SCHOOL CITIZENS ASSEMBLIES EXTENDED ACTIVITY HANDBOOK

SCA OBJECTIVES

SCAs seek to assemble pupils, schools, experts and stakeholders to tackle complex problems and create innovative solutions by:

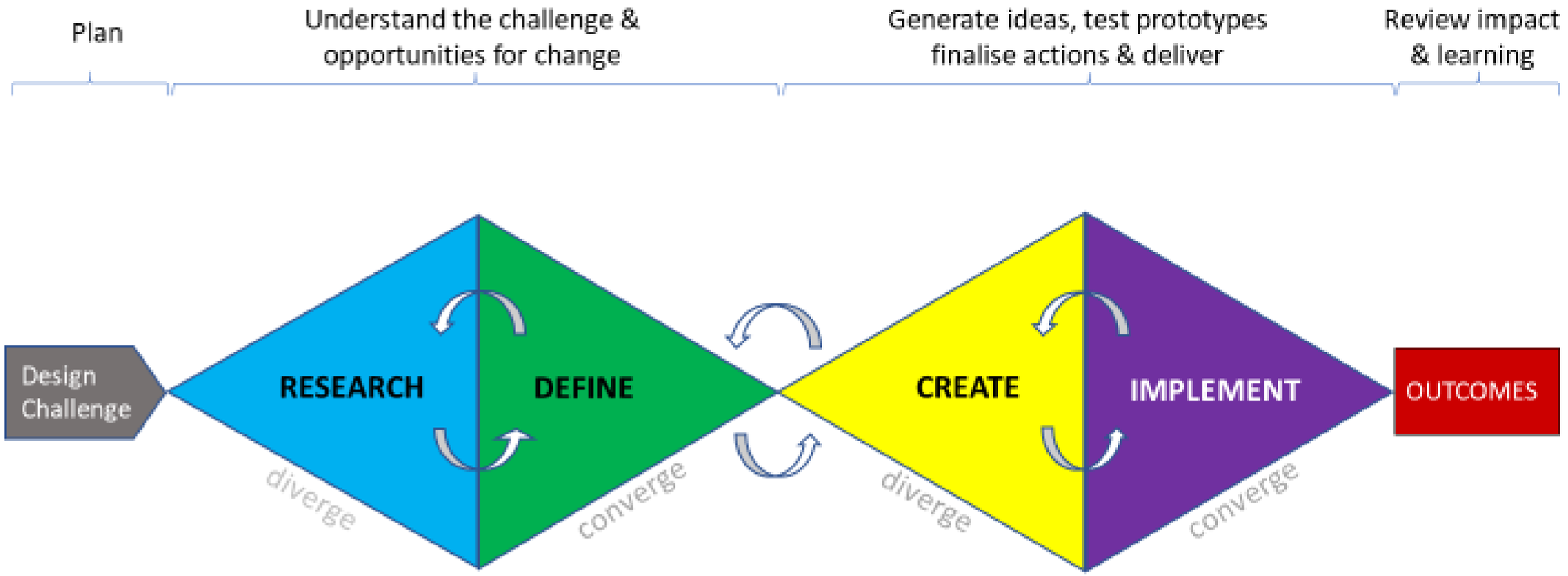
- Developing a greater knowledge and understanding of the challenge.
- Empathising with different stakeholders & highlighting different problems.
- Analysing and prioritising problems & refining the challenge focus.
- Creating and implementing new ideas & evaluating outcomes.

Extended Activity Handbook

This guide provides an example of implementing SCAs using a full range of extended activities connected to the process and examples are provided based on the challenge of Climate Change and Biodiversity. While this guide takes you through the example, you can select any challenge for your SCA. You can also decide how to split the activities, how long to take on each stage and how to link the SCA to your curriculum.

Also see the **Generic SCA Skills Guide (GS)** and an **Empathy Interviews Guide** for additional information relating to the SCA process.

SCA CHALLENGE PROCESS



RESEARCH & EMPATHY

Research and Empathy: Core Activities

Examine Global Challenge (Optional)

Examine Local Challenge

Facts, Assumptions, Questions

Understanding Stakeholders

Analysing Data

RESEARCH AND EMPATHY ACTIVITIES

CORE ACTIVITIES

A1: Understand the Wider Challenge (optional)
A2: Define Local Challenge/Problems
A3: Facts, Assumptions, Questions
A4: Understanding Stakeholders
A5: Analyse Data: Point of View Analysis

EXTENDED ACTIVITIES

A1: Climate Fresk Cards (climate change)
A4.1: Stakeholder Facts & Questions
A4.2: Empathy Interviews (separate guide)
A4.3: Challenge Observation
A5.1: Point of View Analysis (Individual)

You will find some of the additional activities in the Appendix

The **Research** section takes you through a range of core activities and examples (linked to climate change). You can also use the **Generic Skills (GS) Guide and Extended Activities Guide** for more information about activities.

CHALLENGE FOCUS: GLOBAL OR LOCAL

When planning your SCA, you may decide to move directly onto **Activity 2** and focus on a **Local** (or more specific) **Challenge**.

Alternatively, if you wish to examine a **wider issue and challenge area** (such as global climate change or plastics/recycling), then begin with **Activity 1.** This can help to provide a background to the issues and increase pupil engagement (e.g. by highlighting the impact of climate change on animals or people, regions, rivers and oceans, extreme weather, etc.)

Global Challenges (Impact of Climate Change on African Animals) may differ to a **Local Challenge** (Reducing Carbon Emissions in School), even though they will be connected (local challenge helps global issue)

A1: SELECT & EXAMINE A WIDER CHALLENGE

What is the wider/global challenge you wish to examine in more detail? What are the problems?

- How can you learn more about and make sense of the challenge area from different sources (curriculum, experts, stakeholders, further research, fiction & non-fiction, videos, performances, art, poetry)?
- How can people see the challenge area in different ways and view the problems differently?
- What do the experts say? Watch a video, invite in an expert speaker, read more about the challenge area, play the Climate Fresk game (see Appendix)
- How can you connect the wider challenge to your curriculum.

GLOBAL CHALLENGES & CURRICULUM

There are many ways to connect different global challenges to the curriculum.

