# STEAM EDUCATION FOR SUSTAINABLE DEVELOPMENT and FUTURES LITERACY

#### **SGD13 Climate Action and Sustainable Development**



**Programme Phase: Strand 3 Global Connections** 

**Leaving Certificate Support Lessons** 

**TOPICS: Biodiversity, Environment, Science, Sustainability** 













# SDG 13 Strand 3 Global Connections Support Climate Action and Sustainable Development



Climate Action & Sustainable Development

Strand 3

**Global Connections** 

# 4 QUALITY EDUCATION 11 SUSTAINABLE CITIES AND COMMUNITIES 14 LIFE BELOW WATER 15 ON LAND 15 ON LAND

#### **Module Summary: CASD Global Connections**

This pathway of curated lessons from Muinín Catalyst programmes is designed to support students and teachers engaging with Strand 3 of the Climate Action and Sustainable Development (CASD) Senior Cycle subject.

Strand 3 invites learners to situate their own experiences of climate action and sustainable development within wider systems of governance, economics, and global inequality. Through these lessons, students critically examine how decisions are made, who holds power, and how the costs and benefits of climate change are distributed across the world.

Grounded in inquiry, design thinking, and futures literacy, the lessons enable students to explore pressing issues such as ecological debt, climate loss and damage, and the principles of climate justice. Learners are encouraged to connect local perspectives with global systems—investigating how innovation, technology, and nature-based solutions can contribute to just and sustainable transitions.

For teachers, the pathway offers scaffolded resources that align with the NCCA's vision for a student-centred, values-driven Senior Cycle. They support dialogue on sensitive but essential issues, including inequality, responsibility, and global citizenship, while providing practical tools for fostering research, collaboration, and critical thinking.

For students, Strand 3 is an invitation to think globally and act with agency—developing the knowledge, empathy, and confidence to imagine alternative futures and to participate in shaping more just, equitable, and sustainable worlds.

This pathway bridges curriculum and action, helping schools embed Strand 3 in ways that nurture critical awareness, responsibility, and hope, qualities that are vital for young people to thrive as ethical leaders in a globally interconnected world.

#### Week 10 S3.1.: Lesson 1: Introduction to Circular Design Thinking

Taken from our Future of Food Programme's Module 1, From Food Waste Food Gain, What is Circular Design Thinking helps Learners to stop taking, using, and wasting natural resources and materials. Using Circular Design Thinking methods, we can discover and create new ways to reuse, recycle, and regenerate important resources such as food.

# Resources: Worksheet: Understanding Circularity Worksheet: Introduction to Circular Design

Week 12 - 15: Uses lessons from our Eco-Agency Youth-led Action programme. Future of the Ocean, Climate Change Engage that can be used to explore Strand 3, Global Connections See also Applied Learning Tasks Support for lessons to support and develop research skills 4.2.1

**S3.2** Lesson 10: Eco Agency: Exploring What We CAN do - Introduction to Youth Leaders Involving young people in research and evaluation results in valuable insights and fosters the growth and empowerment of youth participants. In this lesson learners will present their research on youth learners and change makers.

Resources: Worksheet: Action 2 Youth Leaders and Change Makers - Instructions

#### **Lesson 11:Eco Agency: Youth Leader Case Study Presentation**

In this lesson, learners will present their research and case study to their peers. Involving young people in research and evaluation not only results in valuable insights for both communities and individuals but it also fosters the growth and empowerment of youth participants.

Resources: Worksheet: Youth Leader Presentation Checklist, Teachers' Guide Youth Action presentation

#### S3.4 Lesson 2: Ocean Connection

In this lesson, learners are encouraged to use observation skills to understand the interconnections between the land and ocean interface and human and ocean interface and further understand our influence on the ocean.

Resources: Worksheet: Connecting to the ocean, Worksheet: Guided Observation,

Worksheet: The Blue Mind- Ocean Connection

#### S3.4 Future of the Ocean Lesson 7: Local Coastal Pollution 2

In this lesson, learners will develop observational skills including data gathering and analysis SDG14 Future of the Ocean Micro-module 1: Introduction to Ocean Literacy SDG14 Introduction to Ocean Literacy around collected waste or open-source data online.

#### Resources include: Worksheet: Beach clean review & analysis

Week 13: S3.6 taken from our game design programme, Climate Change (CCE) see here for programme overview

#### Week 15 S3.6: CCE Lesson 4: Mitigation and adaptation

In this lesson, learners are introduced to the concepts of mitigation and adaptation, and identifying opportunities for learners to take climate action by looking at their own behaviour and how they might reduce their impact.

Resources include: Video: Climate action- part 1-mitigation, Video: Climate action- part 2- adaptation, Support: Climate Mitigation Chart, Support: Climate Game Themes

S3.8 and S3.9 lessons are taken from our Future of the Ocean, Offshore Renewable Energy and our game design programme, Climate Change (CCE) see here for programme overview

S3.8 FoO: Lesson 1: Introduction to Wind Energy and Sustainability In this lesson, learners are introduced to renewable energy, focusing on wind power's environmental impact and advantages. By the end of the lesson, learners are primed with the foundational knowledge necessary to embark on an exploration of wind energy's intricacies and its broader implications.

Resources: Yes / No Worksheet

#### **Lesson 2: Analyse Maps Related to Onshore Wind Farms**

In this lesson, learners engage with interactive online maps displaying wind turbine generation capacity. This lesson fosters digital navigation, data interpretation, and analytical skills in understanding wind energy's geographical distribution and impact.

