Scientix STEAM Partnership Lesson Plans
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Projet Title: *'Emerging Technologies and STREAMS Education – Eco and Empathetic warriors'*

Assumption Senior Girls' National School.
http://www.assumptionseniorgns.com/

As part of Scientix STEAM Partnership, we prepared, and trialled a series of lessons based on STREAMS Education, Education for Sustainable Development (ESD), and SDGs in our Open-Spaces, outdoor classroom, in our school. These lessons for senior classes are created under CC BY attribution, and are transferrable in any school looking to understand Education for Sustainable Development (ESD) and SDGs in their own outdoor and open-spaces at school.

What is Education for Sustainable Development?

"ESD empowers learners to take informed decisions and responsible actions for environmental integrity, economic viability and a just society, for present and future generations, while respecting cultural diversity. It is about lifelong learning, and is an integral part of quality education. ESD is holistic and transformational education which addresses learning content and outcomes, pedagogy and the learning environment. It achieves its purpose by transforming society",

UNESCO[1]

Lesson 1	
Resources	• Whiteboard images of the 5 Main Pillars of ESD - **Education for Sustainable Development** Economy- Environment- Society -Skills- Values[2]

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[1] https://www.unesco.org/en/education/sustainable-development

[2] https://www.biomebioyou.eu/esd.html

Cross curricular links	- Oral language[3] - History – UNESCO past and present[4] - Geography and Social Sciences - Digital media – Developing presentation skills[5]
Learning Objectives	To explore the five pillars of EDS and UNESCO relevant to young children. ***Economy- Environment- Society -Skills- Values*** To learn about Sustainability, Planet Earth and our school relevant to these five pillars.
Activity	1. Discussing each of the five ESD Pillars. ➢ Economy ➢ Environment ➢ Society ➢ Skills ➢ Values

Pupils to research each of the Five Pillars of ESD over the coming week, and note One significant point from each Pillar that is important for them and for our school's ethos and Planet Earth.
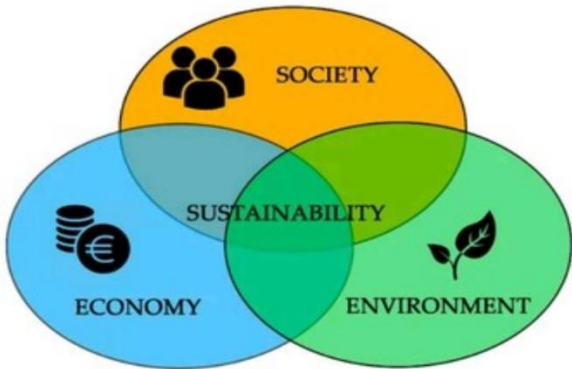
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[3] https://www.unesco.org/en/education/languages
[4] https://www.unesco.org/en/history
[5] https://www.youtube.com/watch?v=8IbheB2-ixM

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Lesson 2

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Resources

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- Whiteboard images of the 5 Main Pillars of ESD - **Education for Sustainable Development –**
Review and Reflect

  ➢ Whiteboard images of the Interconnectivity of Society – Economy and - The Environment when it comes to sustainability

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Cross curricular links

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- Oral language[6]
- Social Sciences[7]

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Learning Objective

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To gain a deeper understanding of Sustainable Development and the Sustainable Development Goals.

To associate these SDGs with our Society, Our Economy and our Environment. (Our school environment in particular)

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Activity

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1. Pupils watch the short, YouTube presentation on ESD and SDGs[8]
2. Pupils break into groups to discuss the YouTube video
3. Based on lesson 1, ESD, pupils draw a storyboard to record their discussion
4. Pupils feedback on their findings

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[6] https://www.weforum.org/agenda/2022/06/how-children-are-helping-to-make-their-families-more-eco-friendly-new-research/
[7] https://www.youtube.com/watch?v=7V8oFI4GYMY
[8] https://www.youtube.com/watch?v=7V8oFI4GYMY

	5. There is an open discussion on all aspects of ESD and SDGs with particular focus on our school's outdoor spaces, and ways in which we can develop a sustainable and Green and Eco outdoor classroom and space for the school.

This is lesson 2 and the final theoretical lesson on ESD and SDGs. The students are now tasked in the coming week with ways in which we and they can transform our outdoor spaces as Eco areas and Green areas for wellness, and play.

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Lesson 3

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Resources	• Whiteboard image of STREAMS Education[9]
Cross curricular links	• Oral language • Science • Technology • Literacy • Engineering • Maths • Sustainability
Learning Objectives	To review the findings of lessons 1 and 2 with particular emphasis on ESD, SDGs and our Eco focus on open classroom spaces in our school

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[9] https://www.biomebioyou.eu/streams.html

	To look at STREAMS Education an understand the connection between ESD, SDGs and STREAMS relevant to our school and Earth.
Activity	1. Show the STREAMS Education Graphic and ask the students to make connections between it and the work undertaken in Lessons 1 and 2 2. Focus in particular now on our outdoor garden space and seek ideas as to how we might become Eco warriors and Sustainability Ambassadors in our school. 3. Draw up a plan of Action for the coming months to include the use of Digital and Green technologies also to assist us in our work. 4. Pupils break into work-groups to digitally record their plans and draw up their ideas. 5.
Pupils to share their findings and to discuss how they have shaped their ideas.	

Lesson 4	
Resources	• On the STREAMS Education https://www.biomebioyou.eu/streams.html website we go to the lessons at https://kidsgardening.org/resource-lesson-plans/ and focus on the Lesson - Sustainable Gardening Ideas from Around the Globe[10] • Downloadable Resource[11]
Cross curricular links	• Environment • Social Skills and Community
Learning Objective	Through this lesson, students will identify environmental challenges facing local gardeners or farmers, and then seek out solutions inspired by sustainable growing practices from around the world, relevant to our school open and garden spaces.
Activity	1. Arrange for students to interview local environmental leaders in your community to learn more about pressing issues/problems in your community — specifically, issues related to landscape and farmland management. 2. Ask students to draft their questions and then work in groups to refine them prior to the interviews. Encourage them to ask

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[10] https://kidsgardening.org/resources/lesson-plan-sustainable-gardening-ideas-around-globe/

[11] https://kidsgardening.org/wp-content/uploads/2021/04/Sustainable-Gardening-Around-Globe-lesson.pdf

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	questions that will enable them identify local problems (e.g., a river or other waterway challenged by pollution, tracts of land experiencing erosion, specific local animal habitats that are under pressure, etc.). 3. Ask students to keep in mind how these local issues might offer insights into issues on a global scale.
	Extend and expand this lesson from one focused on local environmental issues to environmental challenges on a global scale. Encourage students to choose one problem to explore. You can find information about their sustainable development goals for the planet at: http://www.fao.org/sustainable-development-goals/en/

*** *Lesson 5 is in PDF (attached) for the Eco Garden Outdoor Spaces Classroom.*

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