

CLIMATE JUSTICE, HOPE AND ACTION



CONTENTS

PREPARATORY THINKING AND GROUNDING ACTIVITIES

Coping with Climate Change (PSHE)

SECTION 1: CELEBRATING PEOPLE AND PLANET

- Lesson 1: Inspired by the World Around Us (Art)
- 7 Lesson 2: People of Earth (Geography)

SECTION 2: CLIMATE CHANGING

- **Lesson 1:** Climate Change is Now (English)
- Lesson 2: Degrees of Concern (Geography)
- Lesson 3: Change Makers (History)
- Lesson 4: Understanding our Values (PSHE)

SECTION 3: DIGGING DEEPER

- Lesson 1: Interconnections (Geography)
- Lesson 2: Our Earth, Our Future: To Mine or Mind (Drama)
- **21** Lesson 3: A Circular Economy (Technology)

SECTION 4: SWITCHING TRACK

- Lesson 1: Renewable Energy (Geography)
- **Lesson 2:** Power in Your Hands (Science)
- 27 Lesson 3: Vision (Religious Studies)
- 29 Lesson 4:
 Solutions (Religious Studies)

SECTION 5: BE THE CHANGE

- Lesson 1: How does Change Happen? (PSHE)
- Lesson 2: Who Makes Change Happen? (PSHE)
- 35 Lesson 3: Hope and Action (PSHE)

PREPARATORY THINKING AND GROUNDING ACTIVITIES



Lesson title: Coping with Climate Change

Curriculum Area: PSHE

Lesson number: 1st preparatory lesson

While this is a one-hour lesson, if you teach PSHE in shorter form time periods the different elements of the lesson can be separated out to adapt to this.

Lesson Objective(s)

To strengthen students' connection with themselves, the Earth and their emotions, to reduce anxiety, and to help people deal with tricky emotions especially in connection with climate change. By doing this, students' wellbeing is supported as they face the issues surrounding climate change, so they can respond positively and with resilience.

Curriculum Links

National Curriculum England: show students how to talk about their emotions accurately and sensitively, using appropriate vocabulary. To promote students' self-control and ability to self-regulate, and strategies for doing so.

Curriculum Northern Ireland: In curriculum planning, schools must take into account their students' needs in relation to mental health and wellbeing.

Note: Climate change anxiety has been noted as an issue affecting many students, as they learn more about climate change through the news, social media and curriculum content.

This lesson will give students coping strategies for climate change anxiety and is intended to be taught before any other lesson in the scheme. All staff teaching the scheme should be aware of the grounding and gratitude suggestions, as they may be useful for students to draw on when thinking about some of the issues connected to climate change.

Lesson Outline:



What are the first 5-10 words that you think of when someone mentions climate change?

2 Spectrum activity 20 mins

Students will need to move about for this activity, so you may wish to move furniture. This activity is really valuable, but if moving around will be difficult for your class, then numbered cards could be used instead.

Read the statements out in turn. Students decide whether they agree or disagree and move to the side of the room which represents their view. Get the students to make their decision and find their position fairly quickly and get into position, then pop up the question "What's your reason?" Ask students to answer this question. This may lead to debate. Another interesting possibility is to ask someone why they think other people are standing on the opposite side of the room.

3 Introducing the topic 20 mins

There are 2 paths you could follow to briefly introduce the topic with slide 9:

Option 1: use our video and slide to introduce the students to different grounding techniques that can be used if they feel overwhelmed by the challenges of climate change.

Option 2: using the slides, take the students through different techniques to deal with climate anxiety, so they experience them and can draw on them when needed. Use the Grounding Activities sheet as your script. Please share the sheet with staff who are teaching any climate change lessons, so that they can draw on the techniques when needed.

4 Gratitude exercise 4 mins

For 2 minutes, writing in silence, students list everything they feel grateful for. If they say they've run out of ideas tell them to dig deeper or go smaller (e.g. I'm grateful for my breakfast today). What do they appreciate? What would they not want to live without?

Then spend a minute or two talking about how writing the list made them feel. Depending on your class, modelling this may be helpful. For example, you could share your own gratitude list that you created beforehand.

Gratitude exercise 8 mins

Read the information on the next slide about practising gratitude. As this is a short activity, the notes or letters will not be too detailed. You may prefer to spend more time on this task in a future lesson, writing letters instead of notes, and in this lesson spend more time on the open sentences task (slide 19), allowing students to generate their own.

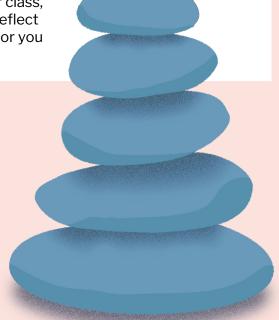
Gratitude exercise 4 mins

In pairs, students take turns completing the sentences on the board, which should help them think through things they're grateful for. While one person speaks, the other listens.

Plenary 4 mins

Students reflect on what they've discovered through this lesson. Depending on your class, they could write down their thoughts, reflect in silence, tell the person next to them, or you could take answers from volunteers.

- PowerPoint presentation
- Grounding script
- Video if following option 1
 (Can be found in corresponding PowerPoint)
- Numbered cards (if using)



SECTION 1: CELEBRATING PEOPLE AND PLANET, LESSON 1



Lesson title: Inspired by the World Around Us

Curriculum Area: Art

Lesson number: 1 of 1 with option to expand

Lesson Objective(s)

To consider how art can be used to demonstrate an appreciation of the natural world

Curriculum Links

National Curriculum England: evaluate and analyse creative works using the language of art, craft and design.

Northern Ireland Curriculum: develop an appreciation of the work of artists, designers and craft workers from their own and other cultures, past and present.

Lesson Outline:

Starter activity 5 mins

The world is an incredible place. What things about the world make you go "wow"? Write down 10 things and explain why you picked them.

