

Mathematics Level 7

Chapter 6 — Concluding, deciding and communicating

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Drawing evidence-based conclusions: four concept lenses and the ethical values behind them

Curriculum focus — Victorian Curriculum 2.0, Geography, Levels 7 and 8, strand *Geographical Skills*. Content description VC2HG8S05. Elaborations drawn on: VC2HG8S05.E01 (debating answers to geographical questions through the four concepts), VC2HG8S05.E02 (testing a conclusion against evidence that points the other way), VC2HG8S05.E03 (using at least one concept to organise a conclusion), VC2HG8S05.E04 (explaining how an issue affects people, places and environments), VC2HG8S05.E05 (explaining the reasons behind decisions and choices), VC2HG8S05.E06 (debating the ethical issues that deciding an answer raises).

In this section

In Chapters 1–4 you built your knowledge of water, liveability, landscapes and cities. In Chapter 5 you learned to ask geographical questions, collect information and data, represent it in maps and graphs, and interpret it. This section is the next step of the inquiry: you take everything you have found and **draw a conclusion** — and you think about the **ethical values** (ideas about what is right and fair) that should guide it.

In this section you will learn:

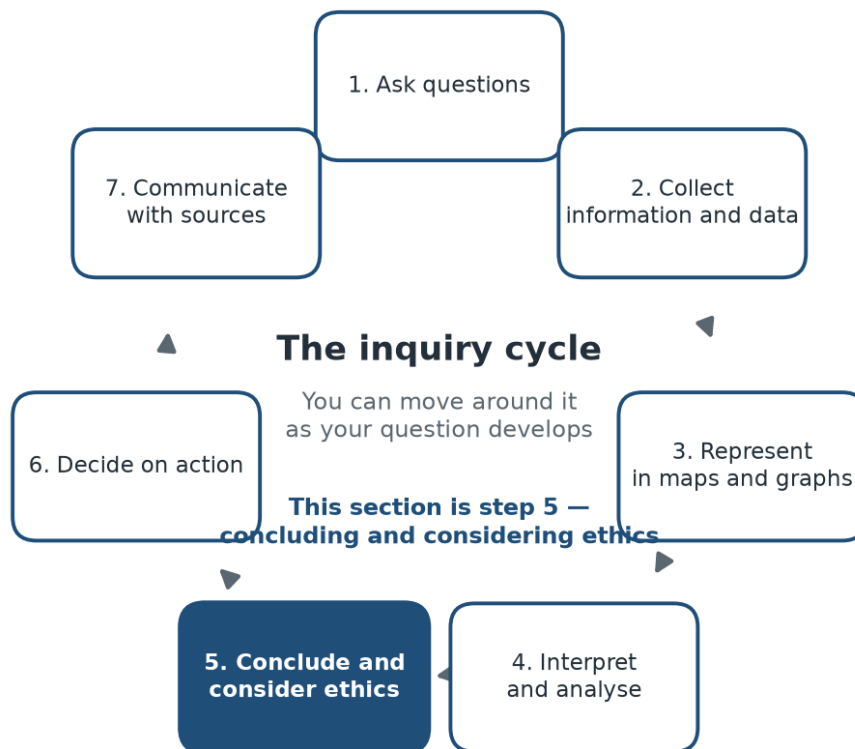
- the difference between an opinion and an **evidence-based conclusion**;
- how to use four concepts — **space, change, interconnection** and **environment** — as lenses to organise a conclusion;
- how to **test** a conclusion by looking at evidence that points the other way;
- how to explain the **impacts** of an issue on people, places and environments;
- how to think about **ethical values** — including what the word *fair* really means — when deciding an answer.

Key words to learn: conclusion, evidence, evidence-based, ethical values, fairness, contested, lens, space, change, interconnection, environment, impact, perspective, steelman, source.

1. Where this section sits in the inquiry cycle

Geographical inquiry is a cycle, not a straight line. You have already practised asking questions, collecting, representing and interpreting. Now we work on step 5: concluding and considering ethics.

Where this section sits in the inquiry cycle



A circular diagram of the seven-stage inquiry cycle: ask questions, collect information and data, represent in maps and graphs, interpret and analyse, conclude and consider ethics, decide on action, communicate with sources; stage 5 is filled in to show this section

A conclusion is not the end of thinking. A good conclusion is what later action and communication start from — deciding on action and communicating your findings are the next two sections of this chapter. Here, our job is to make your conclusions **evidence-based** and **ethically considered**.

2. What is a conclusion?

In everyday speech, people use “conclusion” to mean “the end”. In geography, a **conclusion** is a **judgement you reach by reasoning from evidence**. It is not the same as an opinion.

Opinion vs evidence-based conclusion

An opinion	An evidence-based conclusion
(a personal view, no evidence given)	(a judgement built on evidence)
"Melbourne is the best city and it should keep getting bigger."	"76.8% of Victorians live in Greater Melbourne (ABS, 2025), so the state's services and jobs are crowded into one place."
- x says what someone feels - x gives no evidence or source - x cannot be tested or checked - x may ignore other people's needs	✓ uses data and names its source ✓ gives a reason, not just a feeling ✓ can be tested against other evidence ✓ can still be improved or corrected

A conclusion is a judgement you reach by reasoning — an opinion is a view you hold. Geography asks for the first.

Two panels. Left: an opinion, a personal view with no evidence given, such as “Melbourne is the best city and it should keep getting bigger.” Right: an evidence-based conclusion, a judgement built on evidence, such as “76.8% of Victorians live in Greater Melbourne (ABS, 2025), so the state’s services and jobs are crowded into one place.”

Notice what the evidence-based conclusion does:

- it **uses data** (76.8% of Victorians) and **names its source** (the Australian Bureau of Statistics, 2025);
- it **gives a reason** (“... so services and jobs are crowded into one place”);
- it **can be tested** — someone else can check the data, or bring different evidence.

An opinion cannot do these things. That does not mean opinions are bad; they are simply not conclusions. Geography asks you to go further than what you feel.

3. Four lenses for organising a conclusion

The content description for this section names four concepts: **space**, **change**, **interconnection** and **environment**. A good conclusion is organised through at least one of them. Think of each concept as a **lens** — an organising idea that tells you what to look for and how to shape your claim.

Four lenses for organising a conclusion

Every conclusion in this section is built through at least one of these concepts.

SPACE

This lens asks:

Where are things? How is space used, shared or left empty?

A conclusion could start:

"Most Australians live on a narrow band of coast, so ..."

CHANGE

This lens asks:

What is different over time? What is causing the difference?

A conclusion could start:

"Southern Australia has dried since 1970, so ..."

INTERCONNECTION

This lens asks:

How are people, places and environments linked?

A conclusion could start:

"What farms take from the river affects towns further along it, so ..."

ENVIRONMENT

This lens asks:

How does the natural world work, and how is it affected?

A conclusion could start:

"Healthy rivers also need water, so ..."

