**Our Sustainable School: An Introduction to Sustainability**

**Overview:** During this lesson, pupils will be introduced to the key concepts of sustainability and models for thinking sustainably. They will begin by imagining the best possible future for their school and its potential to have a positive impact on the planet as well as its pupils. Next, pupils will learn about the [‘Development Compass Rose’](https://developmenteducation.ie/wp-content/uploads/2015/12/Development-Compass-Rose-Framework-full.pdf) and how this tool can be used to help make decisions in terms of their impact on environment, economy and society. Pupils will then be introduced to a global view of sustainability - the [Sustainable Development Goals](https://sdgs.un.org/goals) - learning how these have been developed with the aim of securing a better future for our planet and all living things. Finally, pupils will think locally once again, about the actions that they could take to help their school on its journey towards a more sustainable future.

**Who:** Upper KS2/Lower KS3

**Curriculum links**

We have designed these lessons to help teachers cover the following areas of the KS2 and KS3 curriculum:

**KS2 Citizenship-** Developing confidence and responsibility and making the most of their abilities:

* Talk about their opinions, and explain their views, on issues that affect themselves and society; Recognise their worth as individuals by identifying positive things about themselves and their achievements; Face new challenges positively by collecting information, making responsible choices, and ‘taking action’.

**KS2 Citizenship-** Preparing to play an active role as citizens:

* Research, discuss and debate topical issues, problems and events; Understand that resources can be allocated in different ways and that these economic choices affect individuals, communities and the sustainability of the environment.

**KS3 Geography**

* The use of natural materials and how human activity relies on effective functioning of natural systems.

**KS3 Citizenship**

* Students will study the roles played by institutions and voluntary groups in society, and the ways in which citizens work together to improve their communities, including opportunities to participate in school-based activities.

This session also addresses the aims of **DfE Sustainability and Climate Change Policy**, where all children learn about the importance of sustainability.

**Students will:**

This lesson will enable students to:

* Describe, in simple terms, what is meant by ‘sustainability’.
* State the three key components of sustainability (nature/ environmental, economic and social) and describe what is meant by each.
* Use the Development Compass Rose as a tool to assess the impacts of certain choices, in terms of sustainability, and justify their decisions.

**How Long?** 2 hours

**Resources**

For this lesson you will need:

* ‘Our Sustainable School’ slide deck (see downloads).
* Sticky notes.
* Big pieces of paper- for writing ‘People and Planet Friendly School’ statements.
* ‘Using the Development Compass Rose’ activity sheet (see downloads)
* Spring water statement cards (see downloads)

**Starting local [30 mins]**

* Slide 2 Begin by asking the class to imagine that, 10 years from now, your school has been nominated for the prestigious ‘Eden Project Award’ for being the most ‘People and Planet Friendly School’ in the country.
* Set the class the challenge- *“Your challenge today, is to develop a vision for this people and planet friendly school, prioritising what action needs to be taken now to make it a reality”.*
* Explain that they will need to think about how their school could not only be a great place to learn, but that it is also a place for people and nature to prosper and has a positive impact on the environment.
* Slide 3 Using the following question prompts, ask the children to imagine what the most people and planet friendly school would be like:
* Where do lessons take place?
* What does the outdoor space look like?
* Which subjects are taught?
* What kind of food is served at lunchtimes?
* How do people travel to and from school?
* How is everybody given the best opportunities to learn?
* What role do pupils have in this place?
* What actions do people take to save water and energy?
* What do people do with their rubbish?
* What else is special about the school?
* Ask your pupils to discuss these questions (or any others they think are important) and write down their ideas on sticky notes. These can be stuck on the board, next to the appropriate question, as they go. This activity could be done in pairs or small groups to encourage discussion and spark imagination. Pupils don’t need to have an answer for every question.
* After 5-10 minutes, read through all the sticky notes, validating their responses as you do so. At this point, refine their responses by grouping similar ideas together, and parking any responses that aren’t relevant or appropriate to the task.
* Slide 4 Explain to the class, that now they have gathered thoughts from everyone, they are now going to use these ideas to come up with a set of statements that describe the key features of the most ‘People and Planet Friendly School’ in the country. These could begin with the sentence starter: ‘The school that wins the Eden Project Award would…’
* As a class, collaboratively write 5-10 statements, tweaking and adjusting them as necessary until you have a set that everyone is happy with.

