



# Science

## Year 2: Autumn 1: Topic 1-Healthy Me

### National Curriculum: Animals Including Humans

**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)**  
**Minimum expectations to check for understanding during lessons= targeted questioning/mini whiteboards/peer talk/self-assessment**  
**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
Autumn Term: Topic 1 - Healthy Me	1	Find out about and describe the basic needs of animals, including humans, for survival (water, food and air). Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene	WALT: 1a) brainstorm what we know about animals including humans  1b) WALT: know that being happy is important to how we feel	1. What makes me happy?	Communicating Discussing what has been observed and recorded  Assessing Reading and spelling simple scientific terms	Pages 09 - 10		Exercise Water Food Air Animals humans
Autumn Term: Topic 1 - Healthy Me	2	Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene.	2a)WALT: link the idea of exercise with being healthy  2b) say how different	2. How do we like to keep fit? 3. How does exercise help me?	Gather and record data to help in answering questions.	Pages 11 - 12		air disease exercise food germs healthy hygiene hygienic

			activities help parts of the body					
Autumn Term: Topic 1 - Healthy Me	3	Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses	3a) WALT: name materials and say why they have been used  3b) walt: plan and carry out a test with helmets and link use of material to the result	4. Keeping fit challenge 5. Safe cyclists. 6. Design, make and test a helmet.	Perform simple tests. Observe closely, using simple equipment. Use their observations and ideas to suggest answers to questions.	Pages 12 - 13	suitability Material Plastic Glass Brick Rock Paper Cardboard	
<b>Term</b>	<b>Week 2 lessons per week</b>	<b>National Curriculum Statement</b>	<b>WALT</b>	<b>Resources/Use all or some of the following activities to cover this objective</b>	<b>NC/Working scientifically skills developed in the activities</b>	<b>Switched on Science Teacher's Guide reference</b>	<b>Switched on Science resources</b>	<b>Vocabulary</b>
Autumn Term: Topic 1 - Healthy Me	4	Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene.	4a) WALT: understand that we need food to live, grow, be active and stay healthy  4b) WALT: identify the names of different foods and sort them	1. Why do we need food? 2. Sorting food	Identify and classify	Pages 14 -15	live grow stay healthy be active	
Autumn Term: Topic 1 - Healthy Me	5	Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene.	5a) walt: explain why foods are healthy 5b) walt: gather and present data about eating the right	3. Favourite snack. 4. Swapping snacks	Gather and record data to help in answering questions.	Pages 15-16	Data Balanced diet Fat Sugar Protein Starchy food	

			amount of different foods				
Autumn Term: Topic 1 - Healthy Me	6	Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene.	6a) walt: compare the effect of fruit kebab and 'other snacks' on their health Assessment	1. Spraying germs. 2. Snot trail.	Perform simple tests	Pages 17 - 18	Activity Resource 1.1
Assessment				4. Swapping snacks		Page 16	



# Science

## Year 2: Autumn 2: Topic 2-Materials Monster

### National Curriculum: Everyday Materials

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**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
Autumn 2 Term: Topic 2 - Materials Monster	1	Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses.	1a) WALT: brainstorm what we know about everyday materials  1b) WALT: the materials that we use to make things	1. Feeding time.	Identify and classify	Pages 22-23		<b>Materials Objects</b> wood, metal, plastic, glass, brick, rock, paper
AutumnTerm: Topic 2 - Materials Monster	2	Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses.	2a) WALT: identify and sort materials 2b) walt: : identify and sort materials and	2. Sorting for Materials Monster 3. Talk to Materials Monster.	Observe closely, using simple equipment. Identify and classify.	Page 24	Activity Resources 2.1	Property sort absorbent / bend / brittle / bumpy / card / change /

			say why some materials are used					concrete / dull / elastic / fabric / flexible / glass / hard / man-made materials / metal / natural materials / opaque / paper / plastic / recycle / rough / rubber / shiny / smooth
<b>Term</b>	<b>Week 2 lessons per week</b>	<b>National Curriculum Statement</b>	<b>WALT</b>	<b>Resources/Use all or some of the following activities to cover this objective</b>	<b>NC/Working scientifically skills developed in the activities</b>	<b>Switched on Science Teacher's Guide reference</b>	<b>Switched on Science resources</b>	<b>Vocabulary</b>
Autumn Term: Topic 2 - Materials Monster	3	Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses	3a) WALT: identify and classify materials and record their observations	4. Taking Materials Monster outside. 5. Take the Materials Monster home.	Identify and classify. Observe closely, using simple equipment.		Activity Resources 2.2, 2.3 and 2.4	<b>Classify Property</b>
Autumn 2 Term: Topic 2 - Materials Monster	4	Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses.	4a)WALT: identify and say why the materials they have chosen are unsuitable	1. Silly Materials Monster Book.	Communicating Discussing what has been observed and recorded	Page 27		<b>Unsuitable Suitable</b>
Autumn Term: Topic 2 - Materials Monster	5	Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.	5a) WALT: know that it is the material that they can squash 5B) walt: know how objects	2. Squash, bend, twist, stretch	Testing Performing simple tests to find answers to questions	Page 28		<b>Forces</b> squashing, bending, twisting and stretching