- **Reading, Writing, Oracy & Listening**: fiction (poetry, stories), non-fiction, videos, talks, group discussions of facts, assumptions and questions.
- **Science & Physical/Regional Geography** (e.g. climate change - water cycle, rivers, seas and oceans, people and place, etc.)
- **Maths**: gathering, assembling and analysing data.
- **Art, Music, Dance**: watching or performing, drawing and visualising.
- **History**: examining the historical context, changes and sources.
- **Citizenship & Personal Development**: agency, empathy, community.

CLIMATE CHALLENGE EXAMPLE: GLOBAL ISSUES

Global challenges: Climate change, biodiversity & sustainability

Threatened Animals & Regions - Artic/Antarctic/Oceans (Polar Bears, Turtles, Penguins); Asia (Sunda Tigers, Orangutans, Elephants, Snow Leopard, Pangolin), South America (River Dolphins, Jaguars, Spider Monkey; Giant Otters, Tapirs), North America (Red Wolf, Condor, Pygmy Raccoon, some bees); Europe (Brown Bear, Lynx, Bison, Vole, Right Whale, Bees), Africa (Gorilla, White Rhino, Forest Elephant, Wild Dog).

Changing Climate & Extreme Weather (Regions): Wild Fires, Heatwaves, Flooding; Droughts, Sea Warming, Less Food Production, Loss of homes)

Reducing Greenhouse Gases (Carbon, Methane); Pollution & Habitat Loss

ACTIVITY A1: EXAMINE WIDER CHALLENGE

Everyone writes down (individually) what they know about the challenge area on separate pieces of paper (or post-its). One paper for each fact, problem, or issue.

Optional Activities Below (select one, two, three or all four).

1. Discuss the challenge area in groups (Generic Skills Guide 2). Who are the key stakeholders? Write the any new stakeholders or issues you have discussed.
2. In your teams, group the main problems and issues into clusters and label the themes. (GS 3)
3. Decide what is a fact and an assumption. The FAQ table can help. Do you have any further questions about the challenge? (GS 7)
4. Mind maps can help to visualise and understand how problems connect. (GS 6)
5. What do you need to know more about the challenge area? Think about how you may find answers to any these questions you have about the challenge. (GS 4)

EXAMPLE 1: GLOBAL ISSUES

CHALLENGE: Climate Change, Africa & Forest Elephants

The greenhouse gas effect (GHG) creates global warming

Carbon dioxide (CO2) is released when fossil fuels are burnt

There are only 5-10% of the original forest elephant population left

GHG effect is when gases in the earths atmosphere trap the suns heat.

Forest Elephants are critically endangered

Agriculture & human infrastructure is causing habitat loss

Agriculture and human infrastructure causes deforestation

Carbon emissions are the biggest environmental problem globally

A major threat to forest elephants is poaching for ivory

The population of forest elephants has declined by 65% (since 2002).

Rainforest is cut down to grow food and farm livestock

Biodiversity is reducing in Africa

Climate change is causing environmental degredation and impacting human health

Habitat loss is reducing the forest elephant population

Families

Planet

Elephants

Tourism Companies

Africa

Farmers

Forests

FAQ EXAMPLE 1

CHALLENGE: Climate change, Africa, and Forest Elephants

FACTS

Biodiversity is reducing in Africa

There are only 5-10% of the original forest elephant population left

The population of forest elephants has declined by 65% (since 2002).

Forest Elephants are critically endangered

Agriculture & human infrastructure is causing habitat loss

A major threat to forest elephants is poaching for ivory

ASSUMPTIONS

Habitat loss is reducing the forest elephant population

Agriculture and human infrastructure causes deforestation

Climate Change is creating habitat loss in Africa

Rainforest is cut down to grow food and farm livestock

Forest elephants affect carbon stocks

QUESTIONS

Who and what is creating deforestation and habitat loss?

What is the main agricultural practice that impacts on deforestation?

How does the decline of forest elephants impact on climate change?

How can forest elephants be protected?

How does climate change impact on African Forest Elephants?

See Generic Skills Guide (GS 2) for more information on the FAQ Activity

FAQ EXAMPLE 2

CHALLENGE: Climate change, Europe, and Heatwaves

FACTS

Climate change is causing heatwaves in Europe

Heatwaves can impact on food production & Human health

Heatwaves can damage infrastructure & reduce access to water

The number of heatwaves in Europe has increased

In 2022, over 60,000 people died in Europe as a result of extreme heatwaves

In, 2022, over 90,000ha was burnt in wildfires caused by heatwaves (Europe)

ASSUMPTIONS

Carbon emissions need to be halved by 2030

Heatwaves increase hospital admissions

Heatwaves cause wildfires

If climate change continues, heatwaves will become more frequent and extreme

Countries in Europe do not have the infrastructure to cope with heatwaves

QUESTIONS

How much do need need to reduce carbon emissions by 2030?

Who is most affected by heatwaves?

How can we reduce carbon emissions & extreme weather conditions?

How can countries in Europe adapt to cope with heatwaves?

How can heatwaves be prevented?

Where do heatwaves occur?

A2: EXAMINE LOCAL CHALLENGE

What local or specific challenge will you be seeking to tackle? What are the problems? Who are the key stakeholders?

What can you learn about the challenge area from different sources (curriculum, experts, stakeholders, further research)? How can you write this as a problem? How can people see the challenge area in different ways and view problems differently? Can you write down how different stakeholders may view the challenge, problems and solutions differently?

Find out more about the challenge area from experts and stakeholders? Watch a video, invite an expert speaker or a local stakeholder to talk about this issue, read about the challenge area (connecting to your curriculum)?

CLIMATE CHALLENGE IDEAS: LOCAL

Different ways to tackle climate change and biodiversity locally includes:

- **Reduce carbon connected to transport and/or energy use (home, school, business, etc.) -** insulation, showers, thermostat, turning things off....
- **Lower greenhouse gases (carbon and methane) connected to agriculture and meat production** - eating less meat, plant-based recipes...
- **Increase recycling (home, school, business) & reduce food & general waste/litter**- composting, recycling bins, school hubs, litter pickups....
- **Reduce consumption (fast fashion, technology, single use plastics, etc.)**
- **Support eco-friendly and sustainable buildings, holidays and travel.**
- **Plant trees & hedgerows; protect wildlife & increase biodiversity.**
- **Shop local to reduce airmiles for products.**

ACTIVITY A2: EXAMINE LOCAL CHALLENGE

1. Write down the key things you know about the challenge area on separate pieces of paper. What are the problems; who are the key stakeholders connected to the challenge; do certain problems connect to certain stakeholders; are there any current solutions?
2. Share your papers with the group (GS 2). Assemble them into clusters and label the themes. You can also explore how stakeholders may link to certain problems (GS3).