2 Introducing the topic 4 mins

Read the stimulus information. If you'd like to extend this project over 2 lessons, then links to <u>blue marble</u> and <u>David Attenborough</u> provide more stimulus materials.

Key question: How might you use art to demonstrate how wonderful planet earth is? Discuss initial ideas in pairs.

How has US artist Carla Golembe conveyed this idea? What other ways could an artist use?

3 Meet the artists
12 mins

The next 4 slides explore different artists – O'Keefe, Constable, Van Gogh, and Goldsworthy. For each image, spend 1 minute to discuss focus question in pairs. 1 minute to read pop-up information. 1 minute to feed back and develop ideas in relation to the image and techniques used.

Animal, vegetable, mineral 6 mins

Play the game "Animal, vegetable, mineral – or geographical feature!" Imagine you're describing the Earth and its inhabitants to an alien from a desert planet like Mars. Get into pairs and verbally describe your chosen animal, vegetable, mineral or geographical feature without naming it! Take it in turns to see if your partner can guess what you're describing. For example, a volcano, bacteria, mountain, ocean, river, oak, air, clouds, sand, ice, waterfall, jellyfish, eel, koala, etc. Think about detail, colour and energy.



Artistic task 30 mins

Students choose one of the artists and one thing from nature that they feel inspired by to create their own piece of art. Suitable materials to be provided as well as stimulus image. This activity could be extended over more than one lesson if you would like to spend more time exploring the techniques of these artists and give students more time to complete the task.



Review and reflect task. If extending over more than one lesson, peer assessment could be included at this stage.



SECTION 1: CELEBRATING PEOPLE AND PLANET, LESSON 2



Lesson title: People of Earth **Curriculum Area:** Geography

Lesson number: 1 of 1

Lesson Objective(s)

To reflect on social and global inequalities, their causes and effects (with specific reference to climate change) and on the possibility of change.

Curriculum Links

National Curriculum England: understand how human and physical processes interact to influence and change landscapes, environments and the climate.

Northern Ireland Curriculum: Investigate the impact of conflicts between social, economic and environmental needs, both locally and globally. For example, erosion, flooding, pollution, biodiversity loss, climate change, desertification, deforestation etc.

Note: To help you feel confident in the delivery of all elements of this lesson, further background information and resources for teachers to gain more knowledge on the issues raised can be found here.

Lesson Outline:	
Starter activity 3 mins	See who can get the nearest. For a more up-to-date population figure, go here (you can watch with the students). Pop up the Williams quote and ask them to think about it for a minute.
The world as a village 6 mins	Talk the students through the next slide, then watch the short video <u>here</u> . Students talk in pairs about what surprises them most about the video.
Inequality exercise 5 mins	Students spend a couple of minutes writing their thoughts on inequality. Briefly share some ideas from the class. Pop up the next 3 questions – students decide "yes or no" – discuss their answers briefly.
Inequality exercise 7 mins	Students answer the questions in their book (ensure understanding of inequality is secure first). Ask some students for the answers they've given. Read the words on the blue pop-up as an introduction to the video on the next slide.
Monkeys and bananas 6 mins	Watch the monkey and banana experiment video here (2:17min) then repeat 2 of the questions from the last slide. As a class, discuss the third question. Note: There's some debate as to whether this experiment happened as described. Regardless, this is a popular story and can be seen as a parable for our time – it's featured in TED lectures, online and in motivational speeches



The Industrial Revolution 8 mins

Talk the students through the image. Then show the questions one at a time. Answers:

- 1. The Industrial Revolution.
- 2. Industrialised farming = more food, global trade = greater wealth, revolution in healthcare = longer life expectancy... loads of others.
- 3. Colonialism, slave trade, exploitation of resources.

Discuss the fourth question as a class.



Students are given persona cards. Ensure students understand the cards, as they order them in terms of wealth at the beginning of the Industrial Revolution. The names of the characters are to be placed across a wealth line created on the board and moved around by the teacher, in agreement with the students. You can use slide 9 to move the characters around if you have an interactive whiteboard, or you may use blue tac and cards. Students then reflect on whether the Industrial Revolution made each persona better or worse off.

Depending on prior knowledge of the class, elements of information may need to be fed in by the teacher (please see our information resources if you'd like more information in any of the relevant areas).

8 Climate Change 3 mins

How is this relevant to climate change? 1 min think, then 2 min to discuss answers.

9 Great-great grand children 7 mins

Students consider the potential situation for the great-great-grandchildren of the people on their persona card. There is a lot of potential for discussion. You may want to repeat the spectrum activity for informal discussion to take place as the students find their place on the spectrum. Or you might want to remain seated and discuss in a more formal way as a whole class. Depending on the knowledge of your class, some information may need to be fed in by the teacher.

Meles Zenawi 5 mins Students read Meles Zenawi's message (check in on unfamiliar vocabulary). They then rewrite this message in their own words. Some of the topics in this lesson are emotive. If you find that students are unsettled by some of the themes, then replace this activity with one of the grounding activities from the resource pack.

Plenary 3 mins

Depending on time, you could discuss the relevance to the monkey and bananas story or use this slide as an introduction to the reflection questions about the choices we have. Click to go through the 3 questions/comments at the bottom and discuss the question on the blue background.

- PowerPoint
- Videos linked on YouTube
- Persona Cards worksheet (and blu tac and larger persona cards if you don't have an interactive white board)

SECTION 2: CLIMATE CHANGING, LESSON 1



Lesson title: Climate Change is Now

Curriculum Area: English
Lesson number: 1 of 1

Lesson Objective(s)

Explore how climate change is affecting communities now, in this part of the world and globally, through research and presentation.

Curriculum Links

National Curriculum England: reading non-fiction; summarising and organising material, and supporting ideas and arguments with any necessary factual detail; speaking confidently and effectively.

Northern Ireland Curriculum: Find, select and use information from a range of sources; understand and explore ideas, events and features in texts; develop, express and present ideas in a variety of forms and formats.

