

Exploring the Systems We Live In



Name

Class

Teaching sequence

Work through this resource material in the following sequence:

10 minutes

Tune In: Systems thinking

20 minutes

Find Out: Regenerative systems

25 minutes

Take Action: Rethinking businesses

5 minutes

Reflection: Exit slip

Learning intentions

Students will:

- explore the concept of the circular economy and its impact on sustainability
- understand how strategies can be used to promote environmental action and awareness.

Success criteria

Students can:

- explain the principles of the circular economy and its benefits
- analyse how sustainable strategies can influence individual and collective action.

Tune In: Systems thinking

Step 1

On the whiteboard, write the following question: What do we mean when we talk about systems?

Write student responses on the whiteboard around the question, as you prompt them to think about examples of systems that impact liveability, such as:

- waste management systems
- food production systems
- water systems
- energy systems.

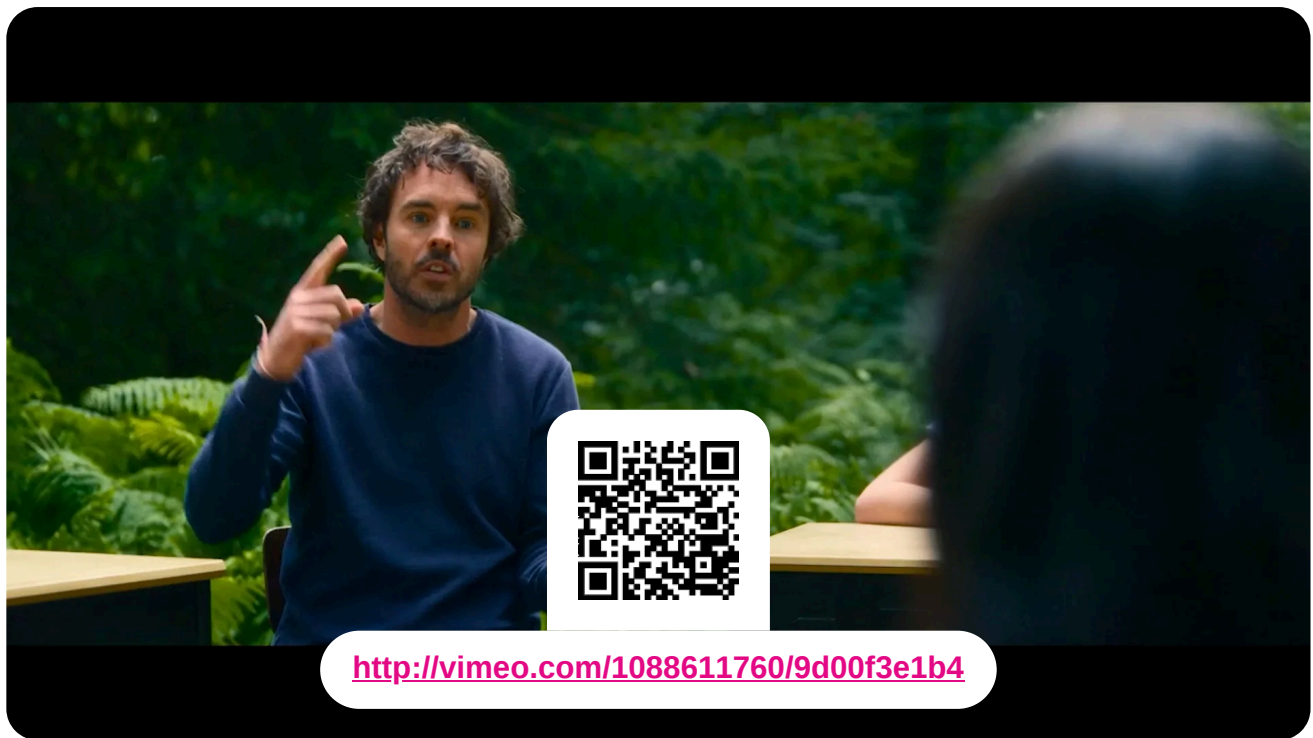
Explain to students that some of these systems can be **circular**. A circular system works in a loop, where waste or byproducts are reused or regenerated, reducing the need for new resources.