Teachers - Within the groups you may wish to highlight how different stakeholders can view problems differently or may have other experiences or perspectives connected to the challenge area. The 'Teacher in Role' (GS 8) approach (as a stakeholder) can bring the issues to life as you engage with the pupils about these different stakeholder perspectives, and help them to develop greater empathy and understanding.

ACTIVITY A2.1: ENGAGING WITH EXPERTS

There are many different ways to engage with experts and subject knowledge.

1. Connect the local challenge to the school curriculum.
2. Watch videos and/or read more about the issues (fiction & non-fiction).
3. Ask the pupils to research specific issues in more detail.
4. Invite an expert speaker (in person or online) or organise a visit.
5. Organise an event (information finding session) or activities in school with a group of experts (e.g. carousel with tables where pupils can talk to experts in their groups; an ‘how to’ session).
6. Invite in local people in the community with expert knowledge into the school, organise a visit or join local projects connected to your challenge area.

INITIAL THOUGHTS EXAMPLE

CHALLENGE: Reducing carbon emission in the home & school

The greenhouse gas effect (GHG) creates global warming

Implementing renewable energy can be expensive

Carbon dioxide (CO2) is released when fossil fuels are burnt

Household appliances create CO2 - cookers, washing machines, dishwashers, dryers.

Senior school staff

Pupils

Planet

Teachers

GHG effect is when gases in the earths atmosphere trap the suns heat.

Carbon emissions are the biggest environmental problem in the UK

Heating homes & schools creates high amounts of CO2

Small thermostat reductions can help to lower CO2 levels

Electricity is a major source of GHGs & climate change

School

Home Owners

Cost of renewable energy vs fossil fuels

Renewable energy helps to reduce carbon emissions

Lighting, heating, food preparation, electrical appliances create CO2

Long showers use more energy & water

Heat pumps & Solar Panels can help to reduce CO2

Energy providers

Parents

Climate change is causing environmental degredation and impacting human health

Turn off lights & electrical appliances when not in use

Good insulation can reduce energy usage

Heating is a major source of carbon emissions

DfE

Support Staff

ACTIVITY A3: FACTS, ASSUMPTIONS & QUESTIONS

WHAT DO WE KNOW ABOUT THE PROBLEM AND STAKEHOLDERS. WHAT DO WE NEED TO KNOW MORE ABOUT THEM?

1. Based on the information gathered in Activity 2, work in groups and discuss in more detail what you know about challenge. Next, divide your post its/papers between what you definitely know (facts), and what you are not sure about (assumptions). (GS 7)
2. The table and headings can help to divide the papers and help you understand what you know and what you are unsure about. You can also do this with the whole class and complete a joint FAQ table, based on a class discussion (See Example).
3. Discuss and write down what you need to know more about the challenge area, in the form of questions (what possible questions do you need to find answers to through more research?). This can be done in groups or as a whole class. You can also extend this activity by going into more detail about the stakeholder issues and questions.

FAQ EXAMPLE 1

CHALLENGE: Reducing carbon emissions in the home/school

FACTS

Too much gas & electricity is being consumed in homes & schools

Using renewable energy can reduce carbon emissions by 2.5 tons annually

Fossil Fuels produce carbon and greenhouse gases

Houses create 17-21% of global carbon emissions

Turning off appliances when they are not being used reduces the amount of electricity used

Renewable energy creates less carbon emissions than fossil fuels

Heating is one of the main sources of carbon emissions in the home

ASSUMPTIONS

Electricity is the biggest source of carbon emissions in the UK

Using electricity to power appliances at the certain times can reduce your carbon footprint

We need to switch from fossil fuels to renewable energy to reduce carbon emissions

UK schools emit high levels of CO2

Turning off the heating and wearing more layers uses less electricity

QUESTIONS

How can people switch from fossil fuel to renewable energy?

How much carbon emissions does an average house or school produce in the UK?

When is the best time is to use electrical and gas appliances?

How much carbon does our school produce & where?

How can we reduce carbon usage in our school?

How much energy is consumed by leaving on electrical equipment on in the home, when not in use?

FAQ EXAMPLE 2

CHALLENGE: Reduce waste and increase recycling in school

FACTS

Half of waste created by schools is food waste

The school could save money by reducing waste

School food waste costs the education sector £250 million every year

Recycling reduces the amount of waste sent to landfill

Only 20% of recyclable waste is recycled in schools

ASSUMPTIONS

Reducing and recycling waste in school is better for the environment

Recycling saves energy and reduces pollution

There are three recycling bins: paper and card, plastic, and glass

Single use plastic is the most environmentally harmful waste

More recycling bins can reduce waste going into landfil and polluting the environment

QUESTIONS

How can food waste be reduced in school?

How can we encourage staff to recycle more in school?

How much waste does my school create? Where does it go?

What can be recycled and how?

How can we measure plastic usage?

How can we encourage pupils to recycle more?

How much single use plastic do we use?

COMBINING ACTIVITIES A2 & A3

IF TIME IS SHORT, YOU MAY WISH TO COMBINE ACTIVITY 2 AND 3.

1. Write down the things you know about the challenge area (different pieces of paper).
2. In groups, share and discuss the papers and divide them between what you definitely know (facts) and what you are not sure about (assumptions). You can also use the FAQ table (GS 7). This can help to understand what you know, what you are unsure about, and what you need to understand and research more.
3. Select the papers that focus on the key problems connected to the challenge and write down any new problems that may have emerged. Cluster these into themes and take a picture (GS 3).
4. Write down any questions connected to the challenge (what do you need to understand in more detail?). You can decide how to research the questions and select any potential questions you may wish to ask experts and/or stakeholders.

ACTIVITY A4: UNDERSTANDING KEY STAKEHOLDERS

You can find out more about the key stakeholders and their issues through a variety of sources:

Student Desk Research: documentary evidence (books, internet sites, articles, reports, studies) and videos **(Core)**

Expert/Stakeholder Talks: on your specific challenge area (**Extended).**

Teacher in Role (as stakeholders) can also be used to highlight different stakeholder views (GS 8). Students can also take on different roles to highlight diverse stakeholder perspectives. **(Extended)**

Write down the key points, issues and problems you discover through his research.