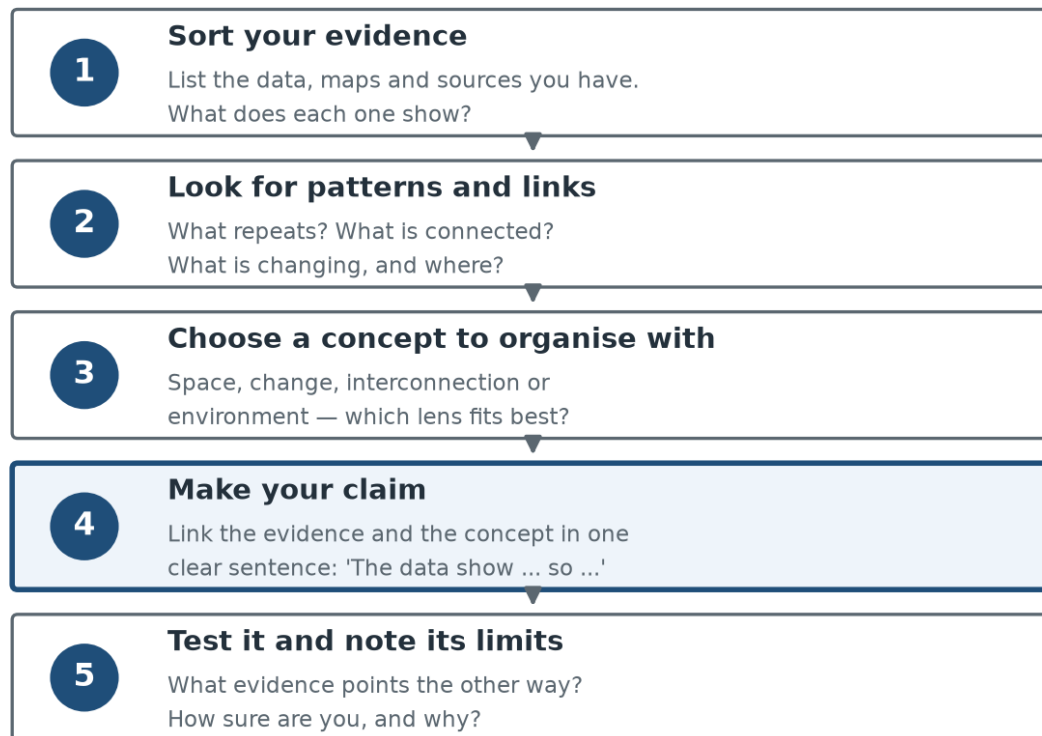
Four cards, one per concept. Space asks where things are and how space is used; change asks what is different over time; interconnection asks how people, places and environments are linked; environment asks how the natural world works and how it is affected. Each card shows a sentence starter for a conclusion

You may use more than one lens at once — the worked demonstrations below each use two. If you are not sure which lens fits, ask: is my question mainly about *where* (space), *over time* (change), *links between places* (interconnection), or *the natural world* (environment)?

4. Building a conclusion in five steps

Drawing a conclusion is a skill you can practise step by step.

How to draw an evidence-based conclusion



A five-step flow chart: 1 sort your evidence; 2 look for patterns and links; 3 choose a concept to organise with; 4 make your claim by linking evidence and concept in one clear sentence; 5 test it and note its limits

Step 4 is where many students slip into opinion. The fix is a sentence shape: “**The evidence shows ... so ...**” The first half reports what the data, maps or sources say; the second half is your judgement. If you cannot fill in the first half with something you actually found, you do not have a conclusion yet.

5. Testing a conclusion against the other side’s evidence

A first conclusion is a draft, not a finish. The habit of a good geographer is to ask: **what evidence points the other way, and does my conclusion survive it?** Usually the answer improves the conclusion — it becomes more careful, more exact, and more honest about its limits.

Testing a conclusion: does it survive the other side's evidence?

My first conclusion

"Because south-east Australia is getting drier, farming there will not be able to keep going."



Evidence that supports it

Bureau of Meteorology records show south-east Australia's cool-season rain has fallen by about 9% since 1994, and temperatures have risen.



Evidence that points another way

Farms can change crops, use drip irrigation and recycle water.
Some places still get enough rain in other seasons.



My tested conclusion

"Farming in the south-east will become harder and will need to change how it uses water — but it does not have to stop. How much it changes depends on the choices farmers and governments make."

A four-row worked model: a first conclusion ("Because south-east Australia is getting drier, farming there will not be able to keep going"); evidence that supports it (Bureau of Meteorology records of falling cool-season rain and rising temperatures); evidence that points another way (farms can change crops, use drip irrigation and recycle water); and a tested conclusion (farming will become harder and must change how it uses water, but does not have to stop)

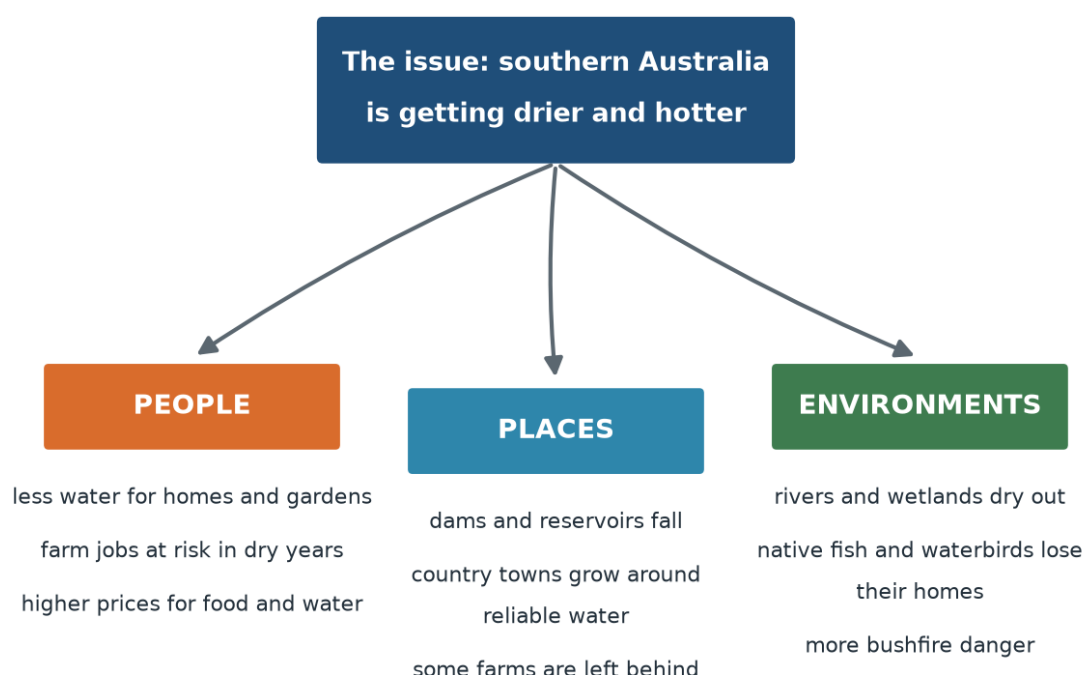
Look at what happened between the first and the tested conclusion. The tested one is not a different answer — it is the *same* answer, made stronger: it keeps the claim about a drying climate, adds what farms can do about it, and says what the outcome depends on. **Testing does not mean disagreeing with yourself; it means building a conclusion that can survive disagreement.**

6. Explaining effects on people, places and environments

When you evaluate an issue, you must explain its **impacts** — the effects it has. A clean way to do this is to sort impacts into three buckets: **people** (health, jobs, costs, daily life), **places** (how places grow, shrink or change character), and **environments** (rivers, soils, plants, animals).