Examples of circular systems:

- **Circular waste systems:** Many waste systems are linear: take, use, dispose. This leads to landfills and pollution. Circular waste systems aim to close this loop and reduce waste by recycling, composting and reusing materials. For example, plastic waste can be turned into new products, and food scraps can be composted to enrich soil. These systems also focus on designing products and packaging that are easier to recycle or repurpose, reducing waste from the start and conserving resources.
- **Circular food systems:** In many food systems, food is produced, consumed, and leftover waste is discarded, leading to high levels of food waste. Circular food systems involve practices like zero-waste cooking, regenerative agriculture, food sharing to minimise waste and creating food waste-to-energy systems (for example, turning organic waste into biogas). These systems close nutrient loops by composting organic waste to improve soil health and crop yields, supporting sustainable farming. Local sourcing and seasonal eating reduce transport emissions and food spoilage, making food systems more circular and environmentally friendly.
- **Circular water systems:** In linear water systems, water is extracted, used, and then treated as waste (such as sewage treatment). Circular water systems aim to recycle and reuse water to reduce extraction and pollution. For example, rainwater harvesting can provide water for irrigation or cleaning, while greywater recycling can treat wastewater for non-potable uses (for example, flushing toilets or irrigation). Technologies such as constructed wetlands and water-sensitive urban design mimic natural water cycles, helping to manage water sustainably and protect ecosystems.
- **Circular energy systems:** Energy systems are typically linear, with extraction, use, and disposal. Energy systems traditionally rely on fossil fuels, which are extracted, burned for energy, and emit carbon that harms the climate. Circular energy systems use renewable sources like solar and wind, which generate energy without depleting resources or emitting greenhouse gases. They also incorporate energy storage technologies like batteries, enabling better energy management and balancing supply with demand. Additionally, recovering waste heat from industrial processes and implementing smart grids to optimise energy use help reduce waste. Recycling materials from renewable energy technologies (such as solar panels and batteries) further supports circularity.

Step 2

Next, introduce students to the story of Groth, as told by Damon Gameau in the *Future Council* documentary. Outline to students that *Future Council* is a feature documentary that takes 8 kids on the ultimate school excursion, a road trip across Europe to challenge powerful leaders and find solutions to our greatest ecological challenges.



Future Council Clip 1 - (<http://vimeo.com/1088611760/9d00f3e1b4>)

Step 3

Outline to students that before the video, they explored different types of systems and outlined different issues. Groth's concept highlights that these different systems are not separate. Instead, solutions to various issues collectively reduce destructive industries and enhance the importance of circular, regenerative industries. But how do we tame Groth?