**Resources: Onshore Wind Farms Worksheet, Teacher's Notes** 

#### **Lesson 3: Exploring Offshore Wind Farms**

In this lesson, learners virtually explore the world of wind energy through three videos. They begin with a tour of Arbuckle Wind Farm, gaining insight from the Operations Manager's drivethrough. After exploring a number of professions Learners craft 'day-in-the-life' diaries for construction workers, considering elements like weather, safety, turbine size, and the offshore environment.

Resources: Day-In-The-Life Worksheet

**S3.9 CCE Lesson 9 Working with Nature: Nature-Based Solutions & Green Infrastructure 1**Adapting to climate change involves rethinking how we design the places where we live, work and play. This lesson introduces learners to the closely associated concepts of 'nature-based solutions' and 'green infrastructure'. Key terms related to these concepts are defined.

**S3.9 CCE Lesson 10 Working with Nature: Nature-Based Solutions & Green Infrastructure 2** This lesson builds on Lesson 9 and deepens the learners' understanding of key concepts and terminology presented in lesson 9.

Resources: Flipped Classroom: Vocabulary Video: 'Nature-Based Solutions'

#### Week 17 S3.4 Evaluating Sources: The C.R.A.A.P Test

When conducting research, it is important to find quality information and avoid misinformation or "fake" information. Therefore, critically evaluating your sources is a necessary part of research.

#### Strand 3 Alignment Grid

Lesson	Strand 3 Focus	Linked Global Justice/Power Prompt
S3.1 Circular Design Thinking	Governance, economics, innovation	Which actor (government, industry, community) holds the most responsibility for making this circular idea scale, and why?
S3.2 Youth Leaders (10–11)	Global citizenship, civic agency, inequality	Choose at least one youth leader from a climate-vulnerable region. Who has power in their context? How does their work highlight loss & damage or ecological debt?
S3.4 Ocean Connection & Local Coastal Pollution 2	Transnational systems, ecological debt	Where does this pollution originate? Who benefits, and who pays the cost?
S3.6 CCE Lesson 4: Mitigation & Adaptation	Governance, economic forces, justice	Which options shift costs onto low-income groups or Global South communities? How could policy redesign address this?
S3.8 Offshore/Onshor e Wind Lessons	Innovation, economic transitions, governance	Who are the key stakeholders in wind energy? How can benefits be shared fairly among communities, developers, and the state?
S3.9 CCE Lessons 9–10 (Nature-Based Solutions & Green Infrastructure)	Nature-based solutions, just transitions	If the same flood risk were managed with a seawall vs wetlands restoration, who gains and who loses, now and in 30 years?
C.R.A.A.P. Test (Evaluating Sources)	Futures literacy, governance, inequality	Whose interests are represented in this claim? Who funds it, and who might be excluded from the narrative?

#### **Using the Resources:**

If you wish to use these resources, we can offer an induction and online support throughout the module to help you plan integration into your projects and timetable. To register for this option, please contact us e:hello@futurefocus21c.com For more information on the resources please visit www.muinincatalyst.com

#### Setting up an online learning environment for the lessons on this module:

Our lessons integrate the use of virtual learning environments. To ensure seamless use of our lessons, a module should be setup on your school's virtual learning environment such as Teams, Google Classroom, etc. Learners are encouraged to upload documents to share with their peers. If your virtual learning environment does not support document sharing, we recommend OneDrive or Google Drive.

You can also use Google Sites or Microsoft Sway to encourage learners to present their work over the year - this can easily be set up to reflect the aims of TY and provide a showcase for their work as well as assessment tool.

#### **Setting up a Canva Education account:**

As our lessons integrate design, our lessons also refer to Canva. Educators and schools can open a free Canva for Education account by registering <a href="https://example.com/here:">here:</a> Canva for Education provides primary and secondary school teachers and students with premium features and templates. You can then also set up lessons and invite your learners to the class.

- Dr Anita McKeown, FRSA, FIPM, MEI is an award-winning artist|scholar and STEAM educator, co-designing values-based leadership through education and community processes at the intersection of art, equitable placemaking, Open Source Culture and Technology (ethical and ecological implications). She is also a certified as a Earth Charter Education for Sustainable Development Educator; Inclusive Teaching and Learning Educator, Enterprise and Innovation educator, Trauma-informed practioner and VUCA world design
- Ms. Rebecca White: UCD is an educator, consultant, trainer and curriculum developer, focusing on STEAM education, project-based, student-led learning and professional development for place-based learning. She is the Senior Learning Advisor for the Ocean Race and an Award-Winning Programme Developer
- External Expertise: We engage with <u>external experts</u> to bring contemporary and real-life knowledge to our resources. By working with these experts, we can ensure that our resources include future-focused learning and innovative ideas to expose learners to world-leading research in a digestible and accessible format. Learners are encouraged to critically think about and engage with knowledge and content in a learner-led and project-based manner.

For more information or to access online support in integrating the programme into your existing teaching please contact: hello@futurefocus21c.com

References and full programmes can be found here <a href="www.muinincatalyst.com/courses">www.muinincatalyst.com/courses</a>

#### **MM1: L1 WS UNDERSTANDING CIRCULARITY**





Ellen McArthur Foundation, 2024

In one sentence, explain what "circular" means. Work together to write your own group definition.
Why do you think circularity is important?
List 3 problems where you think a circular approach could make things better?
1
2
3

# MM1:L1 WS INTRODUCTION TO CIRCULAR DESIGN THINKING





IMAGE SOURCE: Circular Design Guide by Ellen MacArthur Foundation and IDEO

#### 1) Understand:

Learn about the problem or scenario through research. Understand who is involved, how nature is impacted, and what the key challenges are.

