

KS5 Grow it - Sustainability

Subject curriculum intent:	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.		
End of KS3 intent/outcome	End of KS4 intent/outcome	End of KS5 intent/outcome	
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 & science.	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 can 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.	Pupils have a good knowledge of the environmental impact of food growth across the globe. Pupils can 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.	
Intent for this topic:	Pupils will understand the impact of global food waste. Pupils will gain knowledge of ways to reduce food waste and improve sustainability when growing/cooking at home and/or within school. Pupils will reuse materials to manufacture resources for use within an allotment plot. Pupils will investigate new and exciting ways in which the food industry are looking to improve sustainability by growing within different environments/spaces and begin to understand how they may implement these techniques at home to improve a healthy diet.		
Core vocabulary needed for this subject/topic:	Climate change, reduce, reuse, recycle, improve, waste, impact, environment. Carbon, oxygen, deforestation, agriculture, farming.		
Vocabulary pupils will have accessed in other topics or subject areas:	World, environment, climate change, healthy, unhealthy, growing, cook, waste		

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	Food	Yearly topic	Students will know the stages of plant growth from seed to harvest. Students will know the types of plants that can be grown for the purpose of eating. Students will recognise a range of fruit and vegetables and be able to identify these in a meal. Students will gain knowledge of the importance of fresh food in a diet and learn how to harvest & prepare these.
KS3	Science	Living things and their environment	Year 1 - Autumn 1.	Students will learn that animals and plants have lots of different features and group animals in different ways and into their animal classes. Students will build food chains and use food chains to build food webs. Students will learn about the plants and animals that can be found in different habitats and how plants and animals adapt to their habitats.
KS3	Science	Why are plants important?	Year 3 - Autumn 1	Students will be able to identify, name and classify different plants. Students will learn the parts of a plant and the parts of a flower, they will be able to label and explain their function. Students will explore the life cycle of a plant and explain what happens at each stage. Students will investigate what a plant needs to grow and have the opportunity to grow their own plants to observe and understand how they germinate.
KS3	Geography	Can the earth cope: ecosystems, population & resources	Year 1 - Summer 2	Students will develop understanding of different eco-systems on Earth. Pupils will learn about what animals and plants live in various habitats. Pupils will develop their understanding of global warming and the impact the human population has on finite resources and their overall impact to the environment.
KS4	Grow it	Food History	2022-2023	Students will develop an understanding of plant-based food consumption through history up to present date. Students will know the importance of food across global cultures. Students will know that food differs between countries and cultures depending on environmental conditions
<p>Links to other subjects:</p> <p>English- reading</p> <p>Maths- numeracy, measurements, time</p> <p>Cook it- how to prepare and cook food grown,</p> <p>Science- climate change, pollution, food and nutrition, plant cycles.</p> <p>Religion - dietary requirements for religious beliefs.</p> <p>Geography and history- countries where food is harvested, history of plants, vegetables, gardening, gardening tools, environment.</p> <p>Health and Wellbeing/PE- active healthy lifestyles.</p>				

RRS Articles: This unit of work is linked to.

Article 29 - the goals of education

Education must develop every child's personality, talents and abilities to the full. It must encourage the child's respect for human rights, as well as respect for their parents, their own and other cultures and the environment.