Sorting impacts helps you explain them clearly

One issue rarely affects just one thing. A good conclusion traces the effects on people, places and environments.



A web diagram with the issue “southern Australia is getting drier and hotter” at the top, branching to three boxes. People: less water for homes and gardens, farm jobs at risk in dry years, higher prices for food and water. Places: dams and reservoirs fall, country towns grow around reliable water, some farms are left behind. Environments: rivers and wetlands dry out, native fish and waterbirds lose their homes, more bushfire danger

Sorting impacts this way stops you from giving a one-sided answer. It also sets up your ethics step, because impacts on people and impacts on environments can pull in different directions — and deciding between them is where values come in.

7. Ethical values: what does “fair” mean?

Ethical values are the ideas about what is right and fair that we use when we judge. They matter in geography because almost every real answer — who gets the water, where the hospital goes, what we protect — affects some people and places more than others.

Here is the catch: **fairness is a contested word**. A **contested** word is one that people use to mean different things, and the meaning you pick changes your answer. Look at three common meanings:

“Fair” can mean ...	... in sharing river water
the same for everyone	every group of users gets an equal share
based on need	water goes first to those who need it most to live and stay healthy
based on what people have built up	farms that put money and work into water systems keep their share

Two thoughtful people can disagree about a water decision *only* because they are using different meanings of fair. So the first ethical move is always to **say what you mean by fair** — and to notice that others may mean something else.

Three tools for reasoning about what is fair

"Fair" is a contested word

People use it to mean different things, and which meaning you pick changes your answer. So before you argue, say what you mean by fair — and remember others may mean something else.

1

1. Define the word

State what you mean. For example: 'By fair I mean everyone gets what they need to live well.'

2

2. The everyone test

Ask: 'Would it still work if everyone did this?' If not, the action may not be fair. (This test is from the philosopher Immanuel Kant, 1785.)

3

3. Steelman both sides

Put each side of the debate in its strongest, kindest form before you decide. Judge the reasoning, not who you like.

A toolkit card set: "Fair" is a contested word, plus three tools: 1 define the word by saying what you mean; 2 the everyone test, "would it still work if everyone did this?", from the philosopher Immanuel Kant, 1785; 3 steelman both sides by putting each side in its strongest, kindest form before judging

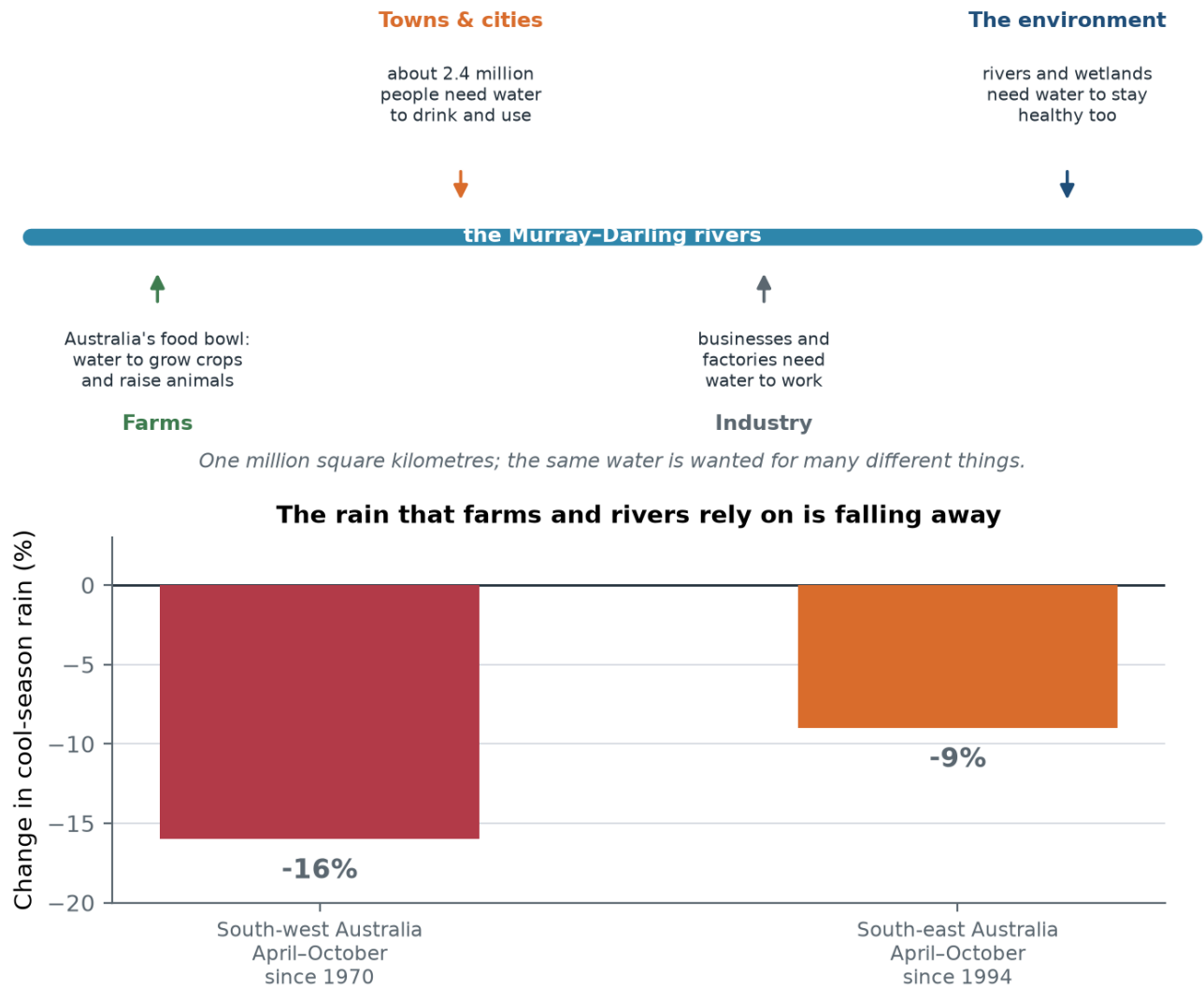
Tool 2 deserves a closer look. The **everyone test** asks: *would it still work if everyone did this?* It comes from the philosopher **Immanuel Kant** (in his *Groundwork*, 1785), who argued that an action is only right if you could accept everyone acting that way. It is a quick way to catch a double standard.

