

# **Environment and Sustainability**

# September 2023

# Contents

- 1. E & S Statement
- 2. Teaching and Learning
- 3. Assessment
- 4. Planning and Resources
- 5. Organisation
- 6. EYFS
- 7. KS1 and KS2
- 8. Equal Opportunities
- 9. Inclusion
- 10. Role of the Subject Leader
- 11.Parents

#### 1. Environment and Sustainability Statement

#### Intent

William Patten Primary School is committed to being an environmentally friendly and sustainable school. We will enhance the progress being made towards this, by further reducing the school's ecological footprint, embedding sustainable practises in our everyday lives. We are committed to ensuring that children understand their roles and responsibilities in looking after the school environment and beyond, and how they can lead more sustainable lifestyles. We are proud of our links with external agencies, such as, Trees for Cities, Greenpeace, FairTrade and the The Green Schools' Project and the Eco Schools' framework. In 2022, we were awarded the Green Flag Eco Schools award with distinction. The children who have been part of the Eco-Team, as well as the school as a whole, will work towards renewing this for this academic year. This award highlights the whole school approach of following the 7 step programme to ensure we are following best practice in being and environmentally friendly and sustainable school.

#### **Implementation**

As a whole school community, we are excited and committed to raising the profile of environment and sustainability at William Patten, through its effective integration within the curriculum. We believe that increased awareness of the environment and sustainable living supports and promotes students' spiritual, moral, social and cultural development. Children's understanding of environment and sustainability is supported by practical, firsthand experiences and collaborative activities which take place in the school grounds. Planned and coordinated activities involving shared resources, such as the edible playground and landscaped roof garden, ensure the children develop a deep understanding of their relationship with the environment and how their choices and actions can support sustainable living. Opportunities for applying this to a wider context, both on an immediate and wider local scale, as well as on a global scale, are then supported directly through the school's curriculum, with specific coverage of these themes in a number of curriculum areas, including science and PSHE. The children also have access to positive role models from the local and wider community, with specific expertise, through our partnership working with external agencies, including those mentioned above, as well as STEM.org and representatives from our families. The subject lead has established a successful working partnership with the Hackney Council Environmental Officer, Kelly Sullivan. Kelly works with the school to ensure the highest possible standard of education in terms of environmental issues and promoting sustainable living. This year, we were named Lead Eco School in Hackney and were able to host 20 other schools from the borough who visited William Patten to see how best to achieve their own eco-school status.

#### **Impact**

The school's commitment to sustainability is evident in both the indoor and outdoor school environment. Each classroom, for example, has a recycling area and the timetabled use of the edible garden and roof garden ensure that children observe the impact of their project work in these areas throughout the school year. The school has achieved the Learning Outside the Classroom (LOtC) award at gold level, in recognition of 'exemplary LOtC provision...ensuring that all pupils have access to frequent, continuous and progressive learning outside the classroom to support their learning and achievement.' The external assessment report also acknowledges 'wonderful improvements' to the school grounds, specifically recognising the roof garden refurbishment and inclusion of 'planters for each class and a greenhouse'. The school also holds the British Council's 'International School Award', acknowledging the depth in which sustainability as a theme has been taught throughout the school. Planned special events, including the summer picnic, in which

children eat the food they have grown, as well as the annual Nature Day, ensure that children develop a secure understanding of their responsibility to the environment and the importance of sustainable living. In the summer of 2022, the school was awarded a level 5 Royal Horticultural Gardening schools award, the highest level of achievement, for the dedication and commitment the children have shown in looking after and tending to the crops in our outdoor growing areas. Similarly, the Eco Team completed the 7 step Green Flag process and therefore we have been awarded Eco-School status with distinction. We have had a new Eco School team this academic year and they will continue throughout the next year too, to ensure we reach our Eco target and goals. Children learn of the impact that lifestyle choices can make in the natural world and develop their understanding of the implications and benefits for themselves and others. William Patten Primary School aims to educate students on making environmentally friendly choices for life. It has achieved an Eco Schools Award at bronze level, in recognition of the progress it has made towards a sustainable lifestyle. William Patten was featured in the local Eco Schools' brochure, showcasing the impact of the work done in school. A copy of the brochure can be viewed in the following link. https://www.williampatten.hackney.sch.uk/wpcontent/uploads/2022/11/Eco-Schools-Brochure.pdf