Subject: Grow it: Sustainability

Suggested Flow of Learning

Term: 2023/2024

	<u>O&U Working Towards Entry 1</u>	<u>O&U Entry 1</u>	<u>O&U Entry 2</u>	<u>O&U Entry 3</u>	<u>O & U Level 1</u>
<u>Subject specific knowledge</u>	<p>To know that plants can grow in different places</p> <p>To know that seeds can be harvested</p> <p>To know what food waste is</p> <p>To know that rain water is good for plants</p>	<p>To know parts of a plant</p> <p>To know different areas in which plants can be grown</p> <ul style="list-style-type: none"> -Pots -Indoors -Outdoors -In the ground <p>To know that you can grow more plants from food waste</p> <ul style="list-style-type: none"> -Carrot tops -Lettuce tops <p>To know that rainwater can be collected and used as a useful resource</p>	<p>To know that seeds can be harvested and used to re grow</p> <p>To know how to harvest a range of seeds</p> <p>To know a variety of growing areas</p> <ul style="list-style-type: none"> -vertical beds -greenhouse beds -indoor -outdoor -Growbags -Shelving <p>To know that natural resources found outside supports growing plants</p> <p>To know numbers of plants which can be grown in a given area.</p> <p>To know that some plastics can be recycled/ some can be reused</p>	<p>To know ways to reduce/ reuse waste in an allotment</p> <p>To know a growing technique suitable for a given space</p> <p>To know that there are a range of natural and unnatural resources that can be used to support a healthy allotment</p> <p>To know which plastics can be recycled</p> <p>To know how to reuse a range of single use plastics in an allotment and what the benefits are</p> <p>To know that companion planting can reduce use of pesticides</p>	<p>To know some modern techniques in use to improve growing in any given space</p> <p>To know environments needed for diverse types of plants</p> <p>To know ways to improve harvest of a particular plant</p> <p>To know that soil depletion is affecting the environment</p> <p>To know that a healthy allotment will use resources available as opposed to resources you buy and less plastics</p>
<u>Subject specific skills</u>	<p>To be able to harvest seeds from a plant</p> <p>To be able to use a hand tool to dig a plant from the ground</p> <p>To be able to match the name to a space for growing</p>	<p>To be able to identify large and small areas of land</p> <p>To be able to name and use a range of growing spaces</p> <p>Can use kitchen food waste to regrow either using cut offs or seeds</p>	<p>Can separate single use and recyclable plastics used in a garden</p> <p>Can sort and suggest ways to use kitchen waste</p> <p>Can identify natural and unnatural materials</p>	<p>Can suggest ways of reusing single use plastic as a useful allotment resource</p> <p>Can choose ways to use natural resources for growing plants</p> <p>Can harvest and store seeds from kitchen waste and seeding plants</p>	<p>To be able to plan an allotment efficiently to increase amounts produced</p> <p>To be able to suggest growing techniques used throughout the allotment to improve production</p> <p>To suggest ways of reducing food waste</p>

	-greenhouse -Raised bed -Pot Can use collected rainwater to water plants Can sow seeds	Can identify plastic in a garden Can complete some steps towards reusing waste materials to create crafts for the allotment	Can identify kitchen waste that still has a stem and can therefore be propagated Can plant out the correct number of seedlings into a given space	Can use DT skills to build useful garden resources from scrap material Can suggest alternative ways of sourcing materials to support an allotment Additional soil Bark Water Stick supports	To be able to suggest a growing technique suited to a particular plant/s and space Can test soil and suggest ways of improving condition
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Personal development

Pupils engage in practical tasks aimed at developing individual and teamwork skills.
 Pupils can respond to and deliver peer mentoring, gaining an understanding of workplace relationships and enabling them confidence when communicating with others.
 Pupils able to develop familiarity when completing familiar practical tasks, allowing pupils to embed processes and explore transferrable skills.
 Pupils are encouraged to contribute towards creative changes and design choices, enabling them to gain confidence when making decisions at work

Suggested activities.

harvesting seeds
 replant seeds harvested
 Re grow from kitchen cut offs
 Harvest foods for catering
 Composting
 Use materials to plan and create useful allotment tools
 Bird scarers
 Seed labels
 Use compost as a bed as a planting area as an experiment
 Experiment with growing techniques for different plants
 Plan a small allotment area measuring plants to ensure maximum production
 Fruit cages
 Storage solutions
 Plan and create a vertical bed
 Plan new ways to grow in unused allotment space
 Net covers
 Felt covers

Online resources / Apps

Evidencing Work

Lessons are evidence via worksheets or practical (photo) evidence forms. All work is evidenced using the 6th form evidence sheet proforma. All pupils are assessed using bespoke assessment tool on Onwards and Upwards