**Examples:**

*“The school that wins the Eden Project Award would be a place where nature isn't just something in books!*

*“The school that wins the Eden Project Award would be a place where* ***all*** *living things can thrive”*

*“The school that wins the Eden Project Award would treat everyone fairly”*

*“The school that wins the Eden Project Award would give every student the same opportunities to do well, no matter who they are or where they come from.”*

*“The school that wins the Eden Project Award would do things to help our planet, like recycling, planting trees, and using less energy, to make sure we have a healthy world to live in.”*

**The Bigger Picture (30 minutes)**

* Slide 5 Having developed and refined your set of statements, explain to the class that there are lots of organisations in this country and around the world who have been doing similar thinking to you - the Eden Project being one of them. However, instead of thinking about the best possible future for a school, the Eden Project has been thinking about how to run an organisation in a way that is not only prosperous, but that also ‘[demonstrates and inspires positive action for the planet](https://www.edenproject.com/mission)’ and all the living things on it.
* Slide 6 Ask the class if they have heard the word ‘sustainable’ anywhere before? Do they know what it means? Slide 7 Use the video [‘Sustainability in 4 minutes- Sustainable Explainable’](https://www.youtube.com/watch?v=t69P9_v7jrU) to introduce the class to the meaning of ‘sustainability’.
* Slide 8 Having watched the video summarise that, sustainability is about ‘[meeting the needs of the present without compromising the ability of future generations to meet their own need](https://www.britannica.com/topic/Brundtland-Report)s’.
* Slide 9 Ask the pupils to remember the three key considerations (or ‘circles’ in the video) for sustainability: Environmental, Social and Economic. Make sure the class understand what’s involved with each of these considerations.
* Slide 10 Explain that the Eden Project considers the three key elements of sustainability when thinking about the way they do things, from putting on big events to deciding what type of coffee to sell in the cafes. To do this, they often use a tool called [‘The Development Compass Rose’](https://developmenteducation.ie/wp-content/uploads/2015/12/Development-Compass-Rose-Framework-full.pdf). This is a useful tool for considering the positive and negative impacts of our choices as well as asking the all-important question, ‘Who decides?’

**Using the Development Compass Rose Activity**

* Slide 11 Ask the class to imagine they are the manager of the cafe at the Eden Project. Explain that they are going to use the Development Compass Rose to help answer the question: Should the Eden Project Cafe sell spring water?
* Provide each pair/small group of pupils with the statement cards related to the impacts of selling spring water (printed on A4) and a copy of the ‘Using the Development Compass Rose’ activity sheet (see downloads).
* Ask the pupils to read through the statements. After reading each one, they should decide which aspect of sustainability it relates to (Nature, Economy or Social) and whether it is a positive or negative impact. Once they have decided, they should place the card in the appropriate place on the activity sheet.

**Note:** It is possible for some of the statements to fit under more than one heading, in which case they should put that card between those two groups. If it could go in all three, they should put it somewhere in the middle.

* Having sorted all their statements, ask your pupils to share some examples of where they have put certain statements. Does everyone else agree they have put it in the right place?
* Return to the original question: Should the Eden Project café sell spring water?’ Explain that now they understand the Nature, Economic and Social impacts, they need to decide whether they think it is sustainable to sell spring water at the Eden Project cafe- this is the **‘who decides’** aspect of the Development Compass Rose.
* Pupils should consider the positives and negatives in relation to each area and decide what, as managers of the Eden Project café, they would do.
* Ask pairs/groups to record their answer on their sheet before sharing their decision with the class. When sharing their decision, they should be prepared to explain their reasoning.
* Slide 12 Summarize the activity by explaining to the class that there is not necessarily a ‘right’ or ‘wrong’ answer. However, it is important for us all to remember that the decisions we make throughout our lives have a wider impact than we may have previously realised. It is important to be ‘critical thinkers’ and use the information that we have available to make the best choices that we can at the time.
* Explain that by using the Development Compass Rose we can make sure that we are making decisions with people and the planet in mind. You can use it for making all sorts of decisions (big or small), from how you travel to school or what food you cook to how people plan new towns, roads, cities or produce food.