#### 2) Define:

Create a point of view that is based on the insights gathered in the understand phase. What are the users' needs or environmental challenges?

#### 3) Make:

Brainstorm lots of concepts in response to the needs and challenges identified. What are your core ideas and how can you show these? Consider drawing or making a simple paper prototype to demonstrate your ideas.

#### 4) Release:

Share your ideas or prototype and get feedback so you can continue to iterate and improve the next version. What worked? What didn't work?

You will use this Circular Design Thinking framework as a guide throughout your project module. Each lesson will give you an opportunity to put each phase into action so you can understand, define, make, and release ideas to help combat food waste issues.

Before the next lesson, let's quickly explore some of the things you might already be thinking about. There is no right answer so don't worry if you don't know too much at this stage!

# MM1:L1 WS INTRODUCTION TO CIRCULAR DESIGN THINKING



Understand: List 3 problems that you believe food waste creates:

1	
2	
3	
Define: Working together, choose 1 problem from your list and explain why we need solve it:	to
	_
Make: Can you work together to come up with an idea that might solve this problem? Try sketching out the idea but remember to keep it simple!	

Release: Put your sheets up on the class wall or board for everyone to see. Your teacher will facilitate a class discussion so everyone can have a chance to ask questions or give feedback about the activity.

NOTE: Practicing good time management will be very important during this activity.

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#### **L10TG** Youth Leaders and Change Makers Examples

SDG2, Food Waste Abi Ramanan: Abi is the co-founder and CEO of <a href="ImpactVision">ImpactVision</a>, a software platform that uses machine learning to reduce food waste. She is also a co-chair at the World Economic Forum's upcoming <a href="Annual Meeting of the New Champions">Annual Meeting of the New Champions</a>.

SDG3 - Teen Mental Health, Kwiri Yang: Kwiri is the founder and CEO of <u>LifeGyde</u>. The online platform is a space for young people to seek advice, guidance and support.

SDG 3, 10 - Paul Ndhlovu, Paul works as a radio champion at <u>Zvandiri</u> in Zimbabwe to help end poverty, ensure good health and wellbeing, and access to quality education for people living with HIV and AIDS.

SDG4 - Early years edutainment, Doreen Kessy: Doreen is COO of <u>Ubongo</u>, a multi-media educational platform in Africa. Using the power of entertainment and mass media, the company provides educational material at low cost and high volume and scale

SDG 5 - Gender Justice, Ronelle King: Ronelle from Barbados is a multi-award-winning Gender Justice Activist and the Founder of <u>Life In Leggings</u>, a Caribbean Alliance against gender-based violence. In 2016, Ronelle founded the viral "#LifeInLeggings" hashtag which was mobilized to create a safe space for women who had experienced sexual violence.

SDG11 - Sustainable Architecture, Basima Abdulrahman: Basima is an Iraqi structural engineer who is passionate about the environment. She founded <u>Kesk</u>, one of Iraq's first sustainable architecture consultancies, to build greener buildings in her homeland

SDG12 - Social Enterprise, Oana Toiu: Oana is the founder and general manager of Social Innovation Solutions, which offers training and consultancy in social innovation and entrepreneurship. Before that, she led the team that set up <a href="Mesteshukar BuitQ">Mesteshukar BuitQ</a>, a social enterprise focused on traditional Roma crafts and skills.

SDG13: Climate Advocacy, Eddy Frank Vásquez-Sánchez: Eddy, is a youth climate and oceans advocate from the Dominican Republic. In 2016, with other youth fellows, he created "Juventud Sostenible", a platform for youth advocacy to help achieve sustainable development and ensure that young people are actively included in the process.

SDG14 - Ocean Conservation, Finlay Pringle, Finlay is a 14-year-old Fridays4Future campaigner ocean enthusiast and shark <u>ambassador</u> from Ullapool, in N. Scotland.

SDG 5, 17: Heela Yoon; Heela, is the Founder of <u>Afghan Youth Ambassadors for Peace Organization</u> (AYAPO), a grassroots NGO working in the Eastern provinces of Afghanistan focusing on UN Security Council Resolution 1325 on Women, Peace and Security and Resolution 2250 on Youth, Peace and Security, as well as local peacebuilding.

#### **L10WS:Youth Leaders and Change Makers - Instructions**



#### **Action 1 Youth Leaders and Change Makers - Instructions**

Research some inspirational young people and their call to action and present a case study.

Case study (n.) A case study requires you to analyse and write about a person, a scenario or an organisation

STEP 1:
IDENTIFY A
YOUTH
LEADER TO

RESEARCH

STEP 2:
THE
RESEARCH
STAGE GATHER
INFORMATION

STEP 3:
PREPARE
FINDINGS FOR
PRESENTATION

#### Step 1

Choose a youth leader/ activist/advocate from your local or national community or someone from the international community and find out as much information as possible about your chosen leaders. What are questions you might ask them and the responses you think you might get?

#### Step 2:

Gather information using the question prompts and the themes and sources on the Flipped Classroom: Youth Leaders and Change Makers - Guide page. You may use the options or choose your own inspirational leader to research.

#### Step 3

Prepare your findings to present to peers in a 5-minute presentation, including time for a Q&A session. You have creative freedom as to how you will present your findings. Examples below:

#### Interactive:

Eg. A scavenger hunt you you create with guided clues that lead to key information which you will then elaborate on with further explanation of what you learned.

#### **Artistic:**

This could be a painting, a digital drawing, or sculpture. Ensure you verbally present your information to accompany your creation.