Les	Lesson Outline:		
1	Starter activity 7 mins	5, 4, 3, 2, 1 activity. Students consider different levels of question based on a stimulus image of flooding.	
2	Group work (intro) 3 mins	Behind every news programme there is (click image to reveal) a team of researchers. Hand out worksheets and talk students through them.	
3	Group work (research) 10 mins	Students research news events and choose one story from the UK/Ireland and one international story to report on.	
4	Group work (scripts) 15 mins	Students use their research to script their role play, which they then rehearse.	

Group work (present)
20 mins

Students present their news programme role play.

6 Class discussion 5 mins

Discuss as a class. If students need a calming activity, write up in their books first.

- PowerPoint
- Challenge Information worksheet
- Either access to computers for each group or model stories (we've provided sample stories, but you may want to source ones which are more recent and/or more local to you).



SECTION 2: CLIMATE CHANGING, LESSON 2



Lesson title: Degrees of Concern

Curriculum Area: Geography

Lesson number: 1 of 1

Lesson Objective(s)

To examine evidence indicating when our understanding about climate change first developed, and think about what we did with that knowledge and why.

Curriculum Links

National Curriculum England: understand how human and physical processes interact to influence and change landscapes, environments and the climate.

Northern Ireland Curriculum: investigate the impact of conflict between social, economic and environmental needs, both locally and globally.

Lesson Outline:

1 Sta

Starter activity 7 mins

Students answer questions related to the statement 'knowledge is power'. Discuss their responses as a whole class.

Video discussion 8 mins

Watch the BBC video on degrees of temperature rise here (2.21 mins - students note down what they learn). Then use the 3 questions on slide 3. Feed back Q1 as a whole class. For the next 2 questions, discuss in pairs and then feed back. The last question leads onto the activity on slide 4.

Note: some of the content of this lesson may cause climate anxiety for some students. Familiarise yourself with the grounding activities sheet in our unit and use this with your class if you feel it's needed.

Paired sorting activity 15 mins

You may wish to create cards for this or students can just work from the board. Ensure students understand what some of these terms mean, e.g. the role of local councils, what the United Nations is.

Students first sort who they think is most responsible for keeping us below the 1.5 degree threshold, and then consider and order who will be most affected by climate change. (If your class has not done very much on climate change, such as Year 7s, you may want to give them examples to order, rather than the students coming up with examples themselves. We've provided some examples you could use in the notes for the PowerPoint slide.) They then compare their lists. If there's time, discuss with the class what ideas they had.



A letter from scientists 5 mins

Read the letter from world scientists to the class. On mini whiteboards, students write down when they think this letter was written. Then share – see who's nearest. Go to slide 7 to reveal the answer. (If you would like more information on this letter, click on the title link in the PowerPoint.) Briefly discuss the questions on the board as a whole class.



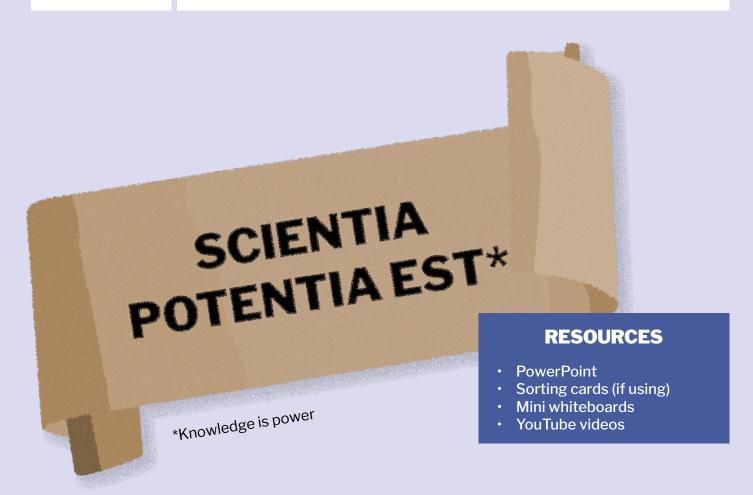
Video discussion 20 mins Watch video on oil companies and their knowledge about climate change here. The full video lasts for 15 minutes. If you are running short of time, you could stop the video at 6:55min - it's important that students see the positive outcome of action in the last few slides of the PowerPoint. Students think about the questions as they watch and then, using the next slide, discuss answers to the stimulus questions as a class.

Introduce the Friends of the Earth action to hold oil/gas companies to account (if you are ahead of time, a 2-minute video about the campaign can be found here). Then use the next slide to show the positive outcome this campaign had.



Plenary 5 mins

Students write their reflections to the questions on the board. If you have time, these can be discussed as a class.



SECTION 2: CLIMATE CHANGING, LESSON 3



Lesson title: Change Makers **Curriculum Area:** History **Lesson number:** 1 of 1

Lesson Objective(s)

- Learn about young people who have contributed significantly to society.
- Develop empathetic skills in identifying motivations of others.
- Consider the impact that individuals can have on history.

Curriculum Links

National Curriculum England: understand historical concepts, like continuity and change, cause and consequence, similarity, difference and significance. Use them to make connections, draw contrasts, analyse trends, frame historically valid questions and create structured accounts, including written narratives and analyses.

Northern Ireland Curriculum: Investigate critical issues in history or historical figures who have behaved ethically or unethically.