Extended Activities: Stakeholder Empathy

Below are a set of additional activities you may wish to consider when gathering data about stakeholders:

A4.1: FAQ Stakeholder Analysis - this activity helps to assess what you know, what you need to know and how to develop stakeholder questions.

A4.2: Empathy Interviews - can provide a deeper understanding and empathy of different stakeholder views, behaviours and experiences.

A4.3: Challenge Observation - can extended these insights further through observing everyday practice.

ACTIVITY 4.2
EMPATHY INTERVIEWS

See separate **Empathy Interview Guide** for more information

ACTIVITY 4.3: CHALLENGE OBSERVATION

Directly observe stakeholders to understand the context and their behaviour. Empathise with the feelings and emotions they are experiencing in the situation.

Activity

WHAT?

Describe what the stakeholder is doing in the situation. Write down the facts using what you can see.

HOW?

How is the stakeholder doing something? What behaviours and emotions can you see?

WHY?

Use what you have observed to make a reasoned assumption of why the stakeholder is doing something in a particular way. Gain an experts view through desk top research or asking an expert.

ACTIVITY A5: DATA ANALYSIS & POV

After collecting data about the challenge, stakeholders and problems, you will need to assemble and analyse the information you have gathered.

Data Analysis Activity (Core)
Use **Capture, Group & Label** to assemble issues, problems, goals and wishes you have discovered through your research **(GS 3).**

Stakeholder Point of View Analysis (Extended)
Enter this information into a **Stakeholder POV Table.**
Mind-maps can also provide a way to assemble and collate problems and highlight connections.

STAKEHOLDER POINT OF VIEW - EXAMPLE

Challenge: Increase Biodiversity & Garden Birds

STAKEHOLDER	Problems & Concerns	Goals and Wishes	INSIGHTS
Small Birds	• Access to food & water • Competing with larger birds	Easy access to good food/water through the year. Avoid fighting with larger birds	Provide bird/water feeders that suit small birds through the year & stop larger birds eating all the food
Large Birds	• Food during colder months • Access & food in birdfeeders	Access to food and water during the colder months Food that suits larger breeds	Enable access to appropriate food and water during the colder months
Family - Home	• Reduced biodiversity & birdlife • Climate change	Attract a wide range of birds into the garden and increase biodiversity	Provide suitable food and access to water during the year
Planet	• Global Climate changes • Impact of biodiversity reductions on the planet & the importance of birdlife	Humans working with animals and the planet to reduce climate change and improve biodiversity	Take biodiversity and climate action to support the increase in birdlife

Extended Activities: Data Analysis & POV

Point of View (POV) Analysis can provide a way to assemble and analyse stakeholder data from desk research, empathy interviews and/or observation.

- **Stakeholder Group POV** analysis allows you to assemble a broad range of perspectives from a several stakeholders within a specific group (e.g. small birds).
- **Individual POV** analysis is conducted for individual stakeholders and provides a deeper form of analysis for each individual stakeholder.

GROUP POV STATEMENTS - EXAMPLE 1

CHALLENGE: Reducing energy consumption in the home

STAKEHOLDER GROUP: Family households

PROBLEMS AND CONCERNS:

- High cost of cooking & heating (gas heating and cooker) and lack of effective insulation.
- Replacing appliances with new energy efficient ones is expensive.
- Washing machine, dishwasher & dryer often used and run during everyday and at the same time.
- The family has a second freezer, but it is often not filled with much and only used for special occasions when they are cooking for a lot of people.

GOALS AND WISHES:

- Cheaper renewable energy options.
- Lower cost of energy and carbon and emissions.
- Learn more about insulation.

MAIN INSIGHTS:

- Home owners often view sustainable energy as expensive.
- More education is required about reducing their use of energy In cost effective ways.

See Generic Skills Guide for more information on the POV activity

GROUP POV STATEMENTS EXAMPLE 2

CHALLENGE: Increase recycling and reducing waste in the school

STAKEHOLDER GROUP: Students (various conversations with other students)

PROBLEMS AND CONCERNS:

- Unsure what can be recycled and how.
- How can different waste can be reduced and recycled?
- How can we encourage everyone to recycle more and reduce waste. Too much single use plastics in the school, limited recycling in general and no recycling of soft plastics.

GOALS AND WISHES:

- More recycling bins in school with more information on what can be recycled.
- More information on how to reduce and recycle different types of waste.
- Incentives to increase recycling and reduce waste.

MAIN INSIGHTS:

- Students need more information and incentives about recycling different waste.
- The school needs to develop different ways to reduce single use plastics and more opportunities to recycle soft plastics.

5.1 INDIVIDUAL POV ANALYSIS EXAMPLE 1

CHALLENGE: Carbon emissions

STAKEHOLDER: Sharon & three kids (14, 11 & 6)

PROBLEMS AND CONCERNS:

High energy costs; low time and income; limited knowledge on reducing carbon emissions; help planet.

GOALS AND WISHES:

Reduce energy costs & carbon emissions in a fairly simple and low cost way that are easy to maintain over time & good for the planet

MAIN INSIGHTS:

Limited money & time. Busy working and looking after the family. Sharon and children would like to help to make a difference to climate change and the planet. Actions and changes need to be low cost, time and complexity to ensure they can afford and maintain them.

INDIVIDUAL POV ANALYSIS EXAMPLE 2

CHALLENGE: Carbon emissions

WHO: Sharon & family (three kids [14, 11 & 6])

NEEDS A WAY TO...

reduce energy usage & carbon emissions in their home cheaply & in a fairly simple and cost effective way and through a low time investment.

BECAUSE...

they wish to help the planet and reduce climate change but they cannot afford high value items or costly changes around the home (no EV; heat pump, new expensive devices or artefacts for insulation, heating, cooking, etc.). They would also like ideas that are not too complex to make and they need help, information and advice to support change. The changes need to be easy to introduce and maintain.

B: PROBLEM DEFINITION

OBJECTIVES

Prioritise problems & refine challenge focus

PROBLEM DEFINITION ACTIVITIES

CORE ACTIVITIES

B1: Data Analysis and Prioritising Problems

EXTENDED ACTIVITIES

Further Data Analysis and Prioritising Problems Activities - Conduct further research identified as missing, during problem definition stage

The **Problem Definition** section will take you through some activities and examples (linked to climate change). You can also use the **Generic Skills (GS) Guide** for more information about key activities.