**Going Global (15 mins)**

* Explain that now we have thought about sustainability at a local and national level, we are going to think about it in a more global way.
* Explain that as well as there being lots of companies that care about sustainability, The United Nations, an international organisation made up of 193 countries, has also been putting a lot of effort into developing ways for countries to work towards a more sustainable future.
* Slide 13 Tell the class that all the countries of the United Nations have agreed on a joint plan for building a sustainable future (this is known as Sustainable Development). As part of this they have created the [Sustainable Development Goals.](https://sdgs.un.org/goals)
* Explain that these goals were created to achieve “peace and prosperity for both people and the planet both now and in the future”.
* Very briefly read through the goals but do not spend time explaining each of them because although some of these goals are easy to understand (i.e. “Zero Hunger”) others are more difficult to understand (i.e. “Industry, Innovation and Infrastructure”).
* Explain that, for this reason, many people are now talking about the [‘Good Life Goals’](https://sdghub.com/goodlifegoals/) which are the same things just written differently so they are not only easier to understand but also provide suggestions of what we can do to achieve each one.
* Show the Good life Goals on slide 14 and highlight what some of them are.
* Ask the students if any of these are similar to the statements, that the class produced at the beginning of the lesson, about their school?
* Explain that although there are 17 goals altogether, these too can be sorted into the three key areas of sustainability (Nature/ environment, Economic and Social).
* Slide 15 Lead a discussion about where the following three Good Life Goals would fit on the Development Compass Rose:

1. Treat everyone equally
2. Love nature
3. Help end poverty

* Can the pupils make suggestions of where some of the other good life goals would fit?
* Summarise that, to be truly ‘sustainable’, people all over the world must consider the impacts of our choices and actions in all three areas.

**Finally-Back to Local (30 mins)**

* Sum up what your pupils have learnt so far……”So, now we know what we want our school to be like in the future (a sustainable school), and we know how to make decisions with sustainability in mind (using the Development Compass Rose), and how that fits with global action on sustainability (the Good Life Goals) we are going to finish by coming back to our school again and thinking about the actions we can take here and now.”
* Slide 16 Show the class the Eden Project’s ‘Our Sustainable School’ poster.
* Explain that this poster shows many ways to run a sustainable school.
* Slide 17 Ask your pupils to think about your school now and point out any of the things, from the poster, that are already happening- after all it is important to celebrate the good things that you already do!
* Then, ask them to each pick one area from the poster that they think could be improved in their school, in terms of sustainability.
* Ask them to write a short paragraph, that could be presented to the school council, explaining what currently happens in this area and that offers suggestions about how to improve it. Pupils should refer to the Development Compass Rose during their paragraph.
* The sentence starters below could help your pupils to structure their paragraph:
* *I think that in our school we should consider doing…….. to make it more sustainable.*
* *I can see that currently we aren’t doing very well at this because……..*
* *If we put this plan into action is would have the following impacts on nature/ the economy/ socially….*
* *Therefore, on balance, I think it would be a sensible way to focus our efforts and help the school on its sustainability journey.*
* Share examples of work with the rest of the class and select some that could be given to the School Council for consideration. This links nicely with the **‘Who Decides’** aspect of the Development Compass Rose.
* Finish the lesson by referring to the original challenge. Explain that by creating a vision for their school and thinking about the actions they could take here and now, they have taken the first step towards become the most ‘People and Planet Friendly School’ in the country. Remind them that sustainability is a journey and to celebrate their successes along the way.

**Following On - Suggested Projects**

* Using the questions (speech bubbles) from the ‘Our Sustainable School’ poster as prompts, choose one or more aspects of sustainability to investigate. This could include, but is **not limited** to:

1. **Investigating where your school dinners come from.**

* Use the Development Compass Rose to help you decide whether your school dinners are sustainable. Research where they come from and talk to the people involved in making them (this could be either in your school or from the catering company) to try and find the answer the following questions:

**What impact do they have on the planet?** Where is the food from? How does it travel to your school? Is it seasonal?

**What impact do they have on people?** Is it healthy? Does eating it help provide jobs for people in your community?

**What impact do they have on the economy?** Are the meals cost effective? Are they good value for money?

* Having investigated where your dinners come from, think about how you could ‘take action’ and help your school on its journey to making them more sustainable.

**Useful link:** The Economist Educational Foundation have produced an hour-long lesson plan that explores the amount of greenhouse-gas emissions produced by different foods, and encourages pupils to use this information to discuss how to make greener choices in relation to the food that we choose: <https://talk.economistfoundation.org/resources/food-greener-choices/>

1. **Investigating water and energy usage in your school.**
   * Obtain ‘usage’ data from the site management team at your school and find out when and where the most energy/ water is being used.
   * Start a campaign to remind pupils and staff not to waste energy or water unnecessarily (e.g. switching off lights and computers when they are not in use, not wasting water when washing your hands etc.)
   * Monitor the impact this has over the course of a week or two in your school by collecting more ‘usage’ data and seeing whether consumption of energy and water is going down.