#### 10WS:Youth Leaders and Change Makers - Instructions





STEP 2: THE RESEARCH STAGE -GATHER INFORMATION

#### **Question Prompts**

- 1. Who is your choice of youth leader or change maker? Choose your own or from one of the three below.
- 2. What is their area of interest? What are they raising awareness of? advocating for?
- 3. What is their motivation and inspiration?
- 4. What is their objective?
- 5. What have they achieved to date?







Example: Clover Hogan, 24-year-old climate activist and the founding Executive Director of <u>Force of Nature</u> - a youth non-profit mobilising mindsets for climate action.



STEP 3:
PREPARE
FINDINGS FOR
PRESENTATION



Working in pairs, please give definitions for the following 5 words, you can use a dictionary and then rewrite them

eadership	
Delegation	
Teamwork	
Planning	
Organisation	
nganisation ————————————————————————————————————	



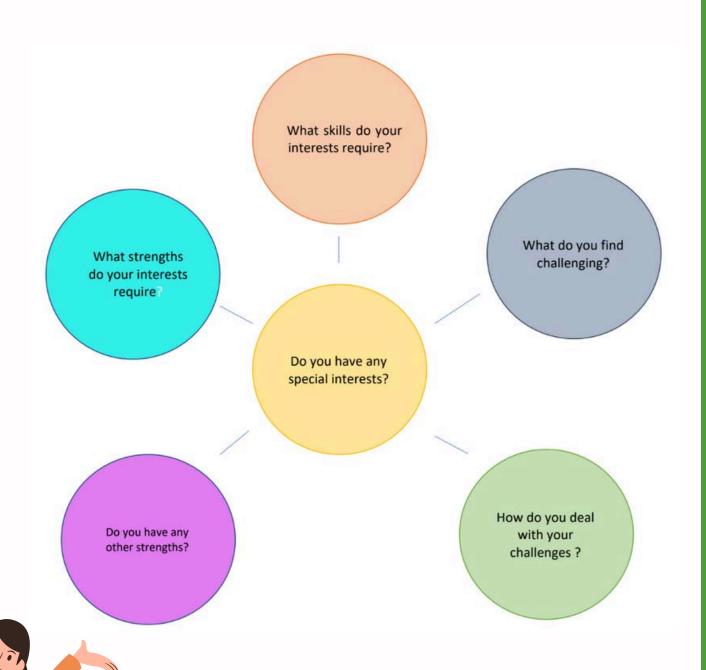
Working in pairs please discuss and organise the following skills in order of most essential to least essential for a leader to have.

Using a scale of 1 to 4 with 1 being the most essential and 4 being the least essential, number the following skills and give a reason for you decision

Delegation
Teamwork
Planning
Organisation
Communication
Finally are their any skills you would add?
Would they be more essential or important that the ones already listed?



Individually, consider the areas in your life where you take roles and responsibilities and identify your leadership qualities, such as initiative, responsibility, communication skills, and the ability to inspire and motivate your peers.



Use the Map of Me, starting with your hobbies / interests to get started and add all the skills invovled.

Think about how you might need to communicate with others, what you find difficult and how you overcome it, think about the leadership skills you have already defined - planning, delegation, organisation and team work to help you identify your own leadership skills in the activities you do.

#### **L11WS Youth Action Presentation Checklist**



#### **Case Study Presentation Checklist**

- Was it clear who the youth leader is and where they are from?
- Was the cause they advocate or fight for clear?
- Was how they got started in activism clearly explained?
- Did the speaker explain why they chose this person?
- Did the speaker identify the specific issues the youth leader is interested in ?
- Was what makes this youth leader interesting to the them expressed?
- Did the speaker discuss their prior and post knowledge?



Use the space below to make any notes about your 'takeaways' from each presentation. A 'takeaway' is the key message or important aspect to remember (take away) from the presentation. Each group will be asked to share these.







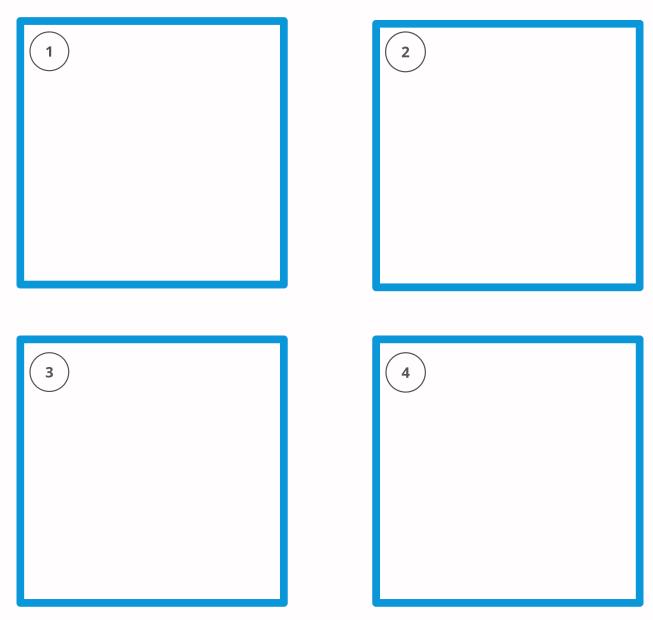
#### **MM1: L2WS CONNECTING TO THE OCEAN**



#### **Activity 1**

In small groups, discuss the following questions. Nominate one person in the group to be the notetaker, who will record the main ideas of the discussion.

- 1. How is the ocean important to me? What is my personal connection to the ocean?
- 2. How is the ocean important to my community? My country? The world?
- 3. What is the best way to communicate the importance of the ocean to people our age?
- 4. What decisions can I make today to be a better steward for our ocean?



Nominate one person in the group to be the spokesperson. They will share the main ideas that the notetaker recorded during the discussion.