Step 4

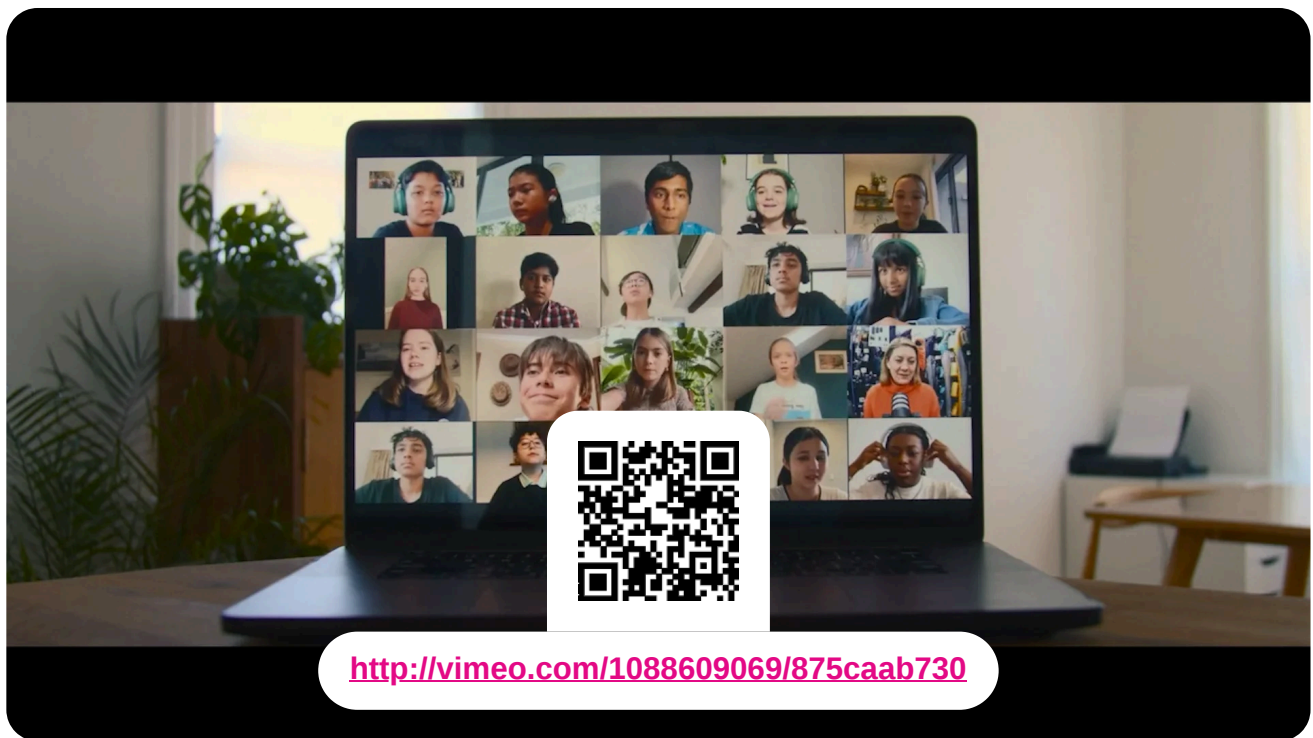
Initiate a class discussion about the concept of Groth using the following prompts:

- How do certain systems benefit or disadvantage us?
- How do we grow with wisdom about our planet?
- How can we target different issues in the same system?
- What are ways we can tame Groth in everyday life?

Find Out: Regenerative systems

Step 1

As a class, watch the following clip from *Future Council*, which highlights the importance of regenerative systems.



[Future Council Clip 2](http://vimeo.com/1088609069/875caab730) - (<http://vimeo.com/1088609069/875caab730>)

Step 2

Reiterate to students the difference between regenerative systems and circular systems. Regenerative systems expand beyond circular systems as they focus on restoring and improving ecosystems, whereas circular systems aim to maintain resources through an often closed-loop process.