Lesson Outline:	
Starter activity 3 mins	Compare a historical and modern image showing activism.
Group work and discussion 20 mins	Group work: hand out case studies to students. Students answer the questions for each of the individual case studies. Differentiation option – weaker groups could focus on two or three case studies rather than all of them. Whole class discussion: students share their responses to the question. Draw out the similarities and differences between these individuals.
Written task 10 mins	How can individual action be significant in history? This task has been differentiated for different abilities.
4 Greta Thunberg 14 mins	Students think quietly for a moment about how they might answer this question: "What individuals today do you think may be remembered in history?" Introduce Greta Thunberg as a possible answer, giving the background on the slide as a reason. Then show the video here , asking the students to consider the questions while they watch. (11min 12)



Individual activity
10 mins

Imagine a case study individual was giving a TED talk (TED talk time travel). What might they say? What might their message be? This is a short activity, but if you want students to spend more time on it, it can be set as a homework. Students could also then opt to film their 'TED talk' on their smartphones, instead of handing in written copy. You may then want to extend the time available for the first written activity and/or discussion of other questions.



Plenary 3 mins

Students quietly reflect on the activity on the board. If there's time, they can discuss these questions in pairs.

- PowerPoint
- Group work pack consisting of Case Study sheets and a question sheet
- Greta Thunberg video

SECTION 2: CLIMATE CHANGING, LESSON 4



Lesson title: Understanding Our Values

Curriculum Area: PSHE **Lesson number:** 1 of 1

Lesson Objective(s)

Students identify some of their own values and consider how these might inform the decisions they make.

Curriculum Links

National Curriculum England: be reflective about their own experiences, values and beliefs that inform their perspective on life.

Northern Ireland Curriculum: explore personal morals, values and beliefs.

Lesson Outline:	
Starter activity 5 mins	Students answer question individually and then share some answers.
What does value mean? 3 mins	To draw out the meaning of the term value, students consider how the word value/valuable is used.
Where do you stand quiz 15 mins	Go through the questions. Students make a note of their letter choices. While they total their scores, hand out the results sheet. Students read the character summary and reflect on the values and characteristics identified. Ask them if they were predominantly one letter or a mixture of different ones. If so, which elements of the other results do they think matches their personality.
Values and lifestyle 17 mins	Spend a couple of minutes talking students through the next two slides (15 and 16, which explore the link between values and lifestyle) as an introduction to the activity on slide 17. Students draw an outline of themselves and plot their own interests, influences and actions outside the outline and their values inside. Students complete the task individually, then share their findings. What do people have in common? What common values do you share as a class?



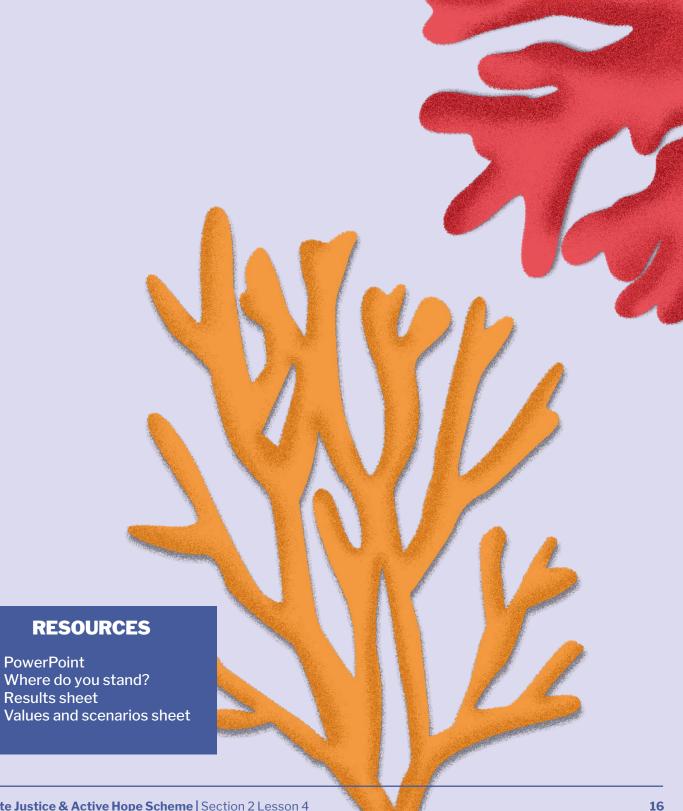
Values and scenarios activity 15 mins

Hand out Values and Scenarios Sheet. Read the scenarios to the class and students. Identify which values they hold that are affected by the scenarios. Stop after each one to get some feedback from the whole class. Students should then discuss their responses in small groups, along with the second question on slide 19 (click to make this appear). Would they care enough to take action and why?



Plenary 5 mins

Students reflect on key questions individually, then discuss in small groups, and then share as a class.



PowerPoint

Results sheet

SECTION 3: DIGGING DEEPER, LESSON 1



Lesson title: Interconnections **Curriculum Area:** Geography

Lesson number: 1 of 1

Lesson Objective(s)

To be able to recognise global connections through the stuff we consume; understand the problems of the linear economy; and analyse the impacts of this system on wellbeing.

Curriculum Links

National Curriculum England: to understand key processes in human geography relating to economic activity and the use of natural resources.

Northern Ireland Curriculum: Investigate the impact of conflict between social, economic and environmental needs, both locally and globally.

Lesson Outline:

Starter activity 3 mins

Students make a list of everything they've used since the start of the day.

The story of stuff 30 mins

In pairs, students select one item common to them both and write it in the middle of a large piece of sugar paper. They then map out what was involved in the production of that item. Generate thinking by clicking through the questions on slide 3, leaving 3-4 minutes between each question for them to write down their ideas. (To motivate a class who might need it, you could introduce a competitive element, with a prize for the pair that generates the most relevant ideas). Click through to the next slide and give students 5 more minutes to continue to add. Get them to think more deeply, e.g. the farmer may have needed training – did they go to agricultural college – what was needed for that? If the farmer got ill, they'd need a doctor and medicine.

Group discussion 5 mins

Introduce the linear economy idea and ensure understanding. Get groups to discuss what they think might be missing. Click to reveal clues when/if needed. Briefly discuss their ideas as a whole class.

4 Exploring economies 2 mins

Introduce key ideas about what a linear economy omits and the fact that some economists are exploring other models, which take into account the sorts of things the students have just been discussing. (The circular and doughnut economic models are very briefly outlined on the next slide. See our teacher reading list if you would like to know more about these models.)