			made from some materials can change shape				
Autumn Term: Topic 2 - Materials Monster	6	Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses.	6a) identify and say why the materials they have chosen are suitable 6b) Assessment	3. Make your own Materials Monster.	Observing Observing using simple equipment, noticing patterns and relationships  Communicating Discussing what has been observed and recorded  Testing Performing simple tests to find answers to questions	Page 29	
Assessment				3. Make your own Materials Monster.		Page 29	



# Science

## Year 2: Spring 1: Topic 3-Squash, Bend, Twist and Stretch

### National Curriculum: Everyday 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
Spring Term: Topic 3 - Squash, Bend,	1	Find out how the shapes of solid objects made from some materials can	1a. walt: brainstorm what we already know about Squash, Bend, Twist and stretch	1. Flexible me	Assessing Reading and spelling simple scientific terms  Communicating	Page 32		: Twist Squash Bend

Twist and Stretch		be changed by squashing, bending, twisting and stretching.	1b) walt: understand the words(squash,bend,twist,stretch) and link them to create body movements	Discussing what has been observed and recorded  Researching Finding out about scientific ideas			squeeze / stretch	
Spring Term: Topic 3 - Squash, Bend, Twist and Stretch	2	Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.	2a) walt: choose the right word to change the shape of the object  2b) walt: link the ability to change the shape of an object to the material it is made from	2. Squash me, bend me, twist me, stretch me. 3. Sort me	Identify and classify.	Pages 33 - 34	Material Mass Force elastic / pull / push /	
<b>Term</b>	<b>Week 2 lessons per week</b>	<b>National Curriculum Statement</b>	<b>WALT</b>	<b>Resources/Use all or some of the following activities to cover this objective</b>	<b>NC/Working scientifically skills developed in the activities</b>	<b>Switched on Science Teacher's Guide reference</b>	<b>Switched on Science resources</b>	<b>Vocabulary</b>
Spring Term: Topic 3 - Squash, Bend, Twist and Stretch	3	Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.	3a) walt: can say what they have to do to stretch, twist, bend and squash something  4a) walt: use scientific words to describe how they changed the shape	4. Balloon shapes	Identify and classify.	Page 34	<b>shape</b>	
Spring Term: Topic 3 -	4	Find out how the shapes of solids		6. Stretchy socks.	Testing	Page 34	<b>Test Data</b>	

Squash, Bend, Twist and Stretch		objects made from some materials can be changed by squashing, bending, twisting and stretching.	4B) carry out a test and use data to answer their question	Performing simple tests to find answers to questions  Questioning Asking simple questions and being able to express them			<b>Fair test</b>
Spring Term: Topic 3 - Squash, Bend, Twist and Stretch	5		5a) say when they are stretching and squashing	7. Stretch and squash		Pages 35-36	
Spring Term: Topic 3 - Squash, Bend, Twist and Stretch	6	Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.	6a) explain that they squash the bottle, then the air and make the rocket mouse move  Assessment	8. Flying mouse	Performing simple tests. Gathering and recording data to help in answering questions.	Pages 36-37	Activity Resources 3.1 and 3.2
Assessment				6.Stretchy socks 8. Flying mouse		Pages 35-37	



## Science

### Year 2: Summer 1: Topic 4-Our Local Environment

### National Curriculum: Animals Including Humans

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**Minimum expectations to check for understanding during lessons= targeted questioning/mini whiteboards/peer talk/self-assessment**  
**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**  
**In KS1 only= Pupils are entitled to two 45min lessons per week**