Tool 3, the **steelman**, is how we debate in this subject: put each side in its **strongest** form before you judge it — never argue against a weak or silly version of someone else's view. In this section, your work is marked on the quality of your reasoning and your use of evidence, **not** on which side you end up on.

Worked demonstration 1 — Sharing the Murray–Darling's water in a drying climate

The issue. The **Murray–Darling Basin** is Australia's largest river system and its biggest farming region. Who should get the water when there is not enough for everyone?

Evidence for Worked demonstration 1: a shared river in a drying climate



Top: one river line labelled the Murray–Darling rivers with four competing needs attached: farms (Australia’s food bowl), towns and cities (about 2.4 million people), industry, and the environment (rivers and wetlands need water to stay healthy too). Bottom: bar chart of cool-season rainfall change, south-west Australia down 16% (April–October, since 1970) and south-east Australia down 9% (April–October, since 1994)

Source: Murray–Darling Basin Authority, about the Basin (area, population, food bowl, wetlands), retrieved 25 August 2026.

Source: Bureau of Meteorology and CSIRO, State of the Climate 2024 (temperature and cool-season rainfall change), checked 25 August 2026.

Step 1 — Sort the evidence. The Basin covers about one million square kilometres and is home to about 2.4 million people; it grows a large share of Australia’s food and holds wetlands of world importance. At the same time, cool-season rain has fallen by about 9% since 1994 in the south-east (and 16% since 1970 in the south-west), and the land has warmed by about 1.5 °C since 1910.

Step 2 — Look for patterns and links. This is an **interconnection** pattern: the same water is wanted by farms, towns, industry and the environment, and what one user takes is lost to the others. It is also a **change** pattern: the climate is drying, so there is less water to share than there used to be.

Step 3 — First conclusion (through interconnection and environment). The evidence shows the Basin’s water is one connected system wanted by many users in a drying climate, so taking more water for farms leaves less for rivers, wetlands and towns.

Step 4 — Test it. Opposing evidence: farms can and do use less water per crop (drip irrigation, recycling, changing crops), and some regions still get good rain in other seasons. So the first conclusion is too simple — it treats farm water use as fixed when it can change.

Step 5 — Tested conclusion. *Because the Basin is one connected system in a drying climate, every extra use of water has a cost somewhere else; but the size of that cost depends on choices — how carefully farms use water, and how much water governments set aside for the environment.*

Step 6 — The ethics. Now the value question: *should farms be asked to use less river water so the rivers stay healthy?* Before you answer, steelman both sides.

Debate: should farms use less river water so rivers stay healthy?

Side A — Yes, rivers need the water

- Rivers and wetlands are living systems; if they dry out, fish, birds and people all lose them.
- What is taken higher up the river is lost lower down — the basin is one connected system.
- In a drying climate there is less water to go around, so everyone must use less, farms included.

Side B — Not without helping farms

- Farms feed the country and give country towns their jobs; taking their water away hurts real families.
- Many farms already use water carefully with drip irrigation and recycling.
- The fairest fix is to help farms change, not to simply cut them off.

What both sides agree on:

water is running short, so it must be shared carefully — the argument is about how to share it fairly.

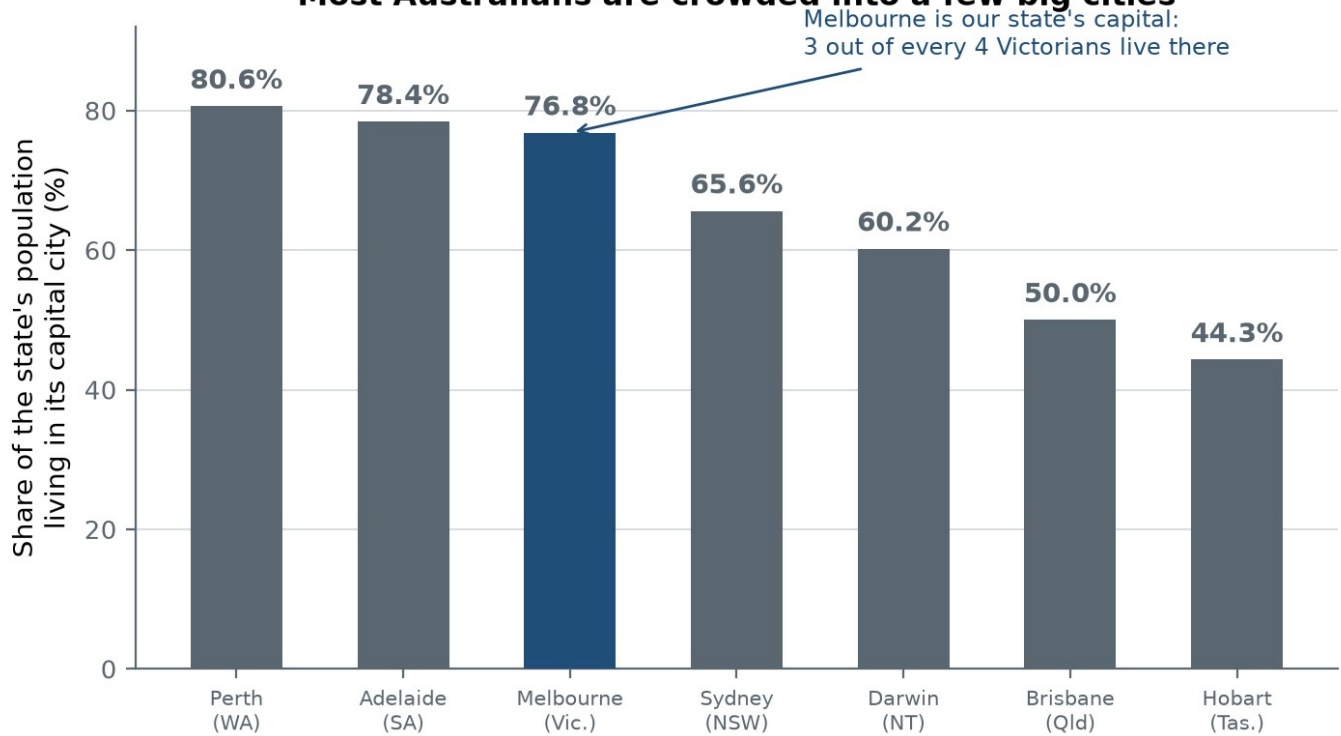
Two cards steelmanning the debate. Side A, yes, rivers need the water: rivers and wetlands are living systems; what is taken higher up the river is lost lower down; in a drying climate everyone must use less. Side B, not without helping farms: farms feed the country and employ country towns; many farms already use water carefully; the fairest fix is to help farms change, not simply cut them off. A footer bar shows what both sides agree on: water is running short and must be shared carefully

Now run the tools. **Define fair:** if “fair” means *based on need*, rivers and wetlands have a strong claim — they cannot drill a bore or buy water; if “fair” means *based on what people have built up*, farms that invested for generations have a strong claim. **Everyone test:** could we accept everyone taking as much water as they like because “one user makes no difference”? No — if everyone did it, the system dies; so limits on any one user can be right. Notice how the tools do not give you *the* answer. They make your reasons clear enough to be judged.