B1: DATA ANALYSIS ACTIVITIES: PRIORITISING PROBLEMS

The research/empathy process provides many insights connected to the challenge area. You now need to decide where to focus your attention and how to prioritise certain problems.

Check the problems connected to the challenge that you have written down during the previous activities (on pieces of paper/post-its). You can add more at this stage if you have thought of any new ones.
To keep it simple you can just use a priority line to decide which problems are important and easier to resolve (compared to those that are difficult and harder to solve).

- Within your groups, plot your papers along the priority line depending on where they fit.

PRIORITY LINE EXAMPLE

CHALLENGE: Reducing carbon emissions in the home

Consumption of clothes & electrical goods too high

No composting bin for waste food items

Major energy loss due to poor insulation - grants

Gas boilers produce high CO2 - replace with air source heat pumps?

Limited Re-using and recycling

More LED lightbulbs required

Single glazed windows produce high energy loss

Fossil Fuel cars create high levels of CO2

Important/ Cheaper ⟵ ⟶ Less important/ Costly

No draft excluders used to reduce energy use

Current appliances have low energy efficiency

Heating on to high & all day - no radiator thermostats

Shopping local even if this costs more

Lights, TV, phone chargers not switched off or unpluged

Ovens consume higher energy.. Buy an air fryer/microwave

Too much hard standing replacing green spaces

High number of long showers & deep baths

Too much meat consumed (especially red meat)

Extended Activities: Data Analysis & POV

- **Priority Grids** help you decide on what to focus on based on two different aspects (e.g. which problems are high priority, but low effort) (GS 9) & example next page
- **Diamond 9** activities help to rank and prioritise problems (GS 10)
- **Priority Lines** have two different extremes (at each end). The problems are placed along the line (problem as less significant, to extremely significant).

PRIORITY GRID EXAMPLE

CHALLENGE: Reducing carbon emissions in the home

HIGH IMPACT ON CO2

HIGHER COST

LOW/ NO COST

LOW IMPACT ON CO2

Gas boilers produce high CO2 - replace with air source heat pumps?

Single glazed windows produce high energy loss

Consumption of clothes & electrical goods too high

Heating on to high & all day - no radiator thermostats

Major energy loss due to poor insulation - grants

Fossil Fuel cars create high levels of CO2

More LED lightbulbs required

Limited Re-using and recycling

High number of long showers & deep baths

Current appliances have low energy efficiency

More green spaces being replaced with hard standing

No draft excluders used to reduce energy use

No composting bin for waste food items

Ovens consume higher energy.. Buy an air fryer/microwave

Shopping local even if this costs more

Too much meat consumed (especially red meat)

Lights, TV, phone chargers not switched off or unpluged

C: CREATE & IMPLEMENT IDEAS

CREATING & IMPLEMENTING

CORE ACTIVITIES

C1: How Might We Statements
C2: Brainstorming ideas
C3: Prototyping and testing

EXTENDED ACTIVITIES

Additional activities can be used to extend brainstorming and ideas creation.
Activities to assess and prioritise ideas can also be used.

This section will take you through some activities and examples for creating and implementing ideas and actions (linked to climate change). See the **Extended Activities Guide** for more suggestions

C1: How might we statements

How Might We (HMW) statements allow you to move from problems and begin to think through solutions (voices, choices and practical actions). They also provide a good basis to launch brainstorming.

Aim: To create a list of HMW statements connected to the challenge to help you think differently about a problem and/or find new solutions.

By putting the challenge problems into a question it can help to create new thinking and ideas.

How might we [verb – do something] [for a stakeholder, group, place…] ..

Verb: rethink, remove, lower, replace, reduce, use, create, make, reimagine, improve, educate, inform…

At the end of the **HMW statement**, you can also add **by……** to suggest a broad solution

HMW - Examples

- HMW encourage the canteen to compost more?
- HMW increase the locations where young people can put recyclable waste?
- HMW turn the image of waste into a good and useful thing?
- HMW provide more bins that encourage more recycling in the school?
- HMW increase the effective recycling of school waste?
- HMW ensure that the bins do not overflow or contain the wrong things?
- HMW reduce the use of single-use plastics in the school?
- HMW reduce carbon emissions in homes by educating people about how to lower energy usage in cost effective ways?
- HMW reduce energy loss for homes through low cost draught excluders?
- HMW increase the biodiversity of the schools grounds by planting more trees?
- HMW encourage local businesses to rethink their use of transport?
- HMW change the consumption habits of local businesses on single use plastics?

C1: HMW Extension: Thinking Differently

Goldilocks - Take care not to make HMWs **too broad** (HMW reduce energy usage) or **too narrow -** with simple solution baked in (HMW reduce energy usage by turning the temperature down). **Just right** could be **-** HMW reduce carbon emissions in the home by developing simple and cost effective energy reduction strategies.

Think Differently: **Improve the airport experience/waiting time for passengers**
Amp up the good: HMW use the kids' energy to entertain fellow passengers?
Remove the bad: HMW replace uncomfortable seats with better places to relax?
Explore the opposite: HMW make the wait the most exciting part of the trip?
Question an assumption: HMW reduce the wait time significantly at the airport?
Go after adjectives: HMW make the rush refreshing instead of harrying or boring?
I**D unexpected resource**s: HMW use the free time of passengers to achieve responsibility goals?