Term	Week 2 lessons	National Curriculum Statement	WALT	Resources/Use all or some of the following activities	NC/Working scientifically skills developed in the activities	Switched on Science Teacher's	Switched on Science resources	Vocabulary
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	per week		to cover this objective		Guide reference			
Summer Term: Topic 4 - Our local environment	1	Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other.	1a. walt: brainstorm what pupils know about our local environment  1b. walt: identify things that are living, dead or have never been alive	1.living or not . .	Observing Observing using simple equipment, noticing patterns and relationships	Pages 43 - 44	environment alive dead never alive reproduce move grow breathe non-living living	
Summer Term: Topic 4 - Our local environment	2	Identify and name a variety of plants and animals in their habitats, including micro-habitats.	2a) walt: identify where living things live 2b) walt: know that microhabitats provide food, shelter	2. My habitat 3. Find a microhabitat .	Observing Observing using simple equipment, noticing patterns and relationships  Researching Finding out about scientific ideas	Page 44	micro habitat habitat environment alive dead never alive reproduce move grow breathe non-living living	
Summer Term: Topic 4 - Our local environment	3	Identify and name a variety of plants and animals in their habitats, including microhabitats. Gather and record data to help in answering questions.	3a) identify plants and animals in their habitats 3b) explain why plants and animals live in a habitat	4. Micro-habitat survey 5. Animals and plants in different habitats.	Communicating Discussing what has been observed and recorded	Page 44 - 45	micro habitat habitat environment omnivore carnivore amphibian herbivore prey predator producer consumer	
<b>Term</b>	<b>Week 2 lessons</b>	<b>National Curriculum Statement</b>	<b>WALT</b>	<b>Resources/Use all or some of the following activities</b>	<b>NC/Working scientifically skills developed in the activities</b>	<b>Switched on Science Teacher's</b>	<b>Switched on Science resources</b>	<b>Vocabulary</b>

	per week		to cover this objective		Guide reference		
Summer Term: Topic 4 - Our local environment	4	Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other.	4a) walt: understand that habitats provide for the basic needs of living things 4b) walt: understand that plants and animals depend on each other in their habitat 5. Make a micro-habitat.	Communicating Discussing what has been observed and recorded  Researching Finding out about scientific ideas	Page 45		omnivore carnivore amphibian herbivore prey predator producer consumer
Summer Term: Topic 4 - Our local environment	5	Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name the different sources of food.	5a) describe what animals eat 5b) walt: create a simple food chain (two parts) to show how animals obtain food 1. Food chain pairs. 2. Extending the food chain.	Recording Gathering and recording information from observations and tests e.g. tally charts  Observing Observing using simple equipment, noticing patterns and relationships  Communicating Discussing what has been observed and recorded	Pages 46- 47		prey predator food chain Producer consumer
Summer Term: Topic 4 - Our local environment	6	Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name the different sources of food.	6a) walt: extend simple food chain to show how animals obtain food 3. Food chain mobile. 4. Food chain hunt	Recording Gathering and recording information from observations and tests e.g. tally charts  Observing Observing using simple equipment, noticing patterns and relationships  Communicating Discussing what has been observed and recorded	Page 47		prey predator food chain Producer consumer



# Science

## Year 2: Spring 2: Topic 5-Young Gardeners

### National Curriculum: Plants

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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
Spring Term: Topic 5 - Young gardeners	1	Identify and name a variety of plants and animals in their habitats, including microhabitats	1a) walt: brainstorm what pupils know about Plants  1b) walt: name common plants in the school grounds.	1. What is growing in our school grounds?	Identify and classify using simple equipment	Page 51		
Spring Term: Topic 5 - Young gardeners	2	Observe and describe how seeds and bulbs grow into mature plants.	2a) walt: name common plants	2. What shall we grow?	Ask simple questions and recognise that they	Page 52		Bulb: Corms: Corms are not made up of scales, they do

			<p>and flowers using identification resources</p> <p>2b) walt: describe how the seed grows and use scientific language</p>	3. What do seeds need for germination?	can be answered in different ways			<p>not have the fleshy leaves you would find on a bulb and the bud is on top of the corm. Germinate: roots shoots. Properties: Stem: Tuber: flower /fruit / germinate / germination / fruit / health / leaf / plant / root / seed / seedling /</p>
<b>Term</b>	<b>Week 2 lessons per week</b>	<b>National Curriculum Statement</b>	<b>WALT</b>	<b>Resources/Use all or some of the following activities to cover this objective</b>	<b>NC/Working scientifically skills developed in the activities</b>	<b>Switched on Science Teacher's Guide reference</b>	<b>Switched on Science resources</b>	<b>Vocabulary</b>
Spring Term: Topic 5 - Young gardeners	3	Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy	3b) walt: plan, carry out their test and use standard measures to record growth	3. What do seeds need for germination?	Perform simple tests Observe closely, using simple equipment Perform simple tests and use observations and ideas to suggest answers to questions	Page 53	Activity Resource 5.1	<p>fleshy leaves</p> <p>healthy Germinate: roots shoots. / flower /fruit / germinate / germination / fruit / health / healthy / leaf /</p>