#### **MM1: L2WS GUIDED OBSERVATION**



#### **Activity 2**

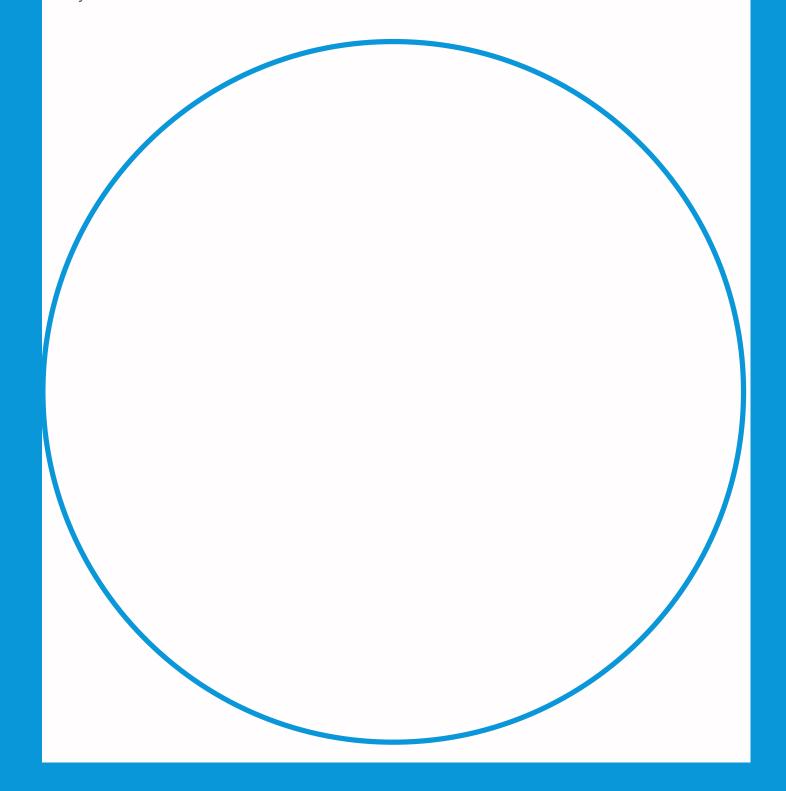
Observation 1: what can you hear, smell, feel?

Observation 2: middle of the circle: what do you observe right next to you?

Observation 3: around the middle of the circle: what do you observe 5m around you?

Observation 4: at the next stage of the circle: what do you observe 20m around you?

Observation 5: at the outer part of their circle: what do you observe all around you, including the sky and land?



#### MM1: L2WS THE BLUE MIND- OCEAN CONNECTION



#### Discuss the following questions with a partner:

- What are your experiences with the ocean?
- Describe a memory you have with the ocean in it.
- Would you say you feel connected to the ocean? Why/why not?

#### How can we connect to the ocean?

- 1. Brainstorm with your partner how people who live far from the ocean could feel connected to it.
- 2. Select 2-3 ideas from your list. These ideas are the ones you are going to present to the class as ways of connecting to the ocean, even when you don't live near it.
- 3. Make notes on these key areas: xx, xx, xx. You can use the internet to help build your ideas.

#### **Presenting ideas**

- 1. Take it in turns to present your ideas on connecting to the ocean to the class.
- 2. While you are listening to the other pairs present, think of one question to ask them.
- 3. In between presentations, ask your questions.

#### MM1: L7WS BEACH CLEAN REVIEW & ANALYSIS

#### **Activity 1 Beach Clean Review**



- 1. Find a partner.
- 2. Using your observation cards from the beach clean, compare what was found.
- 3. Discuss the following questions:

How much does each container weigh?

- Did you find similar items during the clean? What was the most common item?
- How many recyclable items were found? Non-recyclable?
- What was the strangest item you found? How do you think it ended up on the beach?
- Do you think these items would be found on most beaches in the local area? Why/why not?

#### **Activity 2: Analysing local coastal pollution**

- 1. Form groups of 2-3.
- 2. Sort rubbish into the containers- 'Recyclable', 'Non-Recyclable', 'Organic', 'Other/Unknown'.
- 3. For the items that were put in the 'Other/Unknown' container, discuss why you selected that category.

Recyclable: \_\_\_\_\_ Non-Recyclable: \_\_\_\_\_

Organic: \_\_\_\_ Other/Unknown: \_\_\_\_\_

Circle the heaviest category.

What is the total weight of the four categories? \_\_\_\_\_\_

Is this more or less than you expected? Why?

Calculate what percent is non-recyclable, recyclable, organic and other/unknown by dividing the weight of each by the total weight then multiplying by 100.

Example: 5kg of recyclable items / 20kg total = 0.25,  $0.25 \times 100 = 25\%$  of the trash collected is

recyclable.

Discuss the results and implications

- What is the highest percentage? What could be the reasons for this?
- Are the recyclable items truly recyclable? Why/why not?
- What surprises you about the analysis of trash?
- What impact might this trash have had on the animals and the environment?
- What ways can we prevent this trash from reaching the beach?