We adapt and change our environment and sustainability goals from year to year, with pupil voice leading on what improvements they would like to see in school. However some, such as requesting children to bring in reusable water bottles instead of single use plastic ones, is one implemented and continuously in place. This has seen a dramatic drop in the plastic recycled in school. We were seeing an average of 450 single use plastic bottles not being used a week. A teracycle box has also been put in place and is used to help recycle more difficult items like glue sticks and pens. Our growing spaces ensure we regularly use produce grown on site.

It will be the role of the Environment and Sustainability Lead to meet with the Hackney Council Environmental officer each academic year to assess the progress of the school against sustainability goals recorded to ensure we further reduce the school's ecological footprint.

#### 2. Teaching and Learning

All teachers have access to Edible Playground Project Planning, from Trees for Cities. Teachers use this to ensure their use of the edible playground and rooftop terrace is linked effectively to National Curriculum programmes of study. Laminated copies are also distributed in class, an example of one is below. The subject leader promotes and ensures the completion of identified termly tasks in line with those identified for each year group.

# YEAR 1 EDIBLE PLAYGROUND CURRICULUM GUIDE



# YEAR 1 EDIBLE PLAYGROUND CURRICULUM GUIDE



list of activities which are age and year group appropriate, linking to the National Curriculum. If your school follows your own curriculum then please use these activities as n indicator and adapt the ideas to suit the needs of your class.

YEAR 1	AUTUMN	SPRING	SUMMER
Reading texts	Where the Wild Things Are by Maurice Sendak	Stanley's Stick by John Hegley	Tadpoles Promise by Jeanne Willis
Literacy	ABC hunt - hide the alphabet in your Edible Playground. Groups have to find their letters and lay out the alphabet in the correct order. (phonics) Story Hunt - hang/hide different characters, settings and objects in your Edible Playground. Children have to choose one and then take it in turns to tell different stories using their chosen character, setting and object. (speaking and listening)	Put out plant pots in the Edible Playground with different digraphs labelled on the front. Give out a selection of objects found in your Edible Playground to match with the correct digraph sound. ( <i>phonics</i> ) Collect an object from the Edible Playground and then write down words that describe how it looks, smells, feels and sounds. ( <i>writing</i> )	Use coloured chaik on the playground floor to mark out a huge hopscotch or a long snake with the letters and sounds that you are focusing on that day/week. Children can have fun hopping along and shouting out the sounds as they land on them. <i>[phonics</i> ] Lay out the alphabet. Children have to go on an alphabet hunt to find natural/outdoor objects in the Eduble Playground that match each letter. e.g. S = stick W = watering can. <i>(phonics</i> )
Numeracy	Number and Place Value Collect different natural materials in groups of tens. How many groups of tens can you make? Each child gathers 10 leave;/ticks etc. Teacher calls a number (e.g. 5), and they have to organise themselves into groups of that number. They then have to count in tens to tell you how many leaves they have altogether as a group.	Addition and Subtraction Play a game of snakes and ladders on the playground floor using chalk and seeds as counters. Practice counting forwards and backwards.	Fractions/Measurement Create a mandala and divide it into halves and quarters. Fill it in using natural materials. Using different coloured string, children identify which plants are more or less than one metre. E.g. blue string – more than a metre, red string – less than a metre.
Science	Plants Collect a variety of leaves in your Edible Playground and identify which ones are deciduous and which are evergreen.	Animals Using spoons, magnifying glasses and petri dishes, go on a bug hunt. Can you find different types of invertebrates?	Working Scientifically Make a pile of natural materials from your Edible Playground and school grounds. Children have to sort them into different hoops based on different criteria. Can they come up with their own criteria for sorting?