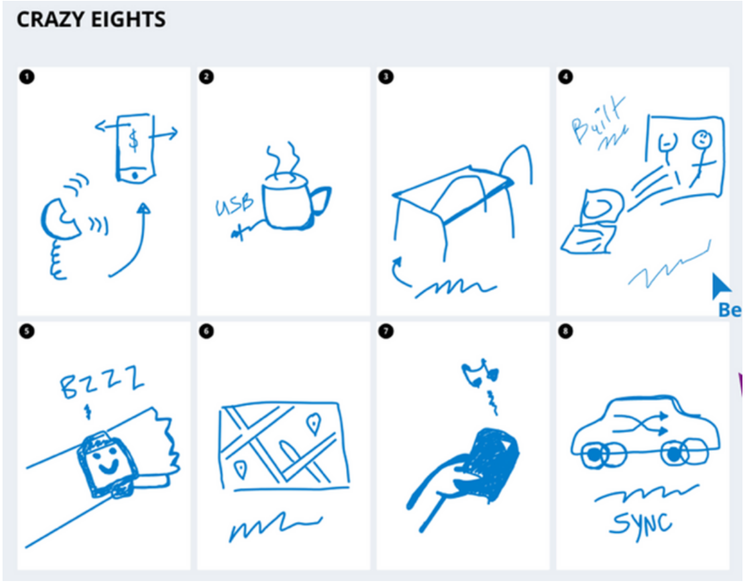
C1: HMW - Thinking Differently Examples

HMW **reduce energy usage** in the home by **improving insulation** in an affordable way and/or **reducing heating consumption**.

Amp up the good: HMW use other community spaces that are already heated? HMW design colourful draught excluders and reuse materials?
Remove the bad: HMW heat the rooms in use during the day or night and not other rooms?
***Explore the opposite*:** HMW use clothing and bedding that suits colder temperatures?
Question an assumption: HMW find alternative forms of heating and grants?
Go after adjectives: HMW make reducing energy fun and more engaging?
ID unexpected resources: HMW design new things to help reduce insulation problems (draught excluders) and reuse things from around the house (fabric)?

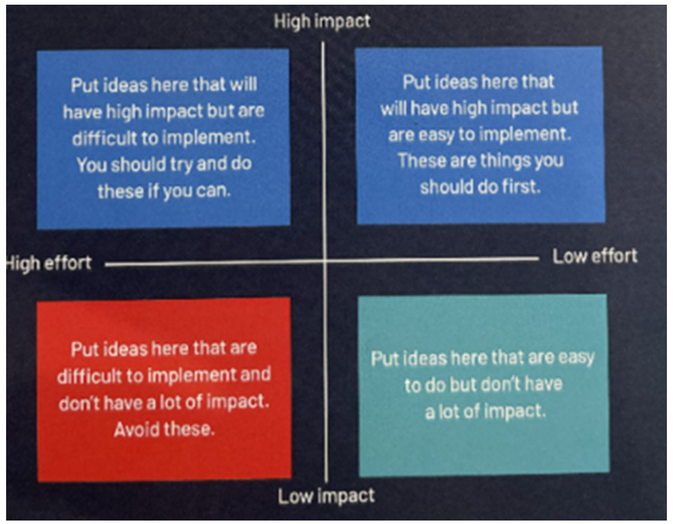
C2: Brainstorming & Ideas

You can simply ask the pupils to brainstorm ideas by writing them down on paper or post its (try to solve the problems or HMWs). You can then **Capture, Group & Theme** them into categories (GS 3).



Extended Activities

Sketching: Rather than writing down solutions, pupils can divide a piece of paper into 6, 8 or 12 boxes and draw (sketch) as many solutions as they can. The idea is to go outside the box and come up with ‘extreme’ and different ideas. (GS 11)

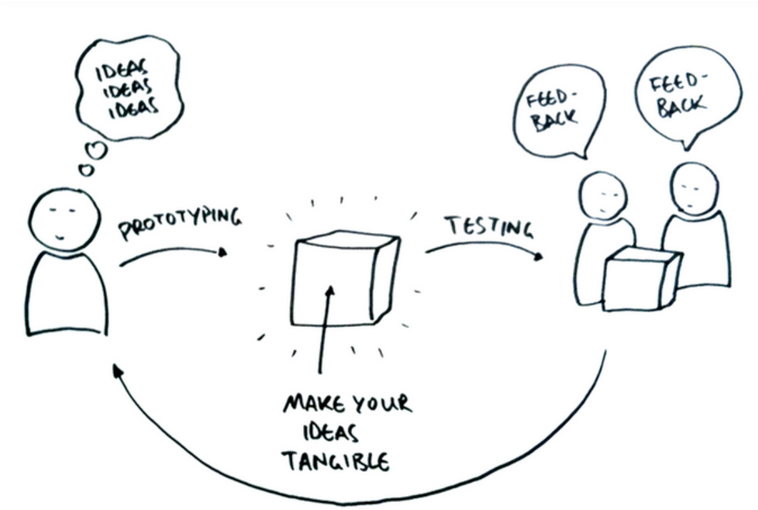


Priority Grids: You can also use priority grids to assess ideas based on certain criteria (e.g. impact and cost) (GS 9)

C3: Prototyping and Testing

Prototype Development

A prototype is a draft version of your final product. It will differ depending on what you plan to produce. For example, practical **actions** (planting trees, designing a recipe book, draught excluders, energy advice booklet), **choices** (consumer advice on sustainable palm oil, information on energy sources, eco-tourism, etc.) and/or **voices** (campaigns, posters, letters to business, government, etc.).



In the early stages, you may produce several quick and simple outlines in a draft form (sketches). You pitch and test these with others and refine them based on the feedback.

Pitching/Testing: You can pitch porotypes to your peer groups, teachers, experts and stakeholders in order to gather feedback and ideas to refine the design.

APPENDIX: EXTENDED ACTIVITIES

A1.1: CLIMATE COLLAGE/FRESK

If you are focusing on a challenge connected to climate change, you could begin with with one of the **Climate Fresk Activities.** You could provide a basic introduction or some videos linked to climate change, before completing this task. Or you could use this activity to develop their knowledge, team-working and oracy skills. Each card briefly explains the problem, so it can be used to learn more about the issues of climate change (See Appendix A1).

1. Select the Fresk cards relevant to your group (primary, secondary or combined). A mixture of cards can be used to suit their age and knowledge.
2. Pupils work in groups to decide where to place the cards and connect them up (linking by cause and effect).
3. Finally, you can discuss the cards and connections in the wider class.