Waste export questions 4 mins

Students answer questions on waste export. Judge your class's needs at this point – if they need a settling activity, then they could write their ideas in silence before feeding back to the whole class. Alternatively, discuss in pairs.

Group discussion 2 mins

Why do we use so much more stuff? Brief discussion in groups before watching the video which explores these ideas further.

7 The story of stuff video 8 mins

Watch from 12:35-16:45 of The Story of Stuff video (the whole 20-minute video, which you can find here, is a highly recommended resource for teachers delivering this lesson).

Click on the image for the link and scroll to the correct part of the video. Afterwards discuss the questions as a class.

What makes us happy?
3 mins

Students each explore ideas of what makes them happy and share one thing with a partner.

9 Consuming less
3 mins

How could producing and consuming less stuff make other people happier? Students list as many ways as they can think of in 1 minute, then share ideas



- PowerPoint
- Sugar paper
- Video link

SECTION 3: DIGGING DEEPER, LESSON 2



Lesson title: Our Earth, Our Future: To Mine or Mind

Curriculum Area: Drama **Lesson number:** 1 of 1

Lesson Objective(s)

To identify the qualities and motivations of a character.

Through role play, students will learn to empathise with other points of view and the value of drama to explore different perspectives.

Curriculum Links

National Curriculum England: students are competent in the arts of speaking, listening and participating in debate.

Northern Ireland Curriculum: Explore ethical issues through the medium of drama, by improvising a scene involving decision-making that requires weighing up and making difficult choices.

			ine:
 रचय	a 1 a 1	8 K W W	יםחו

Starter activity 3 mins

Recap or introduce the idea of character motivation - students consider question individually in silence and then feed back to whole group.

Video discussion

Watch the two videos of women who have been impacted by mining. After each video, briefly discuss the stimulus questions here (5:03 min).

here (3:27 min).

[Note – there's some violence in the first film that you may wish to check before sharing with students]

Paired role play
10 mins

The women from the 2 videos meet to discuss their experiences. Briefly ask the class what techniques they might use for communicating qualities and emotions. Choose one or two to present to the class.

4 Group role play 5 mins

Students work in groups of 7 on role play. Each student is given a different character sheet. Students are given time to read through their character sheet and consider the motivation and emotions for that character, before the role play takes place. You may wish to encourage them to make some notes on this.

Differentiation opportunity – rather than completing this task individually, students with the same character card could read the sheet together and discuss character emotions and motivations before going into main role play group (though this would allow less time for the role play).

Role play discussion 20 mins

Students role play the discussion (the mediator's role should give scaffolding for how the discussion should take place – circulate the room and support where necessary).

Reflection and plenary 10 mins

Reflection questions on the role of drama to explore social issues. Students discuss in their groups and then feed back to class.

- PowerPoint
- Video links
- Character sheets

SECTION 3: DIGGING DEEPER, LESSON 3



Lesson title: A Circular Economy **Curriculum Area:** Technology

Lesson number: 1 of 1

Lesson Objective(s)

Understand the difference in linear and circular economies and consider practical ways individuals, communities and product designers can meet the principles of a circular economy.

Curriculum Links

National Curriculum England: understand developments in design and technology, its impact on individuals, society and the environment, and the responsibilities of designers, engineers and technologists.

Northern Ireland Curriculum: pursue design solutions using environmentally friendly materials and energy sources. Identify product needs and pursue sustainable harmonious design solutions

Lesson Outline:	
Starter activity 3 mins	Students consider the problems with a linear (take, make, dispose) economy and share ideas. Note: Section 3 lesson 1 covers an explanation of this in more detail and you may want to view the film included in that in preparation for this lesson).
Paired and group discussion 5 mins	Briefly discuss the role of designers. Firstly in pairs, then feed back to class.
Video discussion 5 mins	Watch video on the Thornhill School zero-waste project here (3:22min) and share thoughts as a class on the questions.
Paired and group discussion 3 mins	Explore the role of a product designer in helping to reduce waste: 1-2 min paired discussion, then feed back main ideas to class. Ideas might include products made from mixed materials that can't be separated; thinking about the nature of the materials used and how easy they are to recycle; reducing the amount of packaging in products.
Video activity 10 mins	Students watch the repair video <u>here</u> (7:04min) and write down their answers, then share with class.

Lesson Outline: Group Briefly discuss ideas about how designers might improve the lifetime of their discussion products (this should feed in to the next main activity). 2 mins **Group work** Students may choose products, or you may prefer to give a specific 25 mins item directly relevant to the technology subject that you teach. Ensure students understand what each of the R's mean and that they take into account extractivism and waste products in the manufacturing system as a whole. You may want to set this as a competition, with marks given for the attractiveness of the product and marks for its sustainability. **Video** Watch video on Interface Carpets here. In 1994, they set themselves the target activity to become completely carbon neutral and they achieved this goal in 2019. 2 mins (Find out more about the company here) **Paired** Students discuss questions in groups or pairs before feeding back to class. and group If more questioning is needed to draw out answers, ask students: Why are discussion designers encouraged to use so much packaging and how might we stop it? 5 mins What might stop designers creating products that will last?

- PowerPoint
- Video links

SECTION 4: SWITCHING TRACK, LESSON 1



Lesson title: Renewable Energy **Curriculum Area:** Geography

Lesson number: 1 of 1

Lesson Objective(s)

To learn what renewable energy is and look at two case studies in order to develop an understanding of potential problems and some guiding principles.

Curriculum Links

National Curriculum England: Human geography relating to economic activity and the use of natural resources.

Northern Ireland Curriculum: Explore how we can exercise environmental stewardship and help promote a better quality of life for present and future generations, both locally and globally.