Worked demonstration 2 — Where Australians live: is the crowd into the capitals a problem?

The issue. Most Australians live in a small number of big coastal cities. Is that simply how things are, or is it something governments should try to change?

Most Australians are crowded into a few big cities



Across Australia, about 73% of people live in a major city (ABS, Remoteness Structure, 2025).

Bar chart of the share of each state's population living in its capital city: Perth 80.6%, Adelaide 78.4%, Melbourne 76.8% (highlighted), Sydney 65.6%, Darwin 60.2%, Brisbane 50.0%, Hobart 44.3%; a note adds that across Australia about 73% of people live in a major city

Source: Australian Bureau of Statistics, *Regional Population, 2025* — capital-city share of state population by Greater Capital City Statistical Area, and *Remoteness Structure* share in major cities; retrieved 25 August 2026.

Step 1 — Sort the evidence. In most states, well over half the population lives in the capital: Perth 80.6%, Adelaide 78.4%, Melbourne 76.8%. Across Australia, about 73% of people live in a major city.

Step 2 — Patterns and links. A **space** pattern: people are concentrated in a few coastal points, leaving the rest of the country thinly settled. A **change** pattern: this concentration has grown over time, as jobs and services followed people (and people followed jobs and services).

Step 3 — First conclusion (through space and change). *The evidence shows Australians are highly concentrated in capital cities and that concentration has grown, so services such as hospitals, specialist doctors and big employers are crowded into the capitals too.*

Step 4 — Test it. Opposing evidence: concentration is not only a problem. Cities make expensive services cheaper to run because so many users are close together; many people *choose* city life for study, work and community; and the chart shows real variety — Hobart (44.3%) and Brisbane (50.0%) are far less concentrated than Perth. So the conclusion must not treat concentration as purely bad or the same everywhere.

Step 5 — Tested conclusion. *Australia's population and services are concentrated in the capitals more than in most countries, which makes city services efficient but leaves people in smaller towns and rural areas with longer trips and thinner choices; how strong that gap is varies from state to state, so it is a pattern to manage, not a simple problem.*

Step 6 — The ethics. Is it fair that specialist services cluster in the capitals? **Define fair:** “the same for everyone” would put a specialist hospital in every small town, where it may not get enough patients to keep its skills sharp; “based on need” says people with the same illness deserve the same chance of good care wherever they live. **Everyone test** (applied to a rule): a rule that says “people outside the capital can wait longer for care” would not be accepted if everyone — including city voters — had to live under it. Again, the tools do not pick your side for you. They force your meaning of fair into the open, where it can be weighed.

Practice — scaffolded

- Q1.** In your own words, give two differences between an opinion and an evidence-based conclusion (see the first figure in section 2).
- Q2.** Look at the four lenses in section 3. Choose the best lens for each conclusion and say why: (a) “Hobart’s share of Tasmania’s population (44.3%) is much smaller than Perth’s share of Western Australia’s (80.6%), so ...”; (b) “Cool-season rain in the south-east has fallen by about 9% since 1994, so ...”; (c) “What one user takes from a river is lost to the next user, so ...”.
- Q3.** A student writes: “I think Melbourne is too big, so the government should stop it growing.” Using the five steps in section 4, name **two** things missing from this conclusion.
- Q4.** In the testing model of section 5: (a) what was the first conclusion? (b) name one piece of evidence that pointed another way; (c) how did the tested conclusion change?
- Q5.** Sort these impacts of a drying climate into people, places and environments: (i) native fish lose their homes; (ii) food and water prices rise; (iii) country towns grow around reliable water; (iv) farm jobs are at risk in dry years; (v) more bushfire danger; (vi) dams and reservoirs fall.
- Q6.** During water restrictions, a person says: “It is fine for me to water my garden at midday — one garden makes no difference.” Apply Kant’s everyone test to this claim. Does the claim pass the test? Why or why not?
- Q7.** Read the bottom chart of the Worked demonstration 1 figure. (a) Which region shows the larger fall in cool-season rain? (b) Give one reason this matters for farms; (c) give one reason it matters for the environment.
- Q8.** Read the Worked demonstration 2 chart. (a) Which capital holds the largest share of its state’s people? (b) Which holds the smallest? (c) What does Melbourne’s 76.8% mean in plain words?
-

Practice — unscaffolded

- Q9.** Using the Worked demonstration 1 evidence, write your own first conclusion organised through **interconnection**, then find one piece of opposing evidence and write a tested conclusion.
- Q10.** Using the Worked demonstration 2 evidence, write an evidence-based conclusion organised through **space and change**. Remember the sentence shape “The evidence shows ... so ...”, and name your source.
- Q11.** Debate: “*It is fair that specialist hospitals and big employers cluster in the capital city.*” Steelman both sides (two strong points each), then give your own judgement and say which meaning of “fair” it rests on.
- Q12.** Choose **one** impact on people, **one** on places and **one** on environments from section 6. Explain how they are connected to each other, and say which of the three you think should be dealt with first, giving your reasons.
-

Extended response

Q13. “In a drying climate, the environment should always get the river’s water first.” Do you agree? Write an evidence-based response of about 200–250 words that:

- draws a conclusion organised through at least **two** of the four concepts;
- uses evidence from this section and **names its sources** (Bureau of Meteorology/CSIRO; Murray–Darling Basin Authority);
- tests your conclusion against at least **one** piece of opposing evidence;
- considers the ethical values involved, stating clearly what **you** mean by “fair”.

Tip: you will not be marked on which side you choose. You will be marked on whether your conclusion follows from your evidence, whether you faced the other side’s evidence honestly, and whether your meaning of fair was out in the open.

Teaching notes (for the teacher)

This section delivers VC2HG8S05 on its own (one content description per section). The six elaborations VC2HG8S05.E01–.E06 are drawn on as illustrations only — the teaching sequence is conceptual (conclusion vs opinion → concept lenses → construction steps → testing → impacts → ethics → two worked demonstrations), not a walk through E01–E06. Per the skills design of this chapter, the skills of Chapters 1–4 supply the knowledge base: Worked demonstration 1 reasons over *Water in the world* content (Murray–Darling Basin, water scarcity, climate data) and Worked demonstration 2 reasons over the growth of cities, population distribution and liveability content from Chapters 2 and 4. This section teaches concluding and ethical consideration only; proposing action strategies (VC2HG8S06) and communicating findings (VC2HG8S07) are owned by sections 6B and 6C, so conclusions here are only lightly pointed toward later action.

