mixture Insoluble solvent
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Autumn Term: Topic 2 - Material World	6	Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating.	6a) walt: how to separate materials through evaporating 6b) walt: how to separate materials through filtering, sieving and evaporating 5. Evaporating. 6. Sort this out!	Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. 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.	Pages 34 - 35		Dissolve Solution Solute Evaporating Mixture Insoluble solvent
Assessment			6. Testing Testing 7. Growing Crystals		Pages 29 / 36	Activity Resource 2.4	



Science

Year 5: Summer 1: Topic 3- The Circle of Life

National Curriculum: Living Things & Their Habitats

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Summer Term: Topic 3 - Circle of life	1	Describe the life process of reproduction in some plants and animals.	1a. walt: brainstorm what we already know about living things and their habitat 1b) explain how a plant is pollinated	1. Plant reproduction.	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.	Pages 41 - 42	Activity Resource 3.1	Pollinated Male part of a plant Female part of a plant Anther Ovules Eggs Stigma Stamen anther
Summer Term: Topic 3 - Circle of life	2	Describe the life process of reproduction in some plants and animals.	2a) walt: describe how the different plants create new plants 2b) walt: carry out and explain how to take plant cuttings and why this is useful	2. New plants from old. 3. Plants from cuttings.	<i>Communicating</i> <i>Reporting on findings from enquires through oral and writing explanations, justifying conclusions, forming theories to support findings</i> <i>Testing</i> <i>Conducting fair tests, explaining which variables need to be controlled and why, recognising when further tests are needed.</i>	Pages 42 - 43		Pollinated Male part of a plant Female part of a plant Anther Ovules Eggs Stigma Stamen Anther Bulb Tuber New plant asexual
Term	Week 2 lessons per week	National Curriculum Statement	WALT	Resources/Use all or some of the following activities to cover this objective	NC/Working scientifically skills developed in the activities	Switched on Science Teacher's Guide reference	Switched on Science resources	Vocabulary

Summer Term: Topic 3 - Circle of life	3	Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird.	<p>3a) walt:describe the life cycle of a hen</p> <p>3b) describe the life cycle of a butterfly</p>	<p>1. Bird life cycles. 2. Butterfly life cycle. 3. Life cycle of a frog.</p>	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.	Pages 44 - 46	<p>fertilisation: gestation larva: parents</p> <p>adult young metamorphosis: ovary sexual reproduction female male sperm</p>
Summer Term: Topic 3 - Circle of life	4	Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird. Describe the life process of reproduction in some plants and animals.	<p>4a) talk about key similarities and differences between the life cycle of a frog and another animal</p> <p>4b) use the data to describe what happens when lots or small amounts of sperm is produced</p>	<p>1. Why do some animals lay so many eggs? 2. Unusual life cycles.</p>	Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate. Use test results to make predictions to set up further comparative and fair tests.	Pages 47 - 49	<p>Activity Resource 3.2</p> <p>Life cycle Tapoles Frog metamorphosis</p>
Summer Term: Topic 3 - Circle of life	5		<p>5a) walt: research and represent the life cycle</p> <p>5b) walt: talk about why different</p>	3. Endangered animals	identify scientific evidence that has been used to support or refute ideas or arguments.	Page 49	<p>Activity Resource 3.3</p> <p>Extinct conservationist</p>

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Summer Term: Topic 3 - Circle of life	6		<p>animals might become extinct</p> <p>6a) walt: use their research to make decisions about zoo</p> <p>6b) walt: explain the ideas of their scientists and what they did to find out about animals</p> <p>4. For and against Zoos. 5. Meet the scientists. 6. We are conservationists.</p>	<p>Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs. Identify scientific evidence that has been used to support or refute ideas or arguments</p>	Pages 50 - 52	Activity Resource 3.4	
Assessment			assessment	6. We are conservationists.	Page 52		



Science

Year 5: Spring 2 :Topic 4- Let's Get Moving

National Curriculum: Forces

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Spring Term: Topic 4 - Let's get moving	1	Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object.	1a. walt: brainstorm what we already know about Forces 1b) walt: make links between the force of gravity and its effect on objects 1. Investigating gravity. 2. Galileo and Newton.	Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. Use test results to make predictions to set up further comparative and fair tests. Identify scientific evidence that has been used to support or refute ideas or arguments.	Pages 57 - 59	Activity Resource 4.1 Activity Resource 4.2	force meter: gravity: Newton force: weight mass
Term	Week 2 lessons per week	National Curriculum Statement	WALT Resources/Use all or some of the following activities to cover this objective	NC/Working scientifically skills developed in the activities	Switched on Science Teacher's Guide reference	Switched on Science resources	Vocabulary
Spring Term: Topic 4 - Let's get moving	2	Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object. Identify the effects of air resistance, water resistance and friction, that act between moving surfaces.	2a) walt: ask questions and carry out a fair test including repeat readings 2b) walt: use data to draw conclusions and explain why they can trust their results 1. Why is gravity important? 2. falling cupcakes case.	Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. 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 displ. Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate.	Pages 60 - 62	Activity Resource 4.3	force meter: gravity: Newton force: weight mass

					Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs. Use test results to make predictions to set up further comparative and fair tests. ays and other presentations.			
Term	Week 2 lessons per week	National Curriculum Statement	WALT	Resources/Use all or some of the following activities to cover this objective	NC/Working scientifically skills developed in the activities	Switched on Science Teacher's Guide reference	Switched on Science resources	Vocabulary
Spring Term: Topic 4 - Let's get moving	3	Identify the effects of air resistance, water resistance and friction, that act between moving surfaces.	3a) walt: explain how air resistance slows a parachute down 3b) walt: explain friction is a force when any two things rub against each other	1. Parachutes 2. What is friction?	Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate	Pages 63 - 65		air resistance: force meter: friction: the force gravity: Newton force magnetic force reliable

Spring Term: Topic 4 - Let's get moving	4	Identify the effects of air resistance, water resistance and friction, that act between moving surfaces.	<p>4a) walt: carry out a comparative test including repeat readings</p> <p>4b) walt: understand that water resistance is a force that can slow objects down</p>	<p>1. . The big trainer test.</p> <p>2. Friction search on my bike.</p> <p>3.. Force of water.</p>	Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate. Use test results to make predictions to set up further comparative and fair tests. 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.	Pages 66 - 67	friction: gravity: Newton force magnetic force reliable water resistance	
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Spring Term: Topic 4 - Let's get moving	5	Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.	<p>5a) walt: sort the objects and can describe how each one allows them to use a small force but have a bigger effect (force)</p>	<p>1. What is a machine?</p> <p>2. Make a simple see-saw - a lever</p> <p>3. Coat hanger catapult.</p>	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. Use test results to make predictions to set up further comparative and fair tests. Take measurements, using a range of scientific equipment,	Pages 68 - 70	Activity Resource 4.4	Simple machine Efficient Levers First, second class pivot

			5b) walt: understand how changing the length of a lever can make something easier to move	with increasing accuracy and precision, taking repeat readings when appropriate.			
Spring Term: Topic 4 - Let's get moving	6	Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.	6a) walt: explain how a pulley system works: they know a smaller force has a greater effect 6b) walt: describe how a small movement at the pedal is transferred to a large movement in the wheel.	4. Using Pulleys. 5 Use a pulley to do a job. 6. Gears. 7. Maths in Gears Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate.	Pages 71 - 72	Activity Resource 4.5	pulley efficient
Spring Term: Topic 4 - Let's get moving	7	Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.	assessment	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. Bring in objects that have gears such as a bicycle, hand rotary whisk and children's toys so that children can explore the relationship between the cogs and how they move.	Pages 72 - 73	Activity Resource 4.6	gears



Science

Year 5: Summer 2: Topic 5- Growing Up and Growing Old

National Curriculum: Animals Including Humans

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Summer Term: Topic 5 - Growing up and growing old	1	Describe the changes as humans develop to old age.	1a. walt: brainstorm what we already know about Growing Up and Growing Old 1b)walt: describe the changes from a baby to old age.	1. Growing up?	<i>Observing</i> Observing and identifying connections and causal relationships <i>Assessing</i> Reading, writing and using a range of scientific terminology <i>Communicating</i> Reporting on findings from enquires through oral and writing explanations, justifying conclusions, forming theories to support findings	Pages 79 - 80		adolescence: adolescent: teenager adult
Summer Term: Topic 5 - Growing up and growing old	2	Describe the changes as humans develop to old age.	2a) walt: compare scans and describe changes over time 2b) walt: describe the gestation period for different animals and conclude that the bigger the animal the	2. How does a baby develop 3. Gestation periods of different animals	<i>Sorting</i> Identifying, classifying describing and grouping in a range of scientific contexts and fields <i>Assessing</i> Reading, writing and using a range of scientific terminology <i>Communicating</i> Reporting on findings from enquires through oral and writing explanations, justifying conclusions, forming theories to support findings	Pages 80 - 81	Activity Resource 5.1	adolescence: adolescent: teenage gestation period menstruation: a monthly pregnant puberty