Lesson Outline:	
Starter activity 3 mins	Students list things they couldn't do if they didn't have electricity.
Video activity 3 mins	Watch UN video on clean energy <u>here</u> , bullet pointing or mind-mapping their response to the key question while they watch. (2:57min)
Video discussion 8 mins	Click through to slide 3 for reflection questions based on the video - students discuss these questions in pairs and then feed back to whole class.
Case Study 01 9 mins	Case Study 1: Read through the questions before watching the video on Berta Cáceres here (4:46min). Ensure understanding of keywords 'hydroelectric' and 'indigenous'. Students feed back their responses to the questions. Note: Cáceres was murdered after this video was made – more information
	is available in our further reading doc. This may be raised by students who have heard about it. If this and/or the murder mentioned in the video cause anxiety or overwhelming feelings for any students in your class, please refer to the grounding activities linked to this scheme of work.



Case Study 02 9 mins

First give students background – In 2017, the US government completed the building of an oil pipeline in Dakota. Protests against the pipeline had gone on for months over the environmental impacts of the fossil fuel pipeline and the fact that some of the land it ran through is sacred to the Native American people from those regions. During the protests, the Sioux tribal nations were supported by other indigenous people across the US, and environmentalists from all over the US and from around the world. This video tells a story of what happened afterwards at Standing Rock, watch it here (4min).

Students feed back their responses to the questions.



In groups, compare the two case studies and use this to discuss guiding principles that they believe should be used when developing new renewables projects.

7 Discussing guiding principles 8 mins

Students feed back their ideas based on previous activity, then go through the guiding principles that Friends of the Earth believe are a good foundation for renewable energy projects. Ensure understanding of these principles. In pairs, students discuss how the principles relate to the cases in Honduras and Standing Rock.

Reflection 10 mins

UK fuel poverty reflection: Allow students to discuss questions in their groups for a couple of minutes and then set the class the target of devising 5 to 10 (depending on the class) practical ways that renewable energy projects can be used to help communities in fuel poverty.



SECTION 4: SWITCHING TRACK, LESSON 2



Lesson title: Power in Your Hands

Curriculum Area: Science Lesson number: 1 of 1

Lesson Objective(s)

Students will understand some of the science behind renewable energies and the economic and social potential of community owned renewable energy.

Curriculum Links

National Curriculum England: Physics: Energy: fuels and energy resources

Northern Ireland Curriculum: Investigate a product of economic importance to determine the science behind it

Lesson Outline:

Starter activity 5 mins

Students individually note down ideas in silence and then briefly share with the class.

2 Video activity 5 mins

Students watch the video here on localised solar energy projects in Palestine and write down the ways in which these women's lives were changed by access to solar energy (2min15). then share some answers. Draw out the idea that having access to energy affects many of our basic human rights and because of this we can look on energy as a 'Commons', something that everyone should have access to no matter where they live or what their income is.

Video discussion 9 mins

Introduce students to the questions they are to consider whilst watching the video (ensure understanding of the word 'economic') here (6min36). Students briefly feedback their answers.

Design activity 25 mins

Design Your Own Solar Marshmallow Melter Activity: Students are given the objective and a list of equipment (you may choose to give them the actual equipment and create practically). In groups, they discuss possible design ideas.

Students either draw and label their design or create the item.

If completing as a practical task, it takes about 30 minutes to heat the solar oven to the correct temperature so, if you wanted to see if the item was effective, they would need to either try it out at home or have the "solar ovens" set up before the next lesson (the effectiveness would also be weather dependent).

Use the top tips slide at a point when you think students will benefit.



Reveal the solution 10 mins

Reveal the solution. Students compare this solution with their own design. What did they get right? What might they need to do to improve their design? Students individually write an evaluation of their design in their books according to the evaluation framework you normally use with them for experiments.

Paired and class discussion

6 mins

Students discuss in pairs then share ideas as a whole class. Note to teacher: You may want to develop this reflection activity into a further lesson which looks at designing sustainable solutions for your school. Inspiration can be found here:

- · Solar Schools in Ireland
- Run on Sun in England
- Film: The Boy Who Harnessed The Wind | Offical Trailer [HD] | Netflix



SECTION 4: SWITCHING TRACK, LESSON 3



Lesson title: Vision

Curriculum Area: Religious Studies

Lesson number: 1 of 2

Lesson Objective(s)

Learn About: the relationship between religious teachings and care for the earth and other people.

Learn From: To reflect on their own world views and vision for a better society

Curriculum Links

National Curriculum England: As per local curriculum following the principle of the key concept "Understanding how moral values and a sense of obligation can come from beliefs and experience. Evaluating their own and others' values in order to make informed, rational and imaginative choices".

Northern Ireland Curriculum: Explore why those with a religious faith believe they have responsibility, as stewards, to take care of the world and people within it. Explain how they might put these beliefs about stewardship into practice today.

Lesson Outline:	
Starter activity 5 mins	Students list 5 problems in the world and consider their causes then briefly feedback.
Drawing futures 6 mins	Distribute religious teaching cards so that, within a group of 6, each student has a different religion's teaching. Students read the quotations and imagine a world where everyone lived by these ideas. They then spend 5 minutes drawing an image of a future world based on these ideas.
Drawing futures 25 mins	After 5 minutes blow a whistle or use a timer with an auditory signal. Students then pass their card to the person on their left and their image to their right. They read the new card and spend 5 minutes adding to the new image based on the ideas on the new card. Repeat this until students have explored the 6 different religions and added to six different images.
Drawing futures 5 mins	Students then have a further 5 minutes to add their own vision of a better future with their own personal hopes for a better world.



Students share their images in groups and reflect on them using the questions on the slide. One person in the group should be nominated as spokesperson to feedback. Other people in the group share the responsibility to scribe the group's answer to these questions.



Plenary – Spokesperson from each group feeds back answers. If you have time left over after the feedback, you could discuss these issues further as a whole class or ask individuals to complete a written plenary reflection in their book – Write down two interesting things that you have learnt this lesson.