# How to cut greenhouse gas emissions? Climate change mitigation

Make your voice heard

**Transport** 

Save Energy

Food Choice

Consume Less

> Help Nature

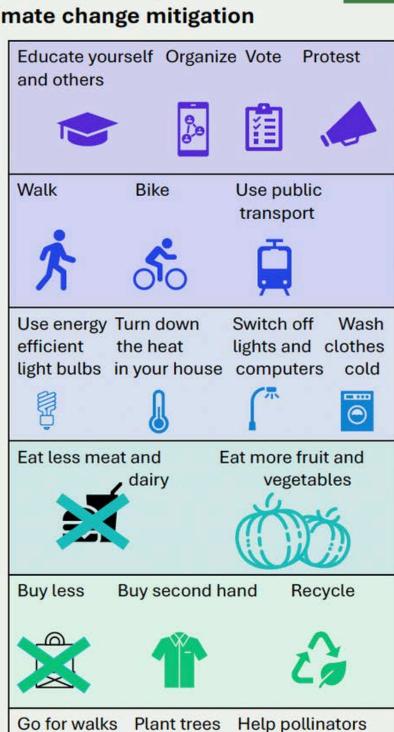
observe

Control invasive species

Restore peatlands

nature

By T. Hochstrasser



#### MM3: L1 WS YES / NO

YES / NO





# YES



### MM3: L1 WS YES / NO

YES / NO





NO



#### MM3: L2 WS OFFSHORE WIND FARMS



#### **OFFSHORE WIND FARMS**

Answer the following questions based on information you can find on <u>Eirgrid's website</u> and <u>Wind Energy Ireland's website</u>:

Website: Wind farm maps on Eirgrid website: https://www.smartgriddashboard.com/#all/transmission-map Website: Wind farm maps on Wind Energy Ireland Website: https://www.windenergyireland.com/about-wind/interactve-map 1. How many wind farms are in Ireland? 2. Where are they mostly located? 3. Name 5 different wind farms; why do you think they were named that? 4. What other types of renewable energy do you see on the map? 5. Which wind farm has the largest energy capacity, and what is that capacity? 6. What is the wind farm with the least amount of energy capacity; what is that capacity?

#### MM3: L2 WS OFFSHORE WIND FARMS



#### OFFSHORE WIND FARMS

STI STICKE WIND I AKWIS	
7. Why do you think there are such differences in capacity?	
8. Which year had the most new wind farms constructed?	
9. When was the first turbine constructed?	
10. Try and produce a bar chart showing the number of new wind farms each year – which will show an interesting trend. What is that trend?	commissioned
11. Calculate the amount of energy produced in each county or each prohe amounts quoted in the maps for each individual wind farm.	ovince by adding



Complete the following chart with what you think a day-in-the-life of a typical offshore wind-farm construction worker is like:

Location	
Date	
8am	
9am	
10am	
11am	
12pm	
1pm	
2pm	
3pm	
4pm	
5pm	



Complete the following chart with what you think a day-in-the-life of a typical offshore wind-farm construction worker is like:

6pm	
7pm	
8pm	
9pm	
10pm	
11pm	



Now, from your table above, create an infographic of your construction worker's day.

See examples of infographics here:

https://visual.ly/community/Infographics/technology/day-life

https://www.behance.net/gallery/64936517/A-Day-In-The-Life

#### **Step 1: Define the Purpose**

 Decide on the purpose of your infographic. What do you want to convey about the construction worker's daily routine?

#### **Step 2: Plan Your Content**

Make a list of the key activities and events you want to include in your infographic.
 Think about what makes their day unique and interesting.

#### Step 3: Choose a Layout

• Determine the layout of your infographic. Will it be a vertical or horizontal design? You can also browse online templates for inspiration.

#### **Step 4: Create Sections**

- Divide your infographic into sections or time intervals (e.g., morning, afternoon, evening).
- Use a ruler or grid lines if you're drawing on paper to keep your sections neat.

#### Step 5: Design Icons and Graphics

- Create icons or small illustrations to represent each activity or event in their day.
   These visuals should be simple and easy to understand.
- If you're using digital tools, you can find free icons or design your own.

#### Step 6: Add Text

- Write short descriptions or labels for each activity or event. Be concise and use clear, legible fonts.
- Include the time or approximate time for each event to give a sense of their daily schedule.

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#### Step 7: Add Colors

- Use colours to make your infographic visually appealing. You can assign specific colours to different sections or activities.
- Ensure that your colour choices are harmonious and easy to read.

#### **Step 8: Create a Title and Introduction**

- Add a catchy title to your infographic, such as "A Day in My Life" or something more creative.
- Include a brief introduction that sets the context for their day.

#### **Step 9: Arrange Elements**

- Arrange your icons, text, and graphics within each section, following a logical sequence from morning to night.
- Ensure that your infographic flows smoothly and is easy to follow.

#### Step 10: Review and Edit

- Double-check your infographic for accuracy, clarity, and any spelling or grammar errors.
- Ask a friend to review it for feedback.

#### **Step 11: Finalise and Share**

- Make any necessary revisions based on feedback.
- If you're creating a digital infographic, save it in a format suitable for sharing (e.g., JPEG, PNG, PDF).
- Share your "Day-in-the-Life" infographic with the class.

#### L9WS: Activity 2 Supporting Information: Mindfulness



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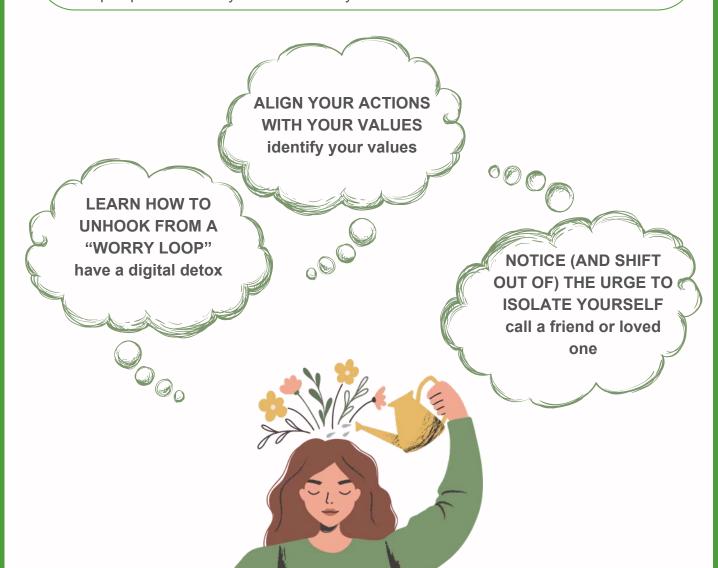
Mindfulness is a type of meditation in which you focus on being intensely aware of what you're sensing and feeling in the moment, without interpretation or judgment. Practicing mindfulness involves breathing methods, guided imagery, and other practices to relax the body and mind and help reduce stress.