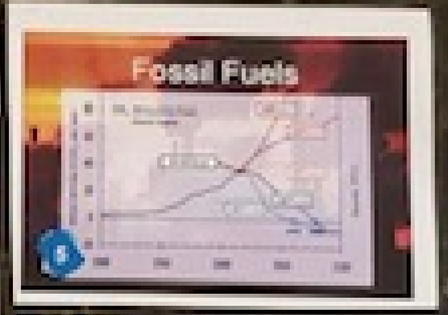

Deforestation
Industry
Fossil Fuels
Agriculture
Building Usage

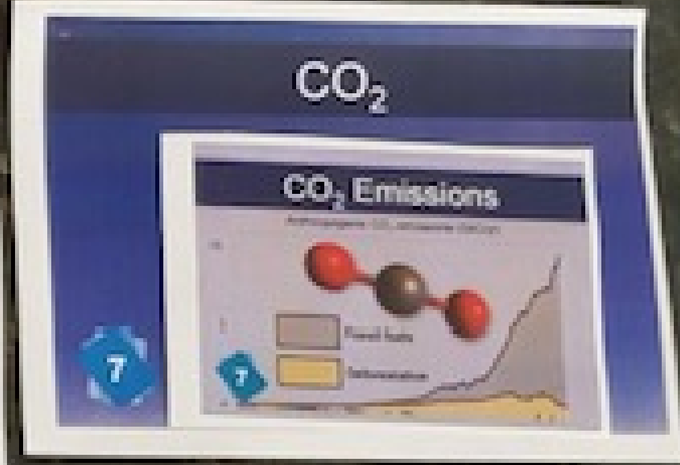

UKaid
from the British people
UNDP
CL!MATE
FRESK

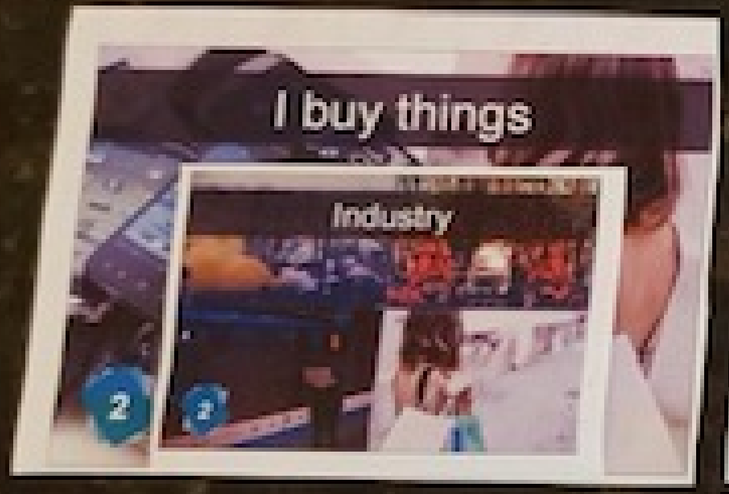

Methane Hydrates
Heat Waves
Forest Fires
Climate Refugees
Melting of Sea Ice
River Flooding
Decline in Agricultural Yields
Famines
Droughts
Human Health
Cyclones
Vectors of Disease
Increase in Water Temperature
Disruption of the Water Cycle
Armed Conflicts
Terrestrial Biodiversity