Ethics pedagogy follows the series’ contested-terms policy: *fair/fairness* is defined at first use as contested, the word-kinds table (equal / need / built-up share) makes the contest explicit, both sides of each debate are steelmanned, and the “everyone test” is the school-friendly form of Kant’s universalisability principle, attributed to Immanuel Kant, *Groundwork of the Metaphysics of Morals* (1785). Mark reasoning, evidence use and honesty about limits — never the side a student lands on. All real-world data carry source lines retrieved or checked 25 August 2026 (ABS Regional Population 2025; BOM/CSIRO State of the Climate 2024; MDBA). In line with the series content policy, no Aboriginal and Torres Strait Islander content is included; First Nations material on the MDBA site was deliberately not drawn upon.

Glossary

Conclusion — a judgement reached by reasoning from evidence, not just a view you hold. **Evidence** — the data, maps, observations and sourced information a conclusion is built on. **Evidence-based** — built on evidence that is named and can be checked by others. **Ethical values** — ideas about what is right and fair that guide our judgements. **Fairness** — a contested word; common meanings include equal shares, shares based on need, and shares based on what people have built up. **Contested** — used by different people to mean different things, so the meaning must be stated before arguing. **Lens (organising idea)** — a concept (space, change, interconnection or environment) used to shape and organise a conclusion. **Space** — where things are, how space is used, shared or left empty. **Change** — what is different over time, and what is causing the difference. **Interconnection** — the links between people, places and environments, so that what happens in one affects the others. **Environment** — the natural world: rivers, soils, plants, animals, and how they are affected. **Impact** — an effect an issue has on people, places or environments. **Perspective** — a particular way of seeing an issue, shaped by a person’s position and values. **Steelman** — to put a side of a debate in its strongest, kindest form before judging it (the opposite of attacking a weak version). **Everyone test** — “would it still work if everyone did this?”, from Immanuel Kant (1785); a check for double standards. **Source** — where information comes from; naming it lets others test your conclusion.

Strategies for action: weighing factors, explaining potential impacts and developing actions

Curriculum focus — Victorian Curriculum 2.0, Geography, Levels 7 and 8, strand *Geographical Skills*, sub-strand *Concluding and decision-making*. Content description VC2HG8S06. Elaborations drawn on: VC2HG8S06.E01 (weighing impacts against criteria and proposing actions), VC2HG8S06.E02 (a plan for managing a chosen location), VC2HG8S06.E03 (individual action: water footprint, transport choices, reducing landfill and toxic e-waste, shrinking the urban footprint), VC2HG8S06.E04 (collective action: school water-saving rules, the ecopolis idea, community awareness of human-induced change at the Great Barrier Reef and Uluru, food growing in and on the edge of cities), VC2HG8S06.E05 (evaluating effectiveness against environmental, economic and social factors), VC2HG8S06.E06 (how personal values and attitudes shape explanations). Working material comes from Chapters 1–4, as the skills strand requires.

In this section

A geographical inquiry does not end at a conclusion. Once you have worked out what is happening and why (sections 5A to 6A), the next question a geographer asks is: **what should be done about it?** That is the work of this section.

In this section you will learn:

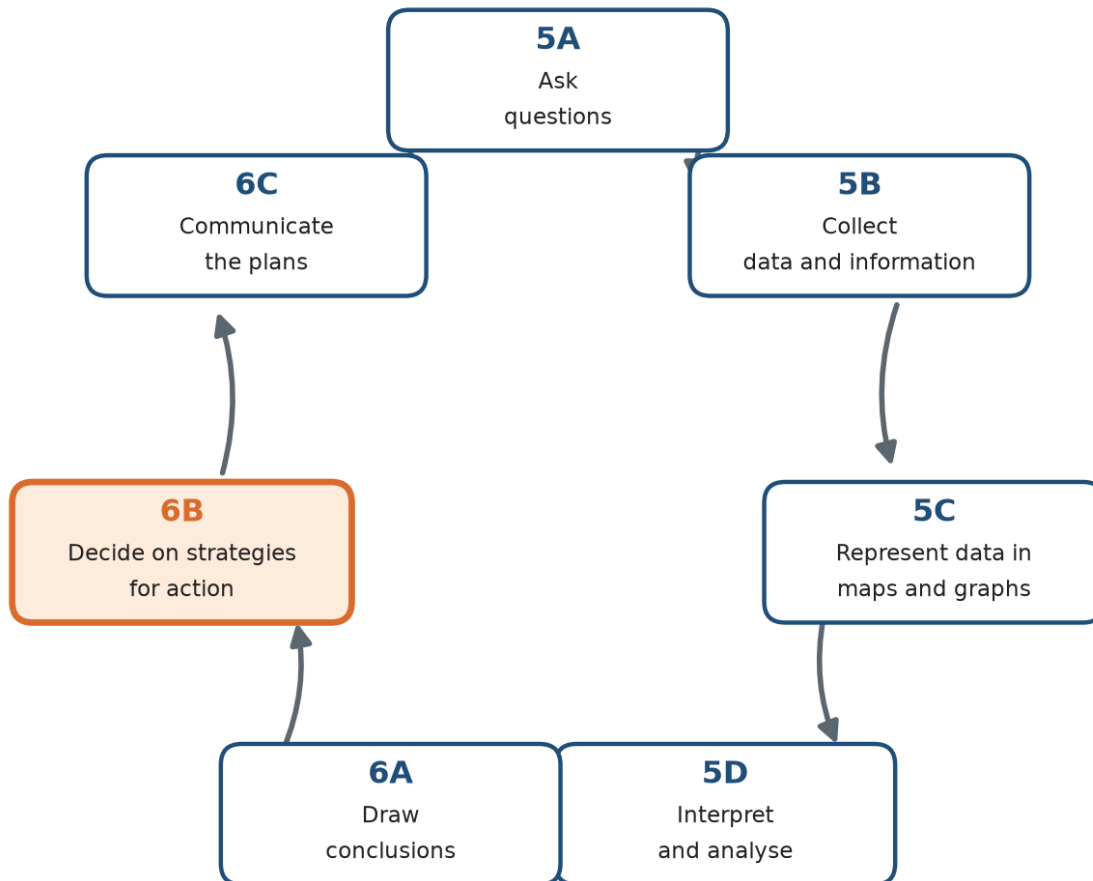
- what a **strategy for action** is, and where deciding on one sits in the inquiry cycle;
- the three tests every strategy is weighed against — **environmental**, **economic** and **social** — plus “other factors”;
- how to explain the **potential impacts** of an action, including the ones nobody planned for;
- the difference between **individual action** and **collective action**, with real Australian examples;
- how to develop **appropriate actions** by writing a simple **management plan**;
- how to **evaluate** whether a strategy works, and what **sustainability** adds to that judgement;
- how people’s **values** shape the way they explain and judge the same issue.

Key words to learn: strategy for action, factors (environmental, economic, social), potential impacts, intended and unintended impacts, individual action, collective action, management plan, evaluate, effectiveness, sustainability, values, water footprint, urban footprint, e-waste, landfill, peri-urban.

1. Where this section sits in the inquiry cycle

Every skill in this book is one stage of the same cycle: ask questions (5A), collect information and data (5B), represent it in maps, graphs and tables (5C), interpret it (5D), draw conclusions (6A) — and then the two stages this chapter closes with: decide on strategies for action (6B, this section) and communicate what you found (6C).