Use of both the Edible Playground and landscaped rooftop garden is an integral part of the school's commitment to ensuring the effective use of the school grounds to provide frequent, continuous and progressive learning outside the classroom (LOtC). In line with the school's LOtC policy, use of these resources provides the means to ensure that children -

- Experience a range of frequent and progressive practices
- **Develop** confidence, self-awareness and skills (e.g. responsibility for self and others, working in a team, leadership, communication, problem solving)
- Learn new ideas, facts and concepts in a real world context
- Grow through challenge and become more independent
- Demonstrate achievement through awards, school/setting displays and school events
- Increase motivation and willingness to learn contributing to raised levels of attainment
- Broaden horizons and raise aspiration believing they can achieve

The following strategies apply directly to how these aims are achieved through the effective use of the specifically developed outdoor resources -

- 1. Planning high-quality provision of Learning Outside the Classroom (LOtC) experiences
- 2. Ensuring that all age groups receive a wide range of experiences and activities
- 3. Recognising different learning styles and taking into consideration the fact that some learners learn best through a hands-on approach, actively exploring the physical world around them.
- 4. Providing frequent activities which allow for progression in both experiences and learning.

#### 3. Assessment

The Environment and Sustainability Subject Leader regularly meets with the Eco team to review if the following ecological objectives are being addressed and adhered to in each classroom and key stage:

#### Energy

- To promote a 'switch off and save' policy for technological equipment, lighting and heating/cooling.
- Children to engage in units of work relating to energy, with strong links to science.
- Children will investigate the best ways to conserve energy.

#### Waste

- To assign children to dispose of waste and recycled products daily in the appropriate manner.
- To assign children to monitor rubbish free lunches and each term award the class who has the most rubbish free lunches.
- For monitors to collect food waste daily and transfer it to the compost bin.
- For children to dispose of paper into recycling bins.
- Promote the reuse principle of paper in classrooms, staffroom and office.

#### Biodiversity

• To grow and harvest a range of vegetables/herbs to be utilised by the kitchen or selling produce.

- Involve parents, carers and community members in planting and maintaining the Edible Playground and roof garden.
- Engage children and staff in the maintenance of our gardens.

#### Water

- To promote a 'water-wise turn off' policy.
- Students to engage in units of work relating to water conservation.
- If children bring in a water bottle it should be a reusable one to reduce single use plastic.

In addition to this, the Eco Team complete an environmental review and set out an action plan of points that they want to work towards and achieve. The 2022-2023 example is shown below.



#### 4. Planning and Resources

At the beginning of the academic year, all class teachers will be issued with a class planting pack, planting plans and crops guides. Seeds will be issued by the Environment and Sustainability lead and Deputy Head to each year group. The Eco Team continue to play a prominent part in leading on the planting and harvesting of the crops and are responsible for their classes raised beds. The Eco Team's role in the school's growing and planting schedule is part of their wider role to raise awareness of local and international issues surrounding the environment and sustainability.

To ensure that environment and sustainability are embedded in the curriculum, consideration is given to how these can be incorporated at topic planning level. The 'School Context' section of the Knowledge and Skills Progression Maps for each subject, indicates, for example, how the school grounds (including the roof terrace and edible garden) and community links can be used in the context of a specific subject topic to support the acquisition of key identified knowledge and development of skills.

For whole school celebrations, such as World Ocean Day or Fairtrade Fortnight, the subject leader will deliver resources to staff and they will be centrally saved on the shared drive.

#### School Trips

Opportunities will be sought by the school to provide the children with access to places of environment and sustainability significance and learning outside the classroom within units of work. The subject leader themselves will identify and map school trips that support the work of the eco-team and subjects that have cross curricular links to environmental topics, using the School Trips Mapping document. This lists recommended trips that are appropriate to the topics of each subject that are being taught in each team.

Teachers, in collaboration with SLT, subject and phase leaders, will ensure that there is diversity in the subjects that children are accessing school trips in. The category that each trip falls under, is also mapped and considered at planning stage to ensure a broad and balanced enrichment offer.

School Trip Categories							
Natural	Places	Architecture	Artistic -	Science	Adventure	Zoos	Regional/
World –	of	and Heritage -	Theatres,	and	Activity	and	national
parks,	Worship	Historic sites	galleries	Discovery	and	Aquaria	Museums
woodland		and	and		Leisure		
		contemporary	creative		Centres		
		buildings	settings				

Children from reception to Y6 have the option of accessing school trip locations via the London underground as well as local bus routes.

