

# The Ripple Effect: Modeling Impact

(Year 8 - Ages 13-14)

## Lesson 2 of 9

### Lesson Summary

In Lesson 1, students learned about the "Butterfly Effect" (Chaos Theory) and how small biological changes can save a system. In Lesson 2, they apply this concept to Social Networks.

This 60-minute lesson challenges students to act as "Social Architects." They will investigate how ideas, values, and biological gifts travel through a community. Using a "Network Mapping" activity (similar to modeling a viral outbreak or social media trend), students will visualize the "Multiplier Effect" of donation. They will confront the reality that while biological donation is rare (2%), the impact of that donation is massive, touching families, friends, and future generations. This lesson bridges the gap between the individual donor and the wider society.

### Learning Intentions

Students will .....

- Understand the concept of a Social Network and how actions (like donation) ripple through it.
- Investigate the "Multiplier Effect" of organ and tissue donation (1 donor = 7 lives saved + many restored).
- Analyze how different community groups (e.g., families, cultural groups) influence the spread of information and values.
- Recognize that empathy is the "connector" that allows these networks to function positively.

### Success Criteria

Students can .....

- Draw a basic "Impact Network" showing how one donor connects to multiple recipients and their families.
- Explain why the impact of donation is "exponential" rather than linear.
- Identify two "Barriers" (e.g., lack of information, fear) that might stop the ripple effect.
- Suggest one strategy to help the "ripple" travel further (e.g., education, conversation).

### Lesson Details

Time:	60 minutes
Year Level:	Year 8 (Ages 13-14)
Unit:	This is Lesson 2 of 9 in the series.
Educational Partner:	This lesson is adapted from resources provided by DonateLife

### General Capabilities

Numeracy (Patterns/Scale); Personal and Social Capability; Critical and Creative Thinking; Intercultural Understanding.



# Curriculum Mapping and Links

## Australian Curriculum (v9.0)

Subject	Strand	Content Descriptor
Mathematics	Statistics / Probability	<u>AC9M8P01</u> : Analyze relationships... and model situations involving probability. (Focus on the probability/impact of donation scaling)
Health and Physical Education (HPE)	Personal, Social and Community Health	<u>AC9HP8P02</u> : Investigate the benefits of relationships that value diversity... and how these influence wellbeing. (Community networks)
Civics and Citizenship (HASS)	Knowledge and Understanding	<u>AC9HS8K04</u> : The freedoms and responsibilities of citizens... (The responsibility to contribute to the social network)

## Queensland Curriculum (QCAA)

Subject	Syllabus	Content Description
Mathematics	Year 8	Use mathematical modelling to solve practical problems (Exponential growth/impact).
Health and Physical Education (HPE)	Year 8	Analyze how connection to community supports health and wellbeing.
Civics and Citizenship (HASS)	Year 8	How citizens participate in civil society.



## Resources Required

- Whiteboard/Smartboard.
- Resource: "The Network Node Cards" (Cards representing people: Donor, Recipient A, Recipient B, Doctor, Family Member, etc.).
- String/Wool: A ball of red string to physically map connections in the classroom.
- Student Worksheet: "The Impact Architect: Mapping the Network."
- Video Hook: A clip showing a "Network Visualization" (dots connecting lines) or a domino chain reaction.

## Skills

- Network Analysis (Understanding connections).
- Systems Thinking (Social systems).
- Empathy (Visualizing the reach of kindness).
- Data Interpretation (Understanding the scale of 1:7).

## Teacher Preparation

- The Metaphor: "The Network." Explain that society is like a giant web or the internet. People are "Nodes" and relationships are "Links." Donation is a "Signal" sent through the network.
- The String Activity: Be prepared to run a physical activity where students stand in a circle and pass a ball of string to connect "Donor" to "Recipient" to "Recipient's Family," visually creating a web.
- Key Concept: Exponential Impact. One person saves 7. Those 7 people have families (e.g., 4 people each). That's 28 people immediately impacted. If those 7 people live for 20 more years, the impact grows further.

## Additional Information

This lesson appeals to the "Logic/Math" side of the brain while reinforcing the "Heart" message. By visualizing the impact as a graph or network, students can see the value of altruism. It moves the concept from "being nice" to "being effective."

