

**KS4 -Grow it**

**Topic: Reduce, Reuse, Recycle**

Written by S Spaul 2023

**RRS Articles:** This unit of work is linked **Article 6** of the UN Convention on the Rights of the Child.

*"I should be supported to live and grow."*

**RRS Articles:** This unit of work is linked **Article 29** of the UN Convention on the Rights of the Child.

*"I have the right to an education which develops my personality, respect for others' rights and the environment."*

<p><b>Subject curriculum intent:</b></p>	<p>We want our pupils to develop an increased awareness of the environment, sustainability and global issues related to food production. Through this knowledge pupils will develop a sense of responsibility and understanding around personal contributions to the global community. We want pupils to be able to access a range of outdoor activities, areas and growing spaces that promote confidence and self-esteem thus promoting positive physical, emotional and healthy food choices in adulthood. Grow it will also act as a vehicle to support embedding science, literacy and numeracy skills. We want our pupils to develop the confidence to engage with community groups involved in local gardens and to have the ability to grow foods to prepare and eat at home.</p>		
<p><b>End of KS3 intent/outcome</b></p>	<p><b>End of KS4 intent/outcome</b></p>	<p><b>End of KS5 intent/outcome</b></p>	
<p>Pupils engage with their outdoor community environments. Pupils understand that food is grown from plants. Pupils have developed basic skills around plant care such as sowing, caring for and harvesting foods. Pupils begin to recognise food waste and understand the positive effects of composting in the local environment. Pupils engage with their learning through cross curricular activities such as art, English, maths &amp; science.</p>	<p>Pupils broaden their knowledge of their environment both locally and globally. Pupils understand the positive impact that growing food has on sustainability, health and the environment, locally and globally. Pupils develop an appreciation for the importance of food and farming across history and culture. Pupils are able to further develop and transfer skills related to gardening and growing their own foods through an onsite allotment. Pupils know how to use harvested foods within cookery.</p>	<p>Pupils have a good knowledge of the environmental impact of food growth across the globe. Pupils are able to apply practical skills and knowledge of food growth to a 'vocational environment' in the form of an offsite community allotment 'The Plot'. Pupils understand how to harvest, prepare and cook a wide range of grown foods through collaborations with school enterprise project 'From Plot to Plate'. Pupils are aware of local gardening groups and community areas available to them. Pupils understand the importance of fresh food for a healthy diet and have the confidence to grow food at home.</p>	
<p><b>Intent for this topic:</b></p>	<p>The pupils will learn about the range of materials needed within an allotment. Pupils will gain knowledge around how different materials can be used to promote insects and wildlife and those materials which may hinder the environment. Pupils will learn the difference recycling and upcycling and will plan a project which benefits the environment through either upcycling or recycling tasks. Lessons are a practical structure supporting to equip students with the skills they can use in a garden environment. This also promotes participation and teamwork by encouraging students to work co-operatively.</p>		

Key vocabulary taught within this topic:	Environment, positive, negative, world, global warming, pollution, recycling, energy, waste, survey, tally chart, eco-friendly, report, results, conclusion, re-use, reduce, waste, Earth, help, sow, litter, upcycle, waste, material, design, plan, make, evaluate, plastic, sowing, seeds,
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**Prior knowledge: what pupils may already have studied**

Key stage	Subject	Topic title	Term/year taught	Content/What might pupils already know?
KS3	Grow it	Soil, life cycles, food.	Year 1 2021-2022 Year 2 2022-2023 Year 3 2023-2024	<p>Soil – ground based</p> <p>Pupils will develop the skills needed to improve an area of garden and how to use a range of available space to maximise growing healthy fresh foods. Pupils will learn skills related to caring for soil, plants and the environments including how to manage plant waste and compost effectively. Pupils will also develop a sense of seasons and seasonal growth patterns.       Seeds &amp; Life Cycles</p> <p>Pupils will understand the life cycle of a seed and be able to experience each key step of growth. Pupils will recognise weather conditions and make assessments around needs of a plant. Pupils will learn the skills needed to recognise stages of plant growth and the care needed.</p> <p>Pupils will be supported to learn about and recognise their environment. Pupils will gain knowledge of tasks related to plant care.</p> <p>Food</p> <p>Pupils are able to develop an understanding of the growth of a plant from seed to harvest. Pupils are able to understand the types of plants that can be grown for the purpose of eating within their personal and local environment. Pupils will recognise a range of fruit and vegetables and be able to identify these in a meal.</p> <p>Pupils will gain knowledge of the importance of fresh food in a diet and learn how to harvest &amp; prepare these.</p> <p>Pupils will be supported to learn about and recognise their environment. Pupils will gain knowledge of tasks related to plant care.</p>

Links to other subjects:	<p>Links to other subjects: PHSCE, Science, Religion, English, Cook it It, PE.</p> <p>English- reading, key words and SPAG.</p> <p>Maths- numeracy, measurements.</p> <p>Cook it- how to cook food grown,</p> <p>Grow It- growing and harvesting food.</p>
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Science- climate changes, pollution, food and nutrition,

Religion - dietary requirements for religious beliefs.

Geography and history- countries where food is harvested, history of plants, vegetables, gardening, gardening tools.

PE- active healthy lifestyles.