# 5. Organisation

The outside growing spaces are organised so that crops are sown and harvested at the correct time throughout the academic year.

RTG: Rooftop										
	EP <u>Nursery</u> bed/Annual Veg	EP Veg Garden	EP Herb Garden	RG <u>Reception</u> Raised Bed	RG <u>Year 1</u> Raised Bed	RG <u>Year 2</u> Raised Bed	RG <u>Year 3</u> Raised Bed	RG <u>Year 4</u> Raised Bed	RG <u>Year 5</u> Raised Bed	RG <u>Year 6</u> Raised Bed
September	Harvest remaining broccoli.	Plant broad beans next to trellis.	Snip basil leaves.	Harvest butternut squashes.			Snip chives Remove sunflowers.	Cut lettuce leaves. Harvest radishes.		
October				Harvest butternut squashes.			Harvest carrots.	Cut lettuce leaves.		
November		Plant Garlic cloves.	Plant Garlic.	aquastres.						Plant Garlic cloves. Plant tulip bulbs (raised bed and playground). Plant Sweet Peas in pots (with sticks) and grow in
December										greenhouse.
January										
February			Sow basil							
March			seeds (in 2L on Windowsill).	Sow butternut	Sow nasturtium	Sow Beetroot Seeds	Sow carrots Seeds.	Sow cherry tomato seeds in	Sow pumpkin seeds in class on windowsill.	Sow plum tomatoes in
April	Sow broccoli seeds in classroom and sow on windowsill.		Sow nasturtium seeds.	squash seeds in classroom and grow on windowsill.	seeds directly into bed. Sow cucumber seeds (on their side) in the classroom	Seeds directly into bed. Sow Rocket seeds directly into bed.	Sow sunflower seeds directly into bed. Sow chives directly into bed.	class and grow on windowsill. Sow 'Cut and Come Again' lettuce	Sow mange tout in class and grow on windowsill.	class and grow on windowsill.
June		Dig garlic up (when leaves are yellow). Pick/harvest broad beans.	Dig garlic up (when leaves are yellow). Plant basil into bed.			Snip Rocket leaves.	Thin out Carrots (discard any plants that are growing too close to others).	Cut lettuce leaves. Sow radishes in bed.		Dig garlic up (when leaves are yellow). Dig up bulbs and (raised bed and playground) label and store covered, in greenhouse.
July	Harvest broccoli		Snip basil leaves. Snip nasturtium leaves and flower petals for salads.	Harvest butternut squashes that are ready.	Harvest cucumbers Snip nasturtium leaves and flower petals for salads.	Harvest (dig up) Beetroot	Snip chives.	Cut lettuce leaves. Harvest (dig up) radishes. Sow more radishes in bed. Pick tomatoes.	Harvest (pick) Mange Tout	Pick tomatoes