**Mayo Clinic** 



#### TASK: In pairs consider the suggested three ways below

- brainstorm and discuss actions people can take in each way to start building their resilience toolkit
- share your thoughts with their partner on why time in nature can be beneficial to help cope with anxiety and eco anxiety.



#### L9WS: Action 3 Connect: Nature Mandala

#### What is a Mandala

A mandala is beautiful design that's just a circle, named by an old language called Sanskrit. Picture in your mind a special sacred symbol that people in many different places and from diverse backgrounds love. It looks like the sun's heat, the moon's

light, and the Earth's skin.

In Hinduism and Buddhism, the mandala is seen as a bright and important symbol. It's like a door to the universe and the very core of existence. Its elegant circle shape tells us about how everything is connected in the web of life. It's a gentle reminder that all the parts of life are woven together into a big, beautiful picture.







Tibetan Bhuddist Sand Mandala

#### The Nature Mandala

Similar to spiritual mandalas, nature mandalas creations reflect the idea of unity, forming a beautiful design that represents oneness. These mandalas are made using materials from nature, like leaves, petals, twigs, and stones, gifts from the Earth. Imagine an object, carefully designed with patterns that have the rhythm of life embedded. They always have a central feature with radiating and concentric circles as core aspects of the design.

#### **Nature Mandala Examples**







#### L9WS: Action 3 Connect: Making A Nature Mandala



#### A meaningful activity:

recognizes our connection to the earth and all its living things.



#### A way to express gratitude:

allows us the space and time to intentionally express gratitude for our earth and all its living things.

#### A reminder of the connections in life:

reminds us that everything is connected.

#### A learning opportunity:

learn about the earth and patterns found in nature and explore art, science, religion and life itself.

#### A time to observe natural patterns:

the chance to observe natural patterns like seasons, moon phases, the tides, and life and death.



## A fun and creative activity: can be done independently or with a larger

group.



• Use organic materials found in nature. Things like twigs, leaves, grasses, flowers, berries, pinecones, and acorns work well.

#### **INSTRUCTIONS**

- 1. Pick a peaceful place out in nature to create your nature mandala. Then, you will need to gather some organic materials around you to use. Things like twigs, leaves, grasses, flowers, berries, pinecones, and acorns work really well.
- 2. To create your nature mandala, place a meaningful item in the center. Then start placing other items you gathered near the center first and continue moving outward from the center until you've created a circular design.
- 3. Continue making patterns until your items are used up and your nature mandala looks complete. And remember, you can create it however you like! You could use bright colors or muted earth tones. Make it big or small. Make it as simple or complex as you want.

#### **L10WS:Youth Leaders and Change Makers - Instructions**



#### **Action 1 Youth Leaders and Change Makers - Instructions**

Research some inspirational young people and their call to action and present a case study.

Case study (n.) A case study requires you to analyse and write about a person, a scenario or an organisation

STEP 1:
IDENTIFY A
YOUTH
LEADER TO

RESEARCH

STEP 2:
THE
RESEARCH
STAGE GATHER
INFORMATION

STEP 3:
PREPARE
FINDINGS FOR
PRESENTATION

#### Step 1

Choose a youth leader/ activist/advocate from your local or national community or someone from the international community and find out as much information as possible about your chosen leaders. What are questions you might ask them and the responses you think you might get?

#### Step 2:

Gather information using the question prompts and the themes and sources on the Flipped Classroom: Youth Leaders and Change Makers - Guide page. You may use the options or choose your own inspirational leader to research.

#### Step 3

Prepare your findings to present to peers in a 5-minute presentation, including time for a Q&A session. You have creative freedom as to how you will present your findings. Examples below:

#### Interactive:

Eg. A scavenger hunt you you create with guided clues that lead to key information which you will then elaborate on with further explanation of what you learned.

#### **Artistic:**

This could be a painting, a digital drawing, or sculpture. Ensure you verbally present your information to accompany your creation.

#### 10WS:Youth Leaders and Change Makers - Instructions





STEP 2: THE RESEARCH STAGE -GATHER INFORMATION

#### **Question Prompts**

- 1. Who is your choice of youth leader or change maker? Choose your own or from one of the three below.
- 2. What is their area of interest? What are they raising awareness of? advocating for?
- 3. What is their motivation and inspiration?
- 4. What is their objective?
- 5. What have they achieved to date?







Example: Clover Hogan, 24-year-old climate activist and the founding Executive Director of <u>Force of Nature</u> - a youth non-profit mobilising mindsets for climate action.