The geographical inquiry cycle



This section is the orange step: deciding what to do about it

Ring diagram of the seven-stage geographical inquiry cycle: ask questions (5A), collect data (5B), represent data (5C), interpret data (5D), draw conclusions (6A), decide on strategies for action (6B, highlighted in orange) and communicate findings (6C)

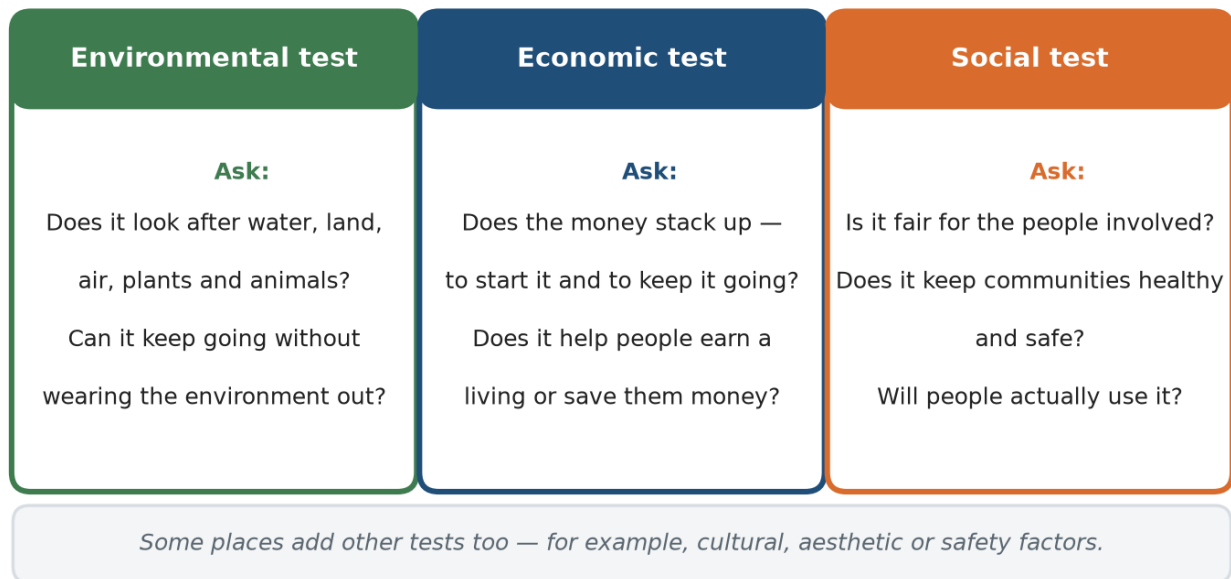
Deciding on a strategy for action is where geography becomes useful. A conclusion tells you what is happening; a strategy for action is what you choose to do about it. And because actions change places and environments, every strategy has to be checked for its impacts before it is put to work — that checking is what sections 2, 3 and 7 teach.

2. What is a strategy for action? The three tests

A **strategy for action** is a plan that people choose to deal with a geographical issue. The issue might be big (coral bleaching on the Great Barrier Reef) or local (wasted water at your school). The strategy might be something one person does or something a whole country does.

The content description says a strategy is chosen by weighing factors — environmental, economic, social, or others. **Factors** are the different sides of an issue that we weigh up. Geographers group them into three tests, with a fourth catch-all for anything left over.

The three tests for judging a strategy



Three-panel diagram of the three tests: the environmental test asks “what happens to nature — water, land, air, plants and animals?”, the economic test asks “what does it cost, and what happens to jobs and money?”, and the social test asks “what happens to people’s lives, health and fairness?”, with a footnote that other factors such as cultural and political ones can also matter

- The **environmental factor** is the nature side: what happens to water, land, air, plants and animals.
- The **economic factor** is the money side: what something costs, who pays, and what happens to jobs and businesses.
- The **social factor** is the people side: what happens to people’s lives, health, safety and fairness, and to how liveable a place is.
- **Other factors** catch the rest — cultural and political factors, for example. A strategy might be cheap and green but still a poor choice if it is unfair or if nobody will accept it.

Running the three tests does not mean every strategy must pass all three perfectly. It means you have looked at the issue from every side before you choose, and you can explain why your choice is the better one.

3. Explaining potential impacts: the impact chain

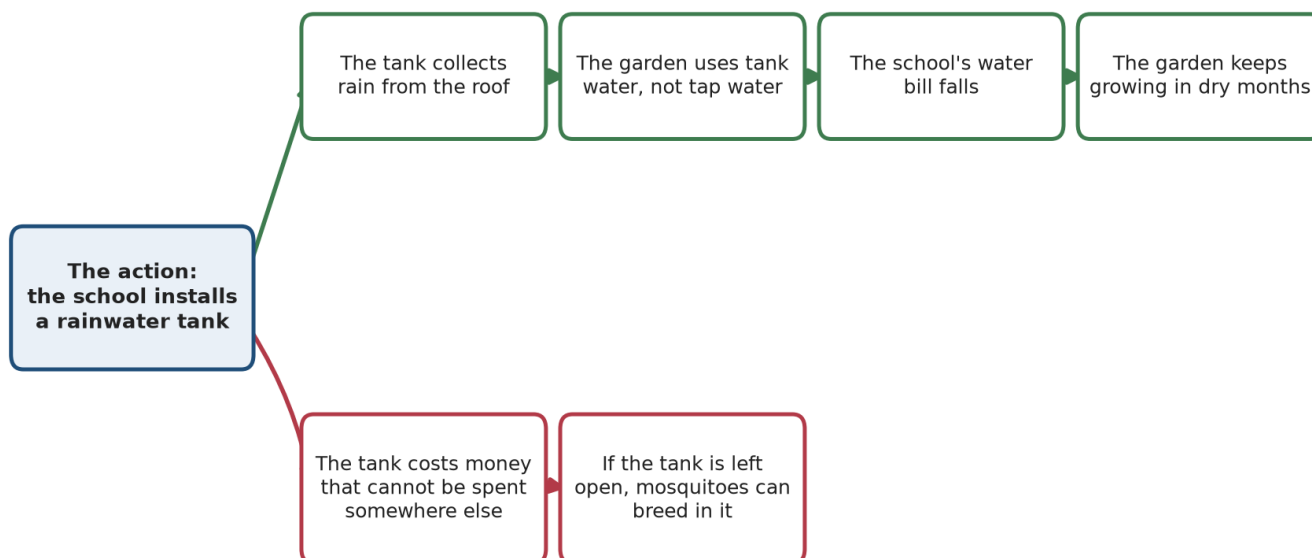
The **potential impacts** of an action are the changes that *could* happen if the action goes ahead. “Potential” means “could be” — we are explaining what we expect, not yet what we measured.