- PowerPoint
- Plain paper and drawing materials
- Religious Goals cards

SECTION 4: SWITCHING TRACK, LESSON 4



Lesson title: Solutions

Curriculum Area: Religious Studies

Lesson number: 2 of 2

Lesson Objective(s)

Learn About: the relationship between religious teachings and care for the earth and other people.

Learn From: To reflect on their own world views and how holding value can inform decision making and problem solving.

Curriculum Links

National Curriculum England: As per local curriculum following the principle of the key concept "Understanding how moral values and a sense of obligation can come from beliefs and experience. Evaluating their own and others' values in order to make informed, rational and imaginative choices".

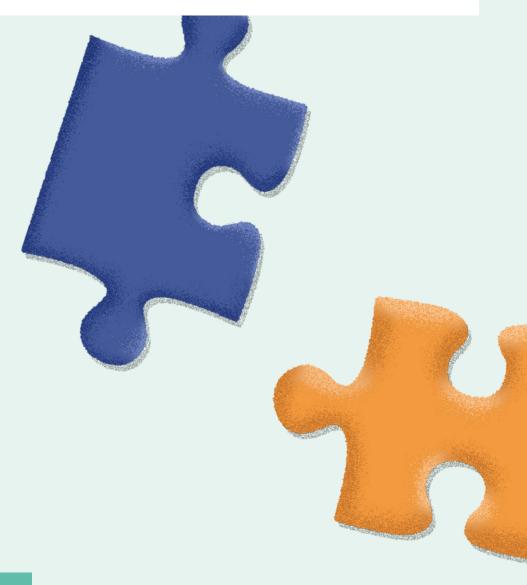
Northern Ireland Curriculum: Explore why those with a religious faith believe they have responsibility, as stewards, to take care of the world and people within it. Explain how they might put these beliefs about stewardship into practice today.

Lesson Outl	Lesson Outline:		
Starter activity 8 mins	marriadam,, etademie mite de mie 20 amilio angrede propre migri		
Video discuss 6 mins	Introduce questions, watch the Story of Solutions video <u>here</u> , and then discuss the questions in pairs then as a class (9:06 min).		
Find a Game Changi Solutio 5 mins			
4 Group 10 mins			

Group work (present) 15 mins Students give their presentations.

6 Plenary 7 mins

Student reflect on the questions on the final slide. Either ask the students to write their reflections individually in silence; discuss in groups; or discuss as a class (use your judgement according to the mood/dynamics of the class at this point).



- PowerPoint
- Video link
- Find a Game Changing Solution worksheet
- Plain paper and drawing materials etc. to create visual prompts for presentations



SECTION 5: BE THE CHANGE, LESSON 1



Lesson title: How Does Change Happen?

Curriculum Area: PSHE **Lesson number:** 1 of 3

Lesson Objective(s)

Students to recognise who holds the power in decision-making, while also recognising the power that they have, and their ability to influence others and be catalysts for change (this idea is built upon in the next lesson).

Curriculum Links

National Curriculum England (Citizenship): Pupils should be taught about the roles played by public institutions and voluntary groups in society, and the ways in which citizens work together to improve their communities.

Northern Ireland Curriculum: investigate various ways to participate in society.

Lesson Outline: Starter Students complete in silence, then (time dependent) ask for responses from activity students. 3 mins **Spectrum** Note: For this activity students will need to move about so you may wish activity to move furniture. Though this active activity is really valuable, if moving 20 mins around will be difficult for your class, then numbered cards could be used instead. Read the statements out in turn and students decide whether they agree or disagree and move to the side of the room which represents their view. Get the students to make their decision and find their position fairly quickly. then pop up the question 'What's your reason?' Ask students to answer this question. This may lead to debate on some of the questions. Another interesting possibility is to ask someone why they think other people are standing on the opposite side of the room. Video Students watch 'Story of Change' video here and think about the different activity elements needed to make change possible. (6:28). 7 mins A fairer In silence, students write down 5 changes that would make the world fairer world for everyone and more sustainable. Next, students write on post-it notes 5 mins how people who share these ideas could work together to raise awareness and/or make changes? (These post-it notes will be used later.)



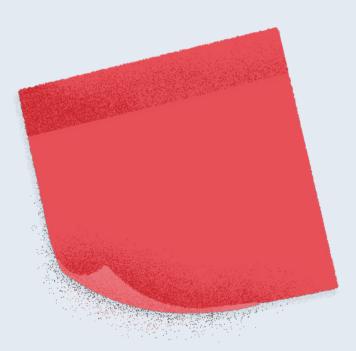
Group work 15 mins Hand out large sugar paper for students to use for the table. Ensure students understand how the table works, e.g. simple + high impact would be something that's easy to do and would make a massive difference. Students then go through their post-it note ideas and decide where they should go on the table.



Students look through the activities on their table and decide which actions would be the best for people to take and why. If you feel your students need a settling activity, then this could be done as an individual written task. Alternatively, they could discuss this in their small groups. Students then feed back to the whole class.

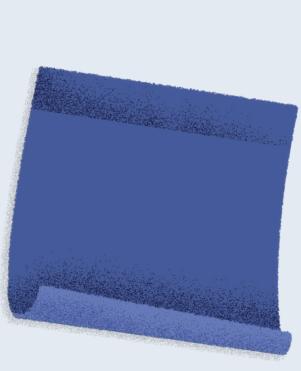


Students complete the reflection questions in silence.





- PowerPoint
- Numbered cards for spectrum activity (if using)
- Video link
- Post-it notes
- Sugar paper



SECTION 5: BE THE CHANGE, LESSON 2



Lesson title: Who Makes Change Happen?

Curriculum Area: PSHE **Lesson number:** 2 of 3

Lesson Objective(s)

Students to recognise who holds the power in decision-making, while also recognising the power that they have and their ability to influence others and be catalysts for change (building upon the previous lesson).