#### Planting and Sowing Overview

Action	wing Plan – 2022-23 Nursery	Reception	¥1	¥2	¥3	¥4	Y5	Y6
Crop	Roof Terrace –	Roof Terrace –	Roof Terrace & Edible	Roof Terrace	Roof Terrace & Edible	Roof Terrace & Edible	Roof Terrace & Edible	Roof Terrace
Location	Wildflowers	Wildflowers EYFS Space – Cherry Tomatoes	Playground	Nuoli renace	Playground	Playground	Playground	Ruor renace
Action 1	Class in small groups with supporting adult: <u>Wildflower Mix</u> for Bees & <u>Butterflies</u> 1 pack per class – Sow directly outdoors – lightly rake the soil after covering the seeds.	Class in small groups with supporting adult: <u>Dwarf Sunflower Seeds</u> 1 pack per class – Sow directly outdoors, planting two seeds together every 45cm – 1.5cm deep. <u>Cherry Tomatoes</u> 12 seeds – 6 per class – sow into seed trays on windowsill	Eco Team Members (With Craig & Laura): <u>Beetroot</u> 150 seeds – sow half thinly directly into soil in <b>odible playground</b> . Sow the remaining seeds in each class's <b>roof terrace planter</b> . <u>Broad Beans</u> 50 seeds – sow about 25 directly into soil of edible playground – close to every trellis. Sow about 25 seeds in double rows	Eco Team Members (With Craig & Laura) Mixed Lettuce One half of each planter: 2L - roll out lettuce seed tape, cut to desired length and plant 1c deep in rows that are 5cm apart 2C – Sow seeds thinly 1.5cm deep in rows 30 cm apart. <u>Nasturtium Collection</u> Second Half of each planter: Sow 2 seeds from each packet together, 1.5 cm deep at 2cm intervals.	Eco Team Members (With Craig & Laura): <u>Butternut Squash</u> Sow 2x packs of 12 seeds in 9cm pot trays 0.5cm deep and take to each classroom (windowsill).	Eco Team Members (With Craig & Laura): <u>Pumpkins</u> Sow 2x packs of 10 seeds sideways in large pot trays, covered by thin layer of compost. Cover, and take to each classroom (windowsill).	Eco Team Members (With Craig & Laura): <u>Cucumbers</u> Sow Zx packs of 12 in 9cm seed trays 0.5cm deep and take to each classroom (windowsill).	Eco Team Members (With Craig & Laura): <u>Assorted tomatoes</u> Sow 5 sets of 10 seeds of each variety 0.5cm deep in seed trays. Cover, and take to each classroom 3 trays 6M and 2 trays 6H (windowsill).
Maintenance	Water regularly – John & David will support.	Water regularly – John & David will support. <u>Sunflower seedlings</u> will appear 14 -21 days. <u>Cherry Tomatoes</u> Seedlings appear after 7- 14 days.	Whole class waters daily on a rota system and Eco team members monitor. Seedlings appear 7 – 21 days.	Water regularly – John & David will support.	Whole class waters daily on a rota system and Eco team members monitor. Seedlings appear 7 – 14 days.	Whole class waters daily on a rota system and Eco team members monitor. Seedlings appear 7 – 21 days; remove cover at 5-6 leaf stage.	Whole class waters daily on a rota system and Eco team members monitor. Seedlings appear 7 – 21 days.	Whole class waters daily on a rota system and Eco team members monitor. Seedlings appear 7 – 14 days.
Action 2 Laura & Craig to support		Cherry Tomatoes Transplant seedings into 9cm pots and on flowering, transfer to growbags in EYFS space provide vertical strings to enable climbing.	Eco team members with supporting adult: Thin seedlings to 10cm apart. Snip them with scissors instead of pulling them to prevent damage to the roots of remaining plants.		Eco Team members plant 14 seedings in two halves - 7x in each roof terrace (well- spaced). Plant remaining 10 seedlings in edible playground (well- spaced and cloche covered).	Eco Team members plant 12 seedlings in two halves - 6x in each year 4 raised bed on roof terrace (well- spaced). Plant remaining 8 seedlings in adible playground (well- spaced and cloche covered).	Eco Team members plant one set of 12 seedlings in two halves - &k in each year 4 planter on roof terrace (40 cm spaced), with canes. Plant remaining set (12 seedlings) in edible playground – cloche - required (40cm spaced) with canes or alternative child safe growing structure.	Eco team members transplant seedlings to 9cm pots and stand on raised bed – ensure each type clearly labelied. On flowering, plant into the soil alongside canes.
Harvest		Broad beans - June and July			September to October.	September to November.	From July to September.	Earliest July, but September more realistic.
Resources					Cloche or protective cover Seed trays 9cm pots – ideally 2x sets of 12	Cloche or protective cover Seed trays (large) ideally 2x sets of 10	Cloche or protective cover Seed trays 9cm – ideally 2x sets of 12. Canes for terrace and alternative for edible playground.	Seed trays – 5 sets of 10 ideally. 9cm pots Canes
		9cm pots x 12 Compost Growbag String.						

# 6. <u>EYFS</u>

Having regular access to the Edible Playground and roof garden supports the children in making sense of their physical world through opportunities to explore and observe crops being grown. Each class has their own raised bed as well as access to the Edible Playground, which supports the progress that children make in this specific curriculum area.