Spring Term: Topic 5 - Young gardeners	4	Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy. Compare the suitability of a variety of materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses.	4a) walt: describe that plants need water, light and right temperature to grow and plan, carry out a test and use standard measures  4b) walt: make newspaper pots and understand they are recycling newspaper	4. What do plants need to grow?  5. Newspaper plant pots	Observe closely, using simple equipment Perform simple tests Use observations and ideas to suggest answers to questions	Pages 54 - 55		Water Light Air Temperature Carbon dioxide Warmth  properties / materials recycling <b>clean planet landfill</b>
<b>Term</b>	<b>Week 2 lessons per week</b>	<b>National Curriculum Statement</b>	<b>WALT</b>	<b>Resources/Use all or some of the following activities to cover this objective</b>	<b>NC/Working scientifically skills developed in the activities</b>	<b>Switched on Science Teacher's Guide reference</b>	<b>Switched on Science resources</b>	<b>Vocabulary</b>
Spring Term: Topic 5 - Young gardeners	5	Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.	5a) walt: understand and apply their knowledge of how to grow a seed into a healthy plant to bulbs  5b)walt: observe, measure and	6. Grow a salad. 7. Growing bulbs.	Observe closely, using simple equipment. Gathering and recording data to help in answering questions.	Page 55- 56	Activity Resource 5.2	<b>Measure Standard Non-standard Healthy</b>

			record plant growth.				
Spring Term: Topic 5 - Young gardeners	6	Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.	6a) walt: plant and decide conditions for growth, e.g. amount of light, warmth and water  6b) walt: decide what to observe and use standard measures, how to record and use data to explain the plant growth.	8. Quirky container contest.	Observe closely, using simple equipment. Use their observations and ideas to suggest answers to questions gathering and recording data to help in answering questions.	Page 57	<b>data</b>
Assessment			asesessment	8. Quirky container contest.		Page 57	



# Science

## Year 2: Summer 2: Topic 6- Little Masterchefs

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Summer Term: Topic 6 - Little Masterchefs	1	Find out about, and describe the basic needs of animals, including humans, for survival (water, food and air). Describe the importance for humans of exercise, eating the right amounts of different types of food and hygiene. Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses.	1a) walt: brainstorm what pupils know about the rules for working with food in the kitchen  1b) sort objects according to a variety of criteria	c rules for working with food in the kitchen	Identify and classify.	Pages 61 - 63	Activity Resource 6.1	/ bread / change / chopping board / cook / dehydrate / digest / energy / fork fruit / frying pan / grow / heat / hot / hygiene /

								ingredients / knife / oven / rainbow / saucepan / spoon / strong / temperature / utensils / vegetables / whisk
Summer Term: Topic 6 - Little Masterchefs	2	Describe the importance for humans of exercise, eating the right amounts of different types of food and hygiene.	2a) say why they have put items in different categories	6. Sort the shopping - keeping food fresh and safe. 7. Sort the shopping - eating and drinking well.	Identify and classify.	Pages 63 - 64		
<b>Term</b>	<b>Week 2 lessons per week</b>	<b>National Curriculum Statement</b>	<b>WALT</b>	<b>Resources/Use all or some of the following activities to cover this objective</b>	<b>NC/Working scientifically skills developed in the activities</b>	<b>Switched on Science Teacher's Guide reference</b>	<b>Switched on Science resources</b>	<b>Vocabulary</b>
Summer Term: Topic 6 - Little Masterchefs	3	Describe the importance for humans of exercise, eating the right amounts of different types of food and hygiene.	3a) follow hygiene rules to make their own pizzas by making healthy food choices  3b) design and make their own salad and explain their choices	1. Design, prepare and cook a vegetable pizza-licious. 2. Design your own salad.	Observe closely, using simple equipment.	Pages 65 - 67		<b>hygiene</b>
Summer Term: Topic 6 - Little Masterchefs	4	Describe the importance for humans of exercise, eating the right amounts of different types of food and hygiene.		3. Carrot and courgette muffins. 4. Bread tasting.	Observe closely, using simple equipment. Identify and classify.	Pages 67 - 68	Activity resources 6.2 and 6.3	<b>Healthy</b>

			4a) say what they have used to make their muffins healthy food				
Summer Term: Topic 6 - Little Masterchefs	5	Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses.	<b>5a)use your knowledge of properties of materials to support their choices for the best wrapper</b>	5. How can we keep our muffins and bread fresh?	Perform simple tests. Using their observations and ideas to suggest answers to questions. Gather and record data to help answering questions	Pages 68- 69	<b>properties material</b>
Summer Term: Topic 6 - Little Masterchefs	6	Describe the importance for humans of exercise, eating the right amounts of different types of food and hygiene.	6a) explain what they have found out about different fruits and why fruit is healthy food	6. Fruit choice. 7. Design and make a sandwich.	<p>Researching Finding out about scientific ideas</p> <p>Observing Observing using simple equipment, noticing patterns and relationships</p> <p>Communicating Discussing what has been observed and recorded</p>	Page 69	Activity Resources 6.4 and 6.5 <b>Exercise</b>
Assessment				7. Design and make a sandwich.		Page 69	