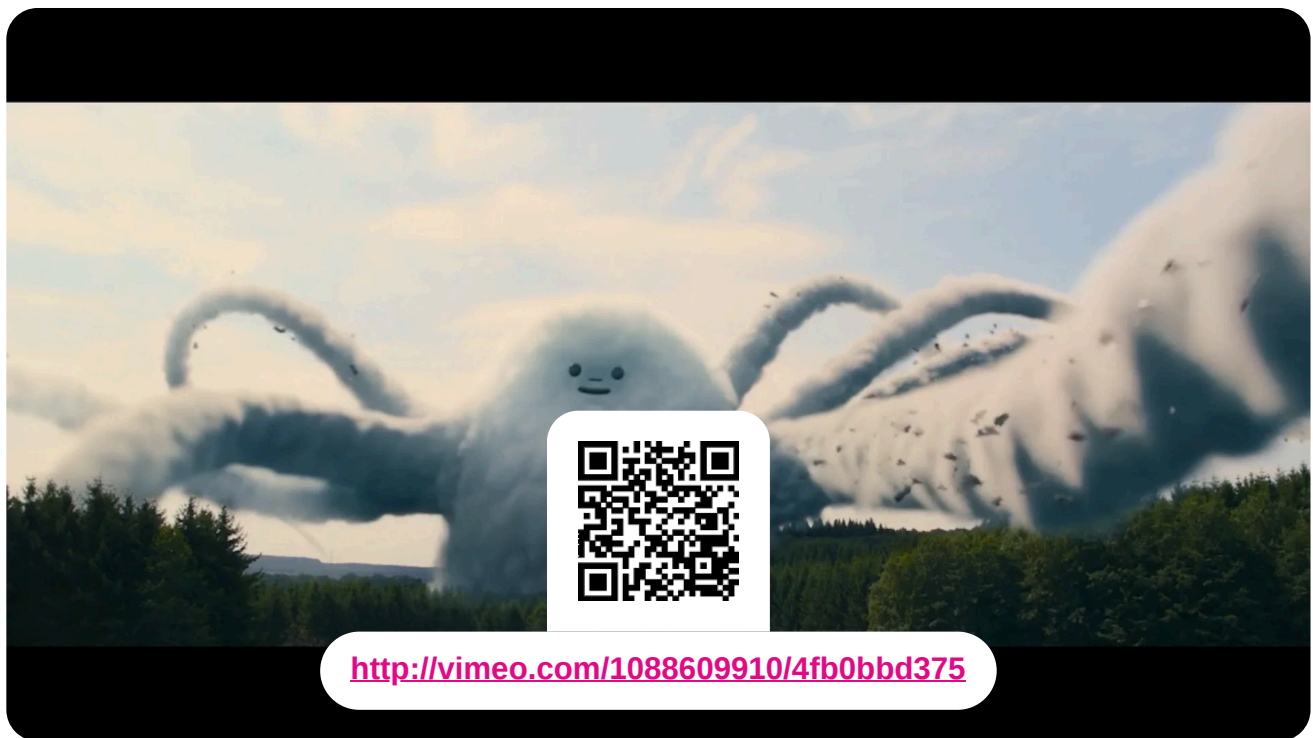
Step 3

Now, it's time for students to explore examples! Divide them into pairs and give them a copy of the Student Worksheet. On the [Student Worksheet](#), students investigate the different companies and projects to identify their contribution to a regenerative or circular system.

Take Action: Rethinking businesses

Step 1

Watch the following clip from *Future Council*. This video features the Future Council advising Decathlon on sustainable strategies.



[Future Council Clip 3](http://vimeo.com/1088609910/4fb0bbd375) - (<http://vimeo.com/1088609910/4fb0bbd375>)

Step 2

After viewing, discuss as a class:

- What solutions did the Future Council suggest?
- How could these ideas help Decathlon reduce its environmental impact?

Step 3

Similar to how the Future Council advised Decathlon on sustainability, your students' mission is to investigate a local product, business, or corporation and come up with practical, circular economy-inspired recommendations to help them become more sustainable.

In small groups, students must pick a local product, business, or corporation they would like to improve. It could be their favourite clothing brand, local cafe, or a big company they are familiar with. Using their devices, they must research the chosen business's current practices by looking at its website, social media, or news articles.

Students must identify:

- What environmental impacts do they have?
- What do they already do well?
- Where could they improve, especially regarding waste, energy, or sourcing?

Step 4

Using poster paper or digital tools like [Canva](#) or [Google Slides](#), students brainstorm and list 3-5 practical, creative recommendations for how their business could adopt sustainable and circular practices. Encourage them to think about ideas like:

- reducing single-use plastics
- recycling and upcycling materials
- using renewable energy
- designing products for repair and reuse
- supporting local suppliers and fair trade.

Learning extension: Create a catchy slogan or hashtag for your recommendations that the business could use on social media.

Step 5

It's time for students to pitch their plan to the class as if they are a member of the Future Council advising the business. Encourage students to be persuasive and clear when explaining why their recommendations matter and how they will benefit the community and the environment.

Reflection: Exit slip

Step 1

On a sticky note, ask students to respond to the following question:

Why do you think community-based solutions are important for promoting sustainability? Give 1 example of a community action that can make a positive impact.

Step 2

Collect the sticky notes from the students and redistribute them to different students. Ask the students to read the response, and write 1 piece of advice or feedback.

These lessons have been created in partnership with

Future Council and Regen Studios