	<u>O&amp;U P 5</u>	<u>O&amp;U P 6-8</u>	<u>O&amp;U Step 1c-1b</u>	<u>O&amp;U Step 1b-2c</u>	<u>O&amp;U Step 2c-2a</u>
Subject specific knowledge	To identify rubbish in the environment	To know that rubbish is bad for the environment	To know the meaning of recycle and upcycle	To know that a range of products can be recycled and reused.	Knows and understand what recycle and reuse mean and can explain why it is important to recycle and reused.
What do pupils need to know?	To know that rubbish in soil is bad	To know that rubbish is put into bins and can be sorted into different bins	To identify some ways it can help the environment	To know what recycle and upcycle mean and can describe why it is important to recycle and upcycle	Knows and understands how to reduce waste and can explain the advantages.
	To know that rubbish is put into bins	To know that recycle means reuse again	To know issues rubbish causes on the environment i.e. injuries animals, unsuccessful growth	To know how to reduce waste and can identify some of the advantages.	Understand the negative effects of microplastics on the environment
	To identify and match items that can be recycled	To know that some items of rubbish can be recycled	To know how to reduce & effectively sort waste	To know the negative effects of microplastics on the environment.	To know and understand that recycling centres help sort and separate into different types of materials by hand or machine (or both) before being sent to manufacturers who make it into new products.
		To know that materials can be recycled and used within the allotment	To know that recycling centres sort materials for reusing	To know that recycling centres help sort and separate into different types of materials by hand or machine (or both) before being sent to manufacturers who make it into new products	Knows a range of different environments where waste can be sorted e.g. home, school, parks, work places, restaurants and tips.
		To know that plastics in soil can make the soil bad quality	To know that sorting waste can be done by individuals in the home	To know that sorting waste can be done by individuals at home and at work	Knows and understands a range of negative effects of human activity on the environment.
			To know that recycled items can support a healthy garden <ul style="list-style-type: none"> <li>- Water collection</li> <li>- Bird scarers</li> </ul>	To know the effects human activity has on the earth e.g. litter, plastic pollution and the effects it has on the environment	To know a range of ways that recycled items can support a healthy allotment <ul style="list-style-type: none"> <li>-water collection</li> <li>-bird scarers</li> <li>-bird feeders</li> <li>-habitats</li> </ul>
				To know ways that recycled items can support a healthy allotment <ul style="list-style-type: none"> <li>-water collection</li> <li>-bird scarers</li> <li>-bird feeders</li> </ul>	

				-habitats	
Subject specific skills  What do pupils need to be able to do?	To be able to pick litter after demonstration when given the correct equipment  To be able to identify litter within a soil sample  To be able to correctly recycle materials into clearly symbolised containers using a choice of two  To be able to identify items which are recycled at a recycling centre using a choice of symbols	To be able to recycle materials into clearly symbolised containers  To be able to pick litter when given the correct equipment  To be able to identify rubbish which can be recycled at a recycling centre  To be able to sieve and remove litter/ debris from finished beds  To be able to use a plastic bottle to collect rain water	To be able to pick litter using the correct equipment  To be able to recycle materials and suggest a way an item can be upcycled  To be able to give a report on findings from a visit to a recycling centre  To be able to research ways of reusing waste for effective systems in an allotment	To be able to recycle materials correctly and suggest ways an item can be upcycled.  To be able to pick litter using the correct equipment and disposing of appropriately i.e. compost, recycle, bin  To be able to upcycle using a range of resources  To be able to give a report on findings from a visit to a recycling centre using key language  To be able to suggest ways to reduce waste and waste materials in an allotment	Is able to recycle materials correctly and suggest a range of ways an item can be upcycled.  Is able to pick litter using the correct equipment and disposing of appropriately i.e. compost, recycle, bin.  To be able to recycle/upcycle.  To be able to recycle materials correctly and suggest ways an item can be upcycled.  To be able to pick litter using the correct equipment and disposing of appropriately i.e. compost, recycle, bin.  To be able to upcycle using a range of resources.  To be able to give a detailed report on findings from a visit to a recycling centre using key language correctly.  To be able to suggest a range of ways to reduce waste and waste materials in an allotment

<b><u>Personal development</u></b>	<p><u>Problem solving-</u> Linked to resolving any issues encountered, finding a way to solve the problem when gardening.</p> <p><u>Communication skills-</u> Using full sentences/signs appropriate, to communicate instructions and ideas, listening and responding appropriately to other people's ideas.</p> <p><u>Self-belief-</u> Never giving up if unable to resolve the issues, continue to ask, listen and try different solutions.</p> <p><u>Self-management-</u> Linked to managing equipment safely and managing behaviours.</p> <p><u>Team-work-</u> Linked to working in small groups and realising a goal as a group, cooperating with a group and working together effectively.</p>
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Suggested teaching activities

How should I teach this?

Identify litter pick equipment and learn how it is used.

Litter pick.

Collect rain water and use to water plants, make a water feature for animals.

Organizing waste materials.

Research ways of reducing waste/upcycling.

Maintaining beds removing litter.

Building upcycling birdhouses/insect houses.

Visit recycling facility and report on findings.

Upcycle equipment / gardening resources.

Plan to reduce waste, measure the impact and report on findings.

Evaluate impact.