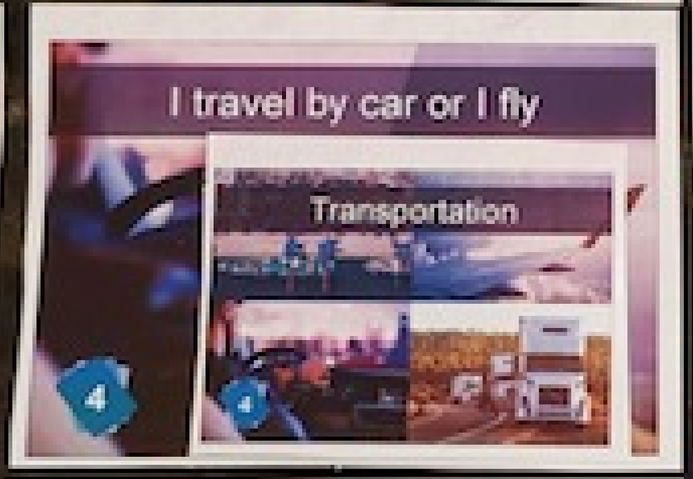

DAS KLIMA PUZZLE
Worauf warten wir noch?
Take Action
POLITIK
1,5°
TAKE ACTION

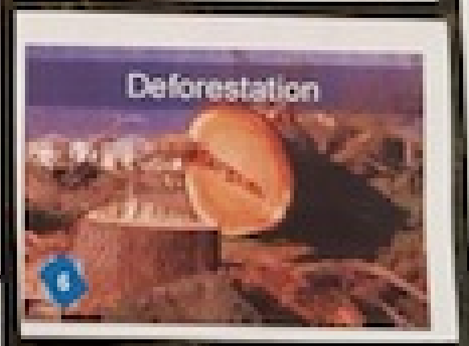
A1: CLIMATE FRESK CARDS

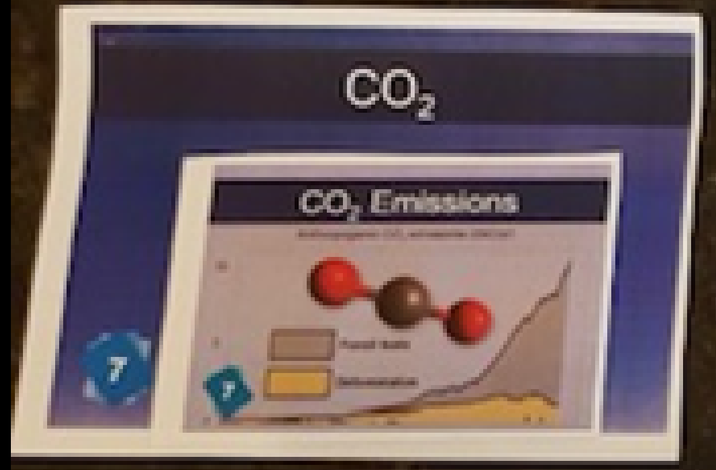


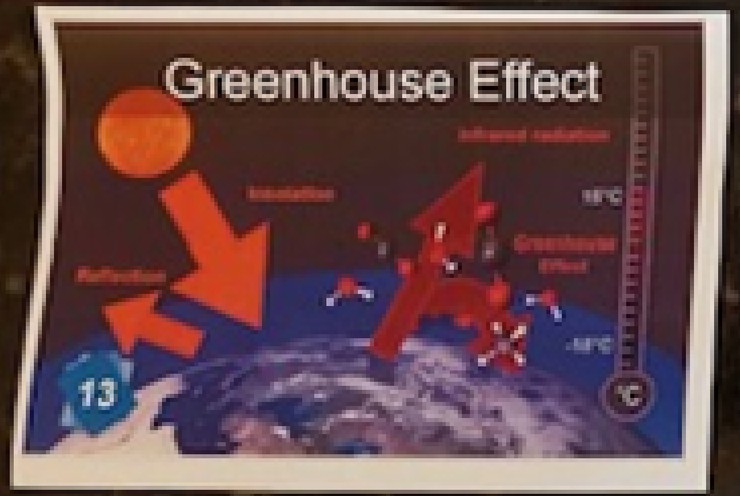


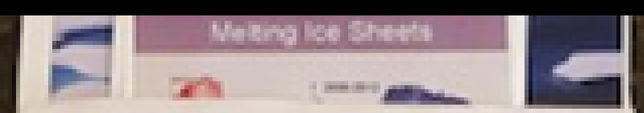







CO_2
CO_2 Emissions
7


Greenhouse Effect
13

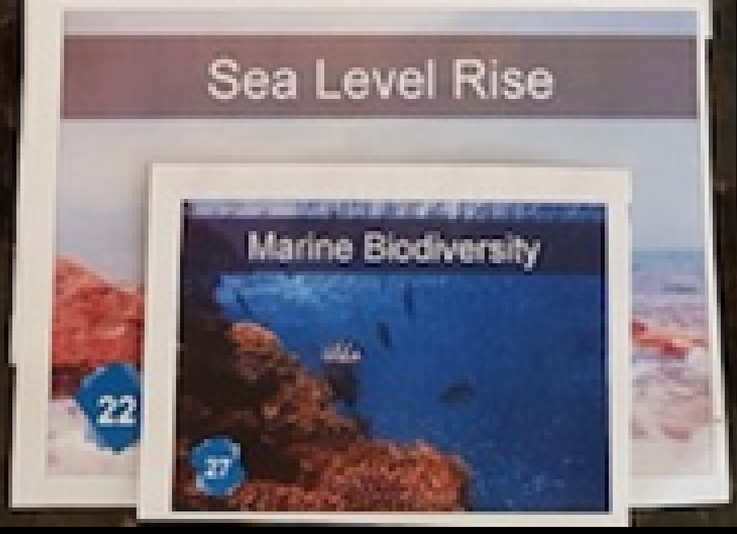

Melting Ice Sheets

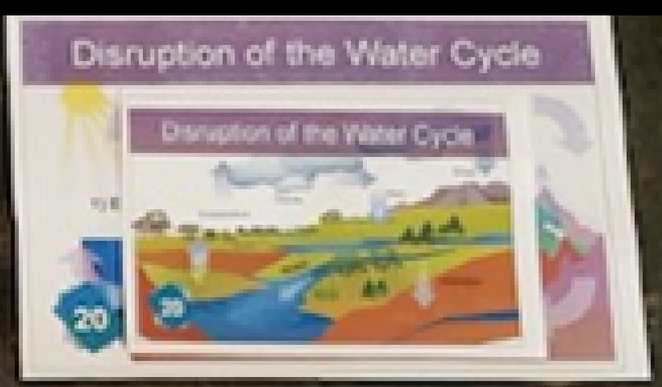

Warming of Oceans
Rising Water Temperatures

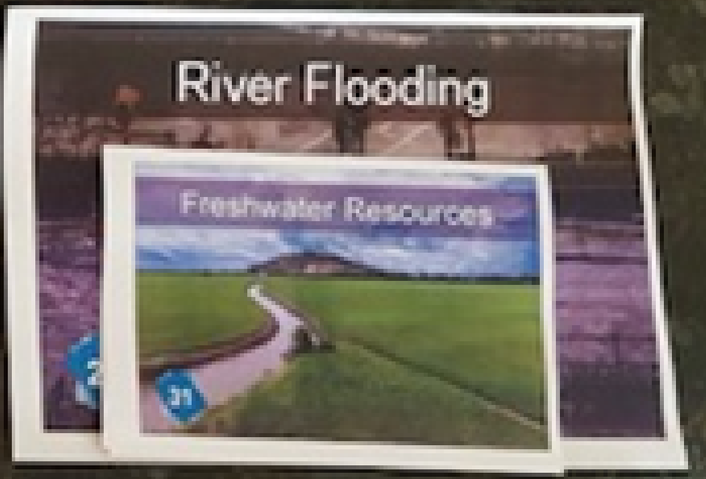

Melting of Glaciers

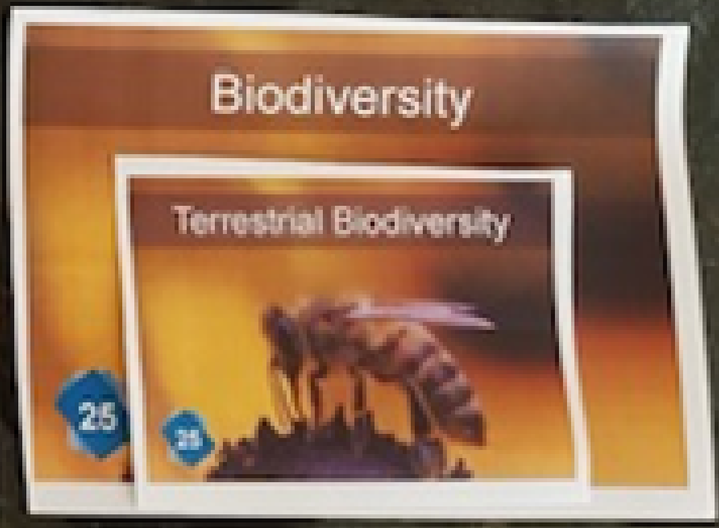

Temperature Increases
Rising Temperatures


Marine Submersion


Sea Level Rise
Marine Biodiversity
22
27


Disruption of the Water Cycle
Disruption of the Water Cycle
20


River Flooding
Freshwater Resources
31


Biodiversity
Terrestrial Biodiversity
25


CO_2
CO_2 Emissions
Heatwaves
Wild Fires
Starvation
Famines
Droughts
Droughts
Food Production
Decline in Agricultural Yields
Climate Refugees
Climate Refugees
Greenhouse Effect
Cyclones
Cyclones
Vectors of Disease
Armed Conflicts
Human Health