STEP 3:
PREPARE
FINDINGS FOR
PRESENTATION



Working in pairs, please give definitions for the following 5 words, you can use a dictionary and then rewrite them

eadership	
Delegation	
Teamwork	
Planning	
Organisation	
nganisation ————————————————————————————————————	



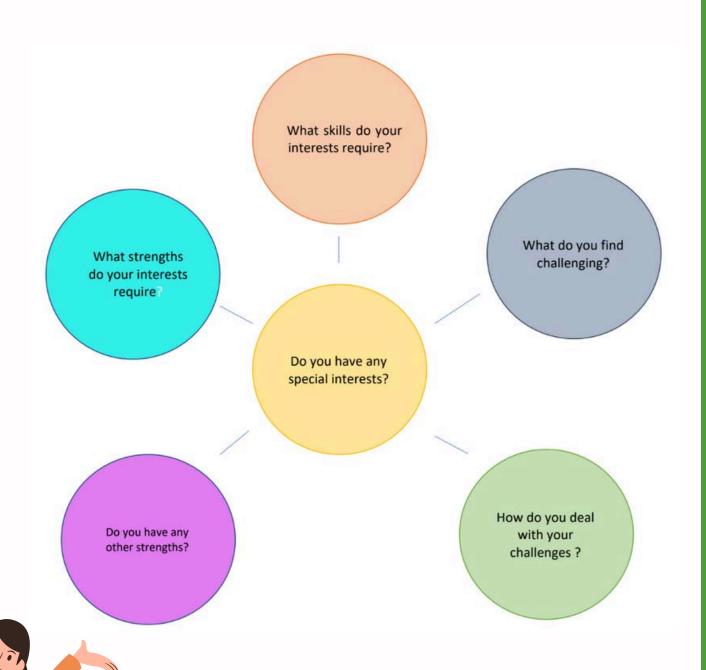
Working in pairs please discuss and organise the following skills in order of most essential to least essential for a leader to have.

Using a scale of 1 to 4 with 1 being the most essential and 4 being the least essential, number the following skills and give a reason for you decision

Delegation
Teamwork
Planning
Organisation
Communication
Finally are their any skills you would add?
Would they be more essential or important that the ones already listed?



Individually, consider the areas in your life where you take roles and responsibilities and identify your leadership qualities, such as initiative, responsibility, communication skills, and the ability to inspire and motivate your peers.



Use the Map of Me, starting with your hobbies / interests to get started and add all the skills invovled.

Think about how you might need to communicate with others, what you find difficult and how you overcome it, think about the leadership skills you have already defined - planning, delegation, organisation and team work to help you identify your own leadership skills in the activities you do.



#### FLIPPED CLASSROOM WORKSHEET

#### This is C.R.A.A.P.

When conducting research it is important to find quality information and avoid misinformation or "fake" information.

Therefore critically evaluating your sources is a necessary part of research.



What do you think is meant by the following terms when critically evaluating your sources? Write your ideas below.

- 1. Currency:
- 2. Relevance:
- 3. Authority:
- 4. Accuracy:
- 5. Purpose:

#### Now WATCH:

https://youtu.be/EyMT08mD7Ds

Take notes about the C.R.A.A.P. Test and what you should be looking for when critically evaluating sources to discuss later in class.

С	R	Α	Α	Р





# This is C.R.A.A.P. -EVALUATING SOURCES WORKSHEET

When critically evaluating sources it's important to consider the 5W's:

- · Who wrote this?
- What is the purpose of the resource?
- When was the resource published?
- Where is the information from?
- Why is this resource reliable?



#### TASK:

You are going to evaluate a source as directed by your teacher.

Try to answer the questions on the following pages relating to:

CURRENCY RELEVANCE AUTHORITY ACCURACY PURPOSE

After evaluating this source, decide if you think you would use it for your assigned task? Why or why not? If you are not sure, explain why.







#### This is C.R.A.A.P. - Evaluating Sources Questions

Cite the source you are evaluating:

Currency: the timeliness of the information

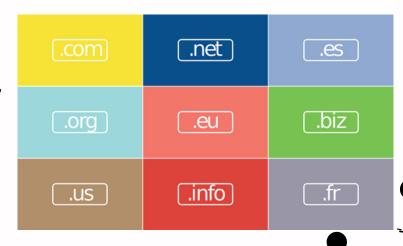
- When was the information published or posted?
- Has the information been revised or updated?
- Is the information current or out-of date for your topic?
- Are the links functional?

Relevance: the importance of the information for your needs

- Does the information relate to your topic or answer your question?
- Who is the intended audience?
- Is the information at an appropriate level (i.e. not too elementary or advanced for your needs)?
- Have you looked at a variety of sources before determining this is one you will use?
- Would you be comfortable using this source for a research paper?

Authority: the source of the information

- Who is the author/publisher/source/sponsor?
- Are the author's credentials or organizational affiliations given?
- What are the author's credentials or organizational affiliations given?
- What are the author's qualifications to write on the topic?
- Is there contact information, such as a publisher or e-mail address?
- Does the URL reveal anything about the author or source? Examples:
  - .com (commercial),
  - .edu (educational),
  - .gov (government),
  - .org (nonprofit organization),
  - or .net (network)







#### This is C.R.A.A.P. - Evaluating Sources Questions

Cite the source you are evaluating:

Accuracy: the reliability, truthfulness, and correctness of the content

- · Where does the information come from?
- Is the information supported by evidence?
- Has the information been reviewed or refereed?
- Can you verify any of the information in another source or from personal knowledge?
- Does the language or tone seem biased and free of emotion?
- · Are there spelling, grammar, or other typographical errors?

Purpose: the reason the information exists

- · What is the purpose of the information? to inform? teach? sell? entertain? persuade?
- Do the authors/sponsors make their intentions or purpose clear?
- · Is the information fact? opinion? propaganda?
- · Does the point of view appear objective and impartial?
- · Are there political, ideological, cultural, religious, institutional, or personal biases?