Curriculum Links

National Curriculum England: the roles played by public institutions and voluntary groups in society, and the ways in which citizens work together to improve their communities.

Northern Ireland Curriculum: investigate various ways to participate in society.

Lesson Outline:	
Starter activity 3 mins	Individual activity in silence, students reflect upon influential people in their own lives (thinking from this activity will feed into the next).
Paired work 7 mins	Students create a person outline in their book/on a sheet of A4 and write inside it the qualities of good changemakers. You can click to pop up examples to help them think about what they might put inside. Students then feed back to the whole class and add these ideas to their image.
Wangari Maathai 5 mins	Read the story of Wangari Maathai to the class. Students then feed back changemaker qualities they think she has, giving evidence why.
Wangari Maathai 5 mins	Watch the Wangari Maathai video of the hummingbird story here (2min). Students are to consider the key question as they watch and then feed back their answers.
5 Local change makers 2 mins	Students are now introduced to a more local changemaker story. If your school is completing all the lessons in our scheme, then this case study ties in with the drama lesson (where the students role-play the issues surrounding this case). The next few slides should act as a reminder for this lesson but, in conjunction with the case study sheet, will also provide the necessary information if students have not been able to take part in that lesson.

6 Case study worksheet 8 mins

Hand out the case study worksheet. Read through the information as a class, then in groups or pairs students respond to the questions.

Group work 17-20 mins

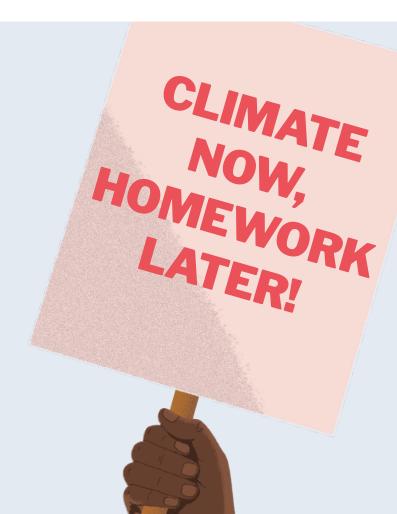
Group Work using 'What makes a good message?' activity sheet and an A3 print-out of this slide (so students can see the messages more clearly). There are two options for completing this, depending on your students' needs. One is for them to work independently through all the activities on the sheet and present at the end. The other is for you to stop them after each of the activities and share their responses. Be sure to keep them to time on this, e.g. remind them how many minutes are left.

Group work (present)
10 mins

Students present their YouTube-style 'how-to' presentations (tell them to listen carefully as they will be using these top tips next lesson).

9 Optional plenary 3 mins

Optional plenary (dependent upon how much time is spent on presentations).



- PowerPoint
- Wangari Maathai sheet (teacher copy to be read to the class)
- · Hummingbird video
- Case Study worksheet
- What makes a good message? Activity sheet
- Group print-out of placard images

SECTION 5: BE THE CHANGE, LESSON 3



Lesson title: Hope and Action

Curriculum Area: PSHE **Lesson number:** 3 of 3

Lesson Objective(s)

For students to see how positive action can be taken to bring about change and to consider what such action might look like.

Curriculum Links

National Curriculum England: the roles played by public institutions and voluntary groups in society, and the ways in which citizens work together to improve their communities.

Northern Ireland Curriculum: investigate various ways to participate in society.

Lesson Outline:	
Starter activity 5 mins	Students reflect on their feelings about the 2 quotations on the screen as they arrive in the lesson and then briefly discuss as a class (don't forget to make use of grounding activities from the preparatory lessons if necessary).
2 Individual reflection 2 mins	Individual reflection on responses to hearing about climate change and injustice.
Paired discussion 5 mins	Paired discussion (2min) then feedback (3 min) on feelings of powerlessness connected to climate change and injustice.
Paired work 8 mins	In pairs, think of 5 things you would see and 5 things you wouldn't see in the 'Best Case Scenario' for the planet, then feed back to class. Ask the students to reflect for a moment on what it would be like to live in the best-case scenario. Then click to introduce an arrow pointing towards best case, together with the idea that we're not doomed to the worst-case scenario, as long as the right changes take place.
Learning recap 2 mins	Recap learning from last two lessons (click to remove question marks for big idea, working together and action. The hummingbird slogan was 'I will do the best I can' we can stand around in despair or do whatever we can to bring change).
6 Learning recap 2 mins	Use the next 3 slides to remind the students of prior learning, with opportunity to reflect on this. In groups, agree on something related to climate change and/or climate justice to design a campaign around.



Design activities25 mins

The students have 2 tasks to complete – to design a placard and to design an action. If your students work well independently, introduce both tasks together and allow them to divide the tasks between themselves and the time available.

Alternatively split this into 2 activities.

Whichever way you're working, be strict on time and keep reminding them of how many minutes they have left. The action they are designing should be possible, be designed to have an impact and be something they would be happy to do – in other words, something realistic. Hand out the 'Design Your Action' planning sheet to help each group to plan. Some students may want to take their action once they've designed it. It would be excellent if this could be supported either by encouragement or by organising lunchtime sessions for students to meet and develop their ideas into a reality. If they want to take their action forward and it's public facing, then ensure any safeguarding issues are met (for example, by getting them to build into their plan for parent/guardians to accompany them or to explore the possibility of the action taking place on school premises at break or lunchtime, with staff volunteers to oversee it).



What might you say to someone who said that there was no point doing anything about climate change because nobody will listen? Students consider in silence then discuss together (if you have overrun on other activities go straight to next slide).



Read the quotation on Active Hope, then students reflect individually on the questions about it. Then discuss in pairs, then small group, then feed back to whole class.

RESOURCES

- PowerPoint
- Materials to create placards (this may just be the inside of a cereal packet and some marker pens)
- Design your action worksheet
- Paper to record ideas for campaign design.



BEST CASE