			longer the gestation period					
Summer Term: Topic 5 - Growing up and growing old	3	Describe the changes as humans develop to old age.	3a) walt: describe visually how the child has changed and can compare to how they have changed 3b) describe the key milestones from birth onwards	1. How do we change? 2. When can you do these things?	Recording Recording data and results of increasing complexity, using labelled diagrams, keys	Pages 82 - 83	Activity Resource 5.2	adolescence: adolescent: teenage gestation period menstruation: a monthly pregnant puberty
Term	Week 2 lessons per week	National Curriculum Statement	WALT	Resources/Use all or some of the following activities to cover this objective	NC/Working scientifically skills developed in the activities	Switched on Science Teacher's Guide reference	Switched on Science resources	Vocabulary
Summer Term: Topic 5 - Growing up and growing old	4	Describe the changes as humans develop to old age.	4a) walt: talk about how being a teenager is different to a younger child	3. Being a teenager	Communicating Reporting on findings from enquires through oral and writing explanations, justifying conclusions, forming theories to support findings	Pages 83 -84		
Summer Term: Topic 5 - Growing up and growing old	5	Describe the changes as humans develop to old age.	5a) walt: gather and use their data to draw conclusions with their own idea of what age someone becomes old	1. How old is old? 2. How does it feel to get old?	Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs. Report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and	Pages 85 - 86	Activity Resource 5.3 Activity Resource 5.4	life expectancy: adult arthritis

			5b) walt: talk about elderly people and show empathy with how an elderly person might feel as they carry out the practical activity	written forms such as displays and other presentations.				
Summer Term: Topic 5 - Growing up and growing old	6	Describe the changes as humans develop to old age.	6a) walt: describe the changes as people age 6b) walt: create a graph and draw conclusions using the data presented	3. What do older people think about getting old? 4. Live forever	Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. Identify scientific evidence that has been used to support or refute ideas or arguments.	Page 86 - 87	Activity Resource 5.5	Conclusion Graph data
Assessment				3. Gestation periods of different animals		Pages 80 - 81	Activity Resource 5.1	



Science

Year 5: Autumn 2: Topic 6- Amazing Changes

National Curriculum: Working Scientifically

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Autumn Term: Topic 6 - Amazing changes	1	Explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda.	1a) walt: brainstorm what we already know changes in material 1b) walt: explain what caused the change and why it is irreversible	1. Elephant's toothpaste	Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. 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.	Pages 91 - 92		reaction new Material Irreversible Reversible acid

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Autumn Term: Topic 6 - Amazing changes	2	Explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda.	2a) walt: identify changes that result in new materials 2b) walt: know that a new substance has been made so this is an irreversible change	2. Inflating a balloon. 3. Volcanic eruption.	Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate. Use test results to make predictions to set up further comparative and fair tests.	Pages 92 - 94	Activity Resource 6.1	Reaction new material irreversible reversible acid
Autumn Term: Topic 6 - Amazing changes	3	Explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda.	3a) walt: explain that a new material is made and that the process is irreversible	4. Making plastic	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.	Page 95		reaction New material irreversible reversible
Autumn Term: Topic 6 - Amazing changes	4	Explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda.	4a) walt: understand that rust is an irreversible change	5. Investigating rust.	Use test results to make predictions to set up further comparative and fair tests.	Page 96		Rust Reaction New Material Irreversible Reversible

			4b)walt: . explain that rust is a new material and is an irreversible change					
Term	Week 2 lessons per week	National Curriculum Statement	WALT	Resources/Use all or some of the following activities to cover this objective	NC/Working scientifically skills developed in the activities	Switched on Science Teacher's Guide reference	Switched on Science resources	Vocabulary
Autumn Term: Topic 6 - Amazing changes	5	Explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda.	5a) Walt: understand that burning is an irreversible change 5b) walt: explain that burning is an irreversible change	6. Burning 1. Burning fabrics	Use test results to make predictions to set up further comparative and fair tests. 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.	Pages 97 - 99	Activity Resource 6.2	Irreversible reaction burning material
Autumn Term: Topic 6 - Amazing changes	6		6a) walt: apply our knowledge and understanding of properties of materials	2. New materials	Identify scientific evidence that has been used to support or refute ideas or arguments.	Page 99		Material Properties Irreversible reaction burning
Assessment				2. Inflating a balloon. 4. Making plastic. 6. Burning fabrics		Pages 92 / 95 / 98	Activity Resource 6.1 Activity Resource 6.2	