**Useful link:** The National Education Nature Park’s Classroom Carbon Footprint Survey is a useful tool for investigating and compare the carbon footprint of classrooms around your school: <https://www.educationnaturepark.org.uk/resource/classroom-carbon-footprint-survey>

1. **Investigating waste production in your school.**

* Investigate how much waste is being produced around your school - rather than monitoring and weighing the rubbish yourself, this could be simply done by asking your school’s cleaning team to record how many bags of waste (rubbish that is not being recycled) they are collecting from around the school each day for a week.
* Start a campaign to encourage people to [Refuse, Reduce, Reuse, Repurpose and Recycle](https://www.rts.com/blog/the-5-rs-refuse-reduce-reuse-repurpose-recycle/).
* Monitor the impact that this has had by collecting travel again a few weeks later and seeing if there has been a shift towards more sustainable travel.

**Useful link:** STEM Learning’s ‘Waste Investigators’ pack contains a range of different activities based on the theme of waste. The activities cover a mixture of topics including: the environment and pollution, recycling, separating materials, waste degradation, and digestion: <https://www.stem.org.uk/elibrary/resource/34387>

1. **Conduct a traffic and travel survey.**

* Over the course of a week, collect data about how people travelled to and from school, recording your findings in a graph.
* Start a campaign to encourage staff and pupils to travel in more sustainable ways (walking or walking part of the way, riding a bike or scooter, lift sharing, using public transport).
* Monitor the impact that this has had by collecting travel data again a few weeks later and seeing if there has been a shift towards more sustainable travel.

**Useful link:** The Institute of Engineering and Technology have produced a useful maths-based challenge where pupils calculate the carbon footprint of different methods of travel. This activity could be used as an extension to your traffic and travel survey: <https://education.theiet.org/secondary/teaching-resources/comparing-the-carbon-footprint-of-transportation>

1. **Making space for nature.**

* Investigate the outside space around your school, looking for wild places (that haven’t been mown within an inch of their life) where nature is able to survive and grow.
* Look for opportunities to make more space for nature around your school i.e. places that could be let grow more naturally, places where you could sow wildflowers and places where you could create habitats for animals and insects.
* Campaign for these areas to be made more nature friendly.

**Useful links:** The following Eden Project resources to help make space for nature within your school:

* **Wildflowers in schools:** <https://www.edenproject.com/learn/schools/how-to-grow-wildflowers-in-your-school>
* **How to make an insect hotel:** <https://www.edenproject.com/learn/eden-at-home/how-to-build-an-insect-home>
* **How to make a compost heap:** <https://www.edenproject.com/learn/eden-at-home/how-to-make-a-compost-heap-10-top-tips>

**Other Useful Links:**

These project ideas could all be part of a much larger project on developing a sustainable school. The DfE Climate and Sustainability Strategy details measures that schools will be required to take. There is a wealth of resources and organisations set up to help schools on their sustainability journey and achieve the aims outlined by this strategy:

* Read the DfE Climate and Sustainability Strategy [www.gov.uk/government/publications/sustainability-and-climate-change-strategy](http://www.gov.uk/government/publications/sustainability-and-climate-change-strategy)
* Sign up to Let’s go Zero. Let’s Go Zero is the national campaign uniting teachers, pupils, parents and their schools as they all work together to be zero carbon by 2030. [letsgozero.org/](https://letsgozero.org/)
* Get inspired by reading about the journey of other schools [letsgozero.org/school-case-studies/](https://letsgozero.org/school-case-studies/)
* [www.gov.uk/guidance/sustainability-leadership-and-climate-action-plans-in-education](http://www.gov.uk/guidance/sustainability-leadership-and-climate-action-plans-in-education)
* The National Education Nature Park website has curated a library of curriculum-linked resources to help you start your Nature Park journey. [www.educationnaturepark.org.uk/resources](http://www.educationnaturepark.org.uk/resources)
* The Creative Star website contains lots of practical ideas about learning and playing outdoors that have been written and/or curated by Juliet Robertson – a former education consultant who specialised in learning and play outside. [creativestarlearning.co.uk/](https://creativestarlearning.co.uk/)
* Written by David Dixon, Leadership for Sustainability: Saving the planet one school at a time is a stirring and informative green print to help school leaders play their part in making their schools more environmentally friendly and better places to learn for all. [crownhouse.co.uk/leadership-for-sustainability-saving-the-planet-one-school-at-a-time](http://www.crownhouse.co.uk/leadership-for-sustainability-saving-the-planet-one-school-at-a-time)
* Find out more about the Good Life Goals [www.oneplanetnetwork.org/programmes/sustainable-lifestyles-education/good-life-goals](http://www.oneplanetnetwork.org/programmes/sustainable-lifestyles-education/good-life-goals)

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