



Name

Class

## Teacher Preparation

### Learning intentions:

#### Students will...

- ... be able to investigate statistics and examine their meaning/relevance
- ... be able to construct scatter plots and examine and comment upon the relationships between variables

### Success criteria:

#### Students can...

- ... construct scatter plots from data tables
- ... examine scatter plots and comment upon the relationships between variables
- ... create a visual product that uses statistics and scatter plots to persuade an audience to change their behaviour

**Make the learning intentions and success criteria visible  
for students throughout this lesson.**

**Teacher content information:** A 2018 study by [The University of Melbourne](#) on the thoughts and concerns of young people from Generations X and Y found the number one concern across both groups was lack of action around climate change. In particular, "Generation X worries what climate change will mean for their own children, while Generation Y is concerned about the impact on future generations" ([The Educator](#)). The report indicates that young people have a serious mistrust in the Government's ability or willingness to tackle climate change.

Tackling climate change requires large-scale, systemic changes across all aspects of society. Simply aiming to reduce our CO<sub>2</sub> emissions is not enough: we need to rapidly decarbonise our planet. While this might sound challenging, the good news is we already have the knowledge and tools to do it.

2040 is an innovative feature documentary that looks to the future while focusing on what is happening now. Award-winning director Damon Gameau (director of [That Sugar Film](#)) embarks on a journey to explore what the future could look like by the year 2040 if we simply embraced the best solutions already available to us to improve our planet and shifted them into the mainstream.

The film will demonstrate to your students that we already have the solutions to climate change; we just need to take action to bring them rapidly into the mainstream. The 2040 documentary and curriculum package will support your students in turning this knowledge into positive action for a better future.

Find out how to see the film [here](#). 2040 will only be available in cinemas for the first part of 2019 and you can make a group booking for your class at your local cinema during the film's theatrical release which starts on May 23. These lessons have been designed with a media library to support teachers. The film will be available on video-on-demand and DVD later in 2019.

The film is the entry point to a global impact campaign that seeks to mobilise audiences to learn about, contribute to, advocate for and invest in regenerative solutions that improve the wellbeing of the planet, all people and all living systems.

To join the Regeneration and share your vision for 2040, see the [website](#).

Watch the 2040 trailer:



**2040 - Official Trailer Password: 2040\_EDU**

(<https://vimeo.com/showcase/6167669/video/325372102>)

Cool Australia, GoodThing Productions and Regen Pictures would like to acknowledge the generous contributions of [Good Pitch Australia](#), [Shark Island Institute](#), [Documentary Australia Foundation](#), [The Caledonia Foundation](#) and our philanthropic partners in the development of these teaching resources.

**On the issue of transport:** *"Transport produces 7 gigatons of carbon dioxide-equivalent greenhouse gas emissions annually, or 23 percent of energy-related emissions, which is around 14 percent of all emissions... Transport, however, is a service derived from economic growth. We find that wealthier people travel more, locally and internationally, and demand more goods and services. So, as a country develops economically, the movement of people and goods increases..."*

*Some transport can only currently be made more efficient at using existing fossil fuels; others, however, do have alternative fuels, such as electricity for cars instead of gasoline... Other modes of transport can be avoided completely using information and communication technologies."*

Some of the most effective solutions for reducing emissions in the transport sector include:

- Using improved technologies to develop more fuel-efficient aircraft
- Increased use of hybrid cars
- Increased use of electric bikes instead of cars
- Increased ride-sharing when commuting
- Using improved technologies to develop more fuel-efficient ships
- Replacing flying for business with telepresence technologies
- Increasing the use of electric trains for freight
- Increasing the use of fuel reduction technologies for trucks

(Source: <https://www.drawdown.org/solutions/transport>)

## The IPCC

The [\*\*Intergovernmental Panel on Climate Change \(IPCC\)\*\*](#) is the United Nations body for assessing the science related to climate change. It was created to:

- provide policymakers (governments) with regular scientific updates about climate change;
- highlight the impact climate change will have on the planet in the future; and,
- offer some ideas about how to tackle the challenges of climate change's potential effects on the planet.

In 2021-22, the IPCC released their [\*\*sixth assessment report\*\*](#). This is the most up-to-date physical understanding of the climate system and climate change.

The report makes a number of important points:

- It is unequivocal that human influence has warmed the atmosphere, ocean and land.
- Global surface temperature will continue to increase until at least mid-century under all emissions scenarios considered. Global warming of 1.5°C and 2°C will be exceeded during the 21st century unless deep reductions in CO<sub>2</sub> and other greenhouse gas emissions occur in the coming decades (B1). The report describes five possible climate futures, where #1 is not great and #5 is extremely bad. If we want to keep global warming at less than two degrees, which the IPCC says is the best-case scenario, we need to reduce our CO<sub>2</sub> and greenhouse gas emissions significantly and start right away.

'Net zero' or 'carbon neutral' are terms that refer to achieving an overall balance between greenhouse gas emissions produced and greenhouse gas emissions taken out of the atmosphere. Getting to net zero means we can still produce some emissions, so long as we're doing something else to reduce the greenhouse gases already in the atmosphere at the same time, kind of like balancing a set of scales ([more info](#)).

**Psychological safety.** The IPCC Report sets a hard challenge. While this real-world issue is essential for students to understand, there is no doubt it can make them feel sad or anxious about the future is becoming darker and scarier by the day.

So, reassure students that we can have a hopeful and optimistic outlook on this report, rather than one of doom and gloom. Explain that optimism involves looking objectively at a situation and making a conscious decision to focus on the good ([more info](#)), and that hope is the belief that you **can** make an impact ([more info](#)). Explain to students that you are going to look ahead, identify what needs to be improved, and then work on the skills and confidence so that they can go out and do it.

If you're interested in learning more about how to approach challenging topics around climate change and sustainability in your classroom through a Hope and Optimism lens, consider [our PD course](#).

These lessons have been created in partnership with

2040, Good Thing Productions