# 7. KS1 and KS2

Teachers are supported by the Environment and Sustainability lead to highlight key dates and teach about specific environment and sustainability issues according to these throughout the year, for example, Earth Day, Fairtrade fortnight etc. Both key stages ensure utilisation of the Edible Playground and roof garden by planning and teaching cross curricular activities in the space and attending to their allocated raised bed. This is monitored by the E&S lead. Curriculum links, planting plans and a variety of lesson ideas can be found within the Environment and Sustainability folder on the shared drive. Curriculum mapping in each subject also evidences the extent to which these aspects are covered through the wider curriculum. In the autumn term, an Eco Team is established. They will meet regularly with the E&S lead to support the progress being made toward the school's ecological objectives (see section 3) at classroom and key stage level.

# 8. Equal Opportunities

All children at William Patten, regardless of their socio economic background, will have the opportunity to learn in both the Edible Playground and the roof garden. Sustainable living will be promoted throughout the school and will support children in being able to make informed choices and to live in a way that does not damage our planet. Every effort will be made to ensure that learning experiences and activities are fully inclusive and take account of the varying needs of learners.

# 9. Inclusion

In school we aim to meet the needs of all our children through effective differentiation in our Environment and Sustainability planning and in providing a variety of approaches and tasks which provide an appropriate level of challenge to all individuals and groups of learners. This involves providing opportunities for SEND children to have time in Edible Playground and the roof garden, with adult guidance, to develop their understanding of nature as well as embedding scientific skills and knowledge. This will enable children with learning and/or physical difficulties to take an active part in learning outside the classroom (and specifically outdoor learning), as well as practical activities and investigations. Some children will require closer supervision and more adult support to allow them to progress whilst those who are quick to grasp new concepts will be extended through differentiated activities and questioning. By being given enhancing and enriching activities, more able children will be able to progress to a higher level of knowledge and understanding and make the progress of which they are capable. Teachers will use the school's inclusion planning key to ensure that a range of strategies are used which include and motivate all learners, ensuring that optimum progress is made throughout each part of the lesson. The Edible Playground will help improve health and wellbeing, open up access to nature, and provide an outdoor learning environment that is fun and which supports cross-curricular learning.

# 10. Role of the Subject Leader

It is the responsibility of the subject leader to monitor the standards of children's work, engagement and learning. The subject leader is also responsible for supporting colleagues in their teaching, for being informed about current developments in the subject, and for providing a strategic lead and direction in the school.

The subject leader monitors the budget, oversees resources for the Edible Playground, and books trips and workshops to support learning. The role of the Environment and Sustainability lead is to ensure the Edible Playground roof garden is a well-maintained space for children to have opportunities for progressive learning outside the classroom. The Environment and Sustainability lead will be present at Eco Team meetings and allocate responsibilities for the different children present.

The subject leader is responsible for establishing working relationships with other local Eco Schools, with the support of the Environmental officer at Hackney council.

#### 11. Parents

We will encourage community participation in environmental projects undertaken, as well as, invite parents with expertise to help maintain and improve the Edible Playground and roof garden. We have parents who work in the environment and sustainability field and we utilise their expertise to deliver workshops. Parents and carers are a much valued part of our school community and this will continue to build on our positive relationships with families. A gardening club will be maintained in which families can garden together in the school's outdoor learning spaces. Parents, and the wider community, can keep up to date with what is happening with regards to the Eco Team and the whole school Eco projects on the school website. <a href="https://www.williampatten.hackney.sch.uk/pupils/eco-team/">https://www.williampatten.hackney.sch.uk/pupils/eco-team/</a>



The William Patten Eco-learn is made up of 20 children, from Year 2 to Year 6, who meet regularly to discuss important issues regarding the environment and sustainability. Laura, who is the environment and sustainability lead, helps the children chair the meeting. The Eco-Team has proved a fantastic way to encourage interest and involvement in caring for the natural world, and all of the members are given the responsibility of helping organise whole school events, such as Recycling Week, Fairtrade Fortnight and World Ocean Day, to name but a few!

This policy will be reviewed annually by the Governing body.

Policy Agreed:	September 2023
Policy Review Date:	September 2024