Impacts come in two kinds. **Intended impacts** are the changes we plan for — the reason we chose the action. **Unintended impacts** are the changes we did not plan for, good or bad. A careful geographer looks for both, because unintended impacts are easiest to deal with when they are spotted early.

One clear way to explain impacts is an **impact chain**: start with the action, then follow each change to the change it causes next, and tag every link with the test it belongs to (environmental, economic or social).

An impact chain: every action sets off a train of impacts

Intended impacts (the ones we plan for)



Unintended impacts (the ones we did not plan for — spot them early)

Impact chain diagram: the action “the school installs a rainwater tank” branches into a green chain of intended impacts (the tank collects rain from the roof; the garden uses tank water, not tap water; the school’s water bill falls; the garden keeps growing in dry months) and a red chain of unintended impacts (the tank costs money that cannot be spent somewhere else; if the tank is left open, mosquitoes can breed in it)

Read the chain across. The intended impacts touch all three tests: the garden and the water cycle (environmental), the smaller bill (economic), and a school grounds that stays green in dry months, which people enjoy (social). The unintended impacts touch the economic test (money spent here is not spent there) and a health-style social and environmental risk (an open tank breeds mosquitoes — which is why real tanks are sealed).

Notice the habit this builds: never answer “what does this action do?” with one impact. An action sets off a *train* of impacts across the three tests, and explaining that train is exactly what the achievement standard means by “explaining potential impacts”.

Worked demonstration 1 — Building an impact chain and running the three tests

Let us build the reasoning step by step for the action in the impact chain figure: *the school installs a rainwater tank*.

Step 1 — Name the action and the issue. The issue: the school garden is watered with tap water, and in dry months the water bill is high while the garden still suffers. The action: fit a rainwater tank to the roof of one building.

Step 2 — Follow the intended impacts. Roof rain is collected (environmental: tap water saved); the garden is watered from the tank (economic: the bill falls); the grounds stay green in dry months (social: a pleasant place to be).

Step 3 — Hunt the unintended impacts. The tank costs money that cannot be spent on something else (economic). An open or badly sealed tank breeds mosquitoes (social and environmental). A tank that is never topped up in a long dry spell will not keep the garden alive by itself (environmental — a limit to be honest about).

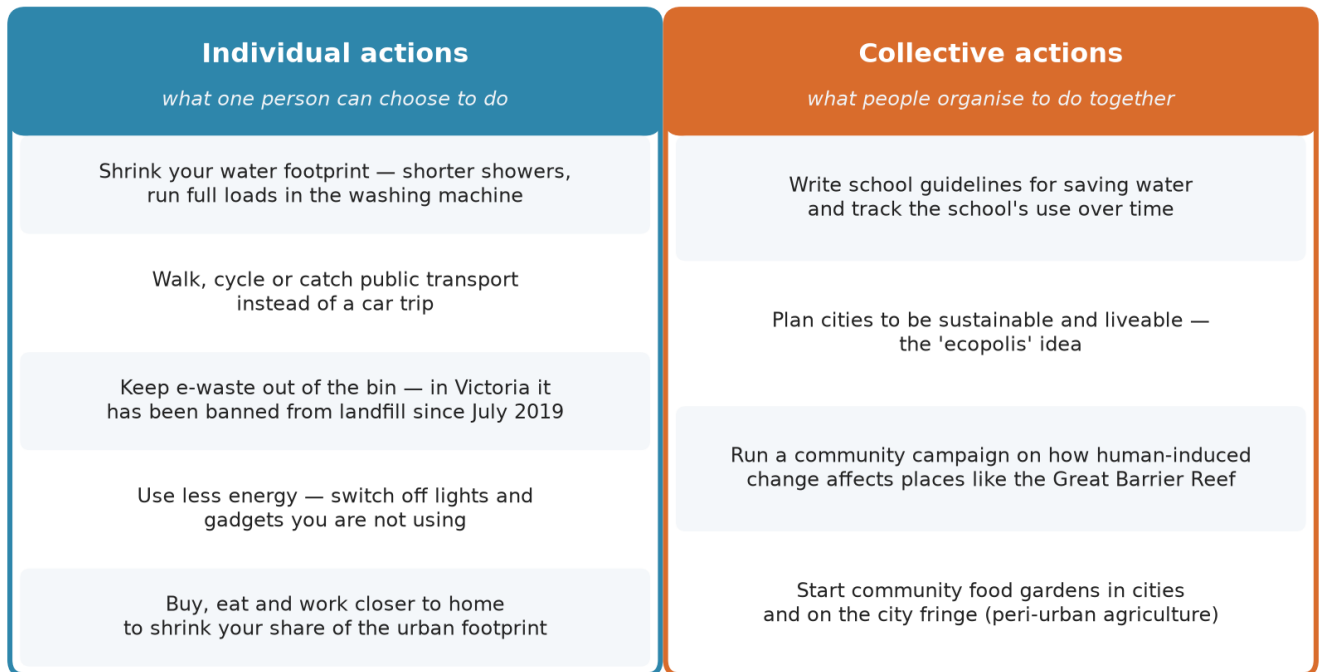
Step 4 — Run the three tests and judge. Environmental: strong, tap water is saved and the garden survives dry months. Economic: fair to strong, there is a cost up front but the bill falls every year after. Social: strong if the tank is sealed and looked after, weak if it is not. **Judgement:** an appropriate action *provided* the tank is sealed, maintained and treated as one part of a water-saving plan, not the whole plan.

4. Individual and collective action

Actions split into two kinds, by who does them.

Individual action is what one person or one household chooses to do. **Collective action** is what people do together — a class, a school, a club, a council, a community, a state or a whole country. Most big issues need both: individual choices add up, and collective rules make the good choice the easy choice.

Two scales of action



Two-panel diagram contrasting individual and collective action. Individual panel examples: tracking your water footprint; walking, cycling or taking public transport; keeping e-waste out of the bin; buying food made nearby and using less energy at home. Collective panel examples: school water-saving rules; planning an ecopolis; raising community awareness of human-caused change at the Great Barrier Reef and Uluru; growing food in and on the edge of cities

The four individual examples are worth a closer look, because each one names a geography idea:

- **Water footprint.** Your **water footprint** is the total water your day uses — the water from the shower and the tap, plus the water hidden inside the things you buy, like the water that went into growing your food. Tracking it shows where one person can cut the most.
- **Transport choices.** Walking, cycling or catching public transport for short trips cuts the fuel, air pollution and traffic that one car trip adds.
- **Reducing landfill, especially toxic e-waste.** **Landfill** is a tip — a place where waste is buried in the ground. **E-waste** is anything with a plug, a battery or a cord that is thrown away: old phones, chargers, keyboards, cables. Some e-waste carries toxic materials, so it does not belong in landfill, and most of what is inside it can be recovered and used again.
- **Shrinking the urban footprint.** Your **urban footprint** is the load your city life puts on resources — the energy, water, land and waste behind your day. Using less energy at home and eating, working and buying locally all shrink it, because goods that travel a short way carry a smaller load.

The collective examples work the same way but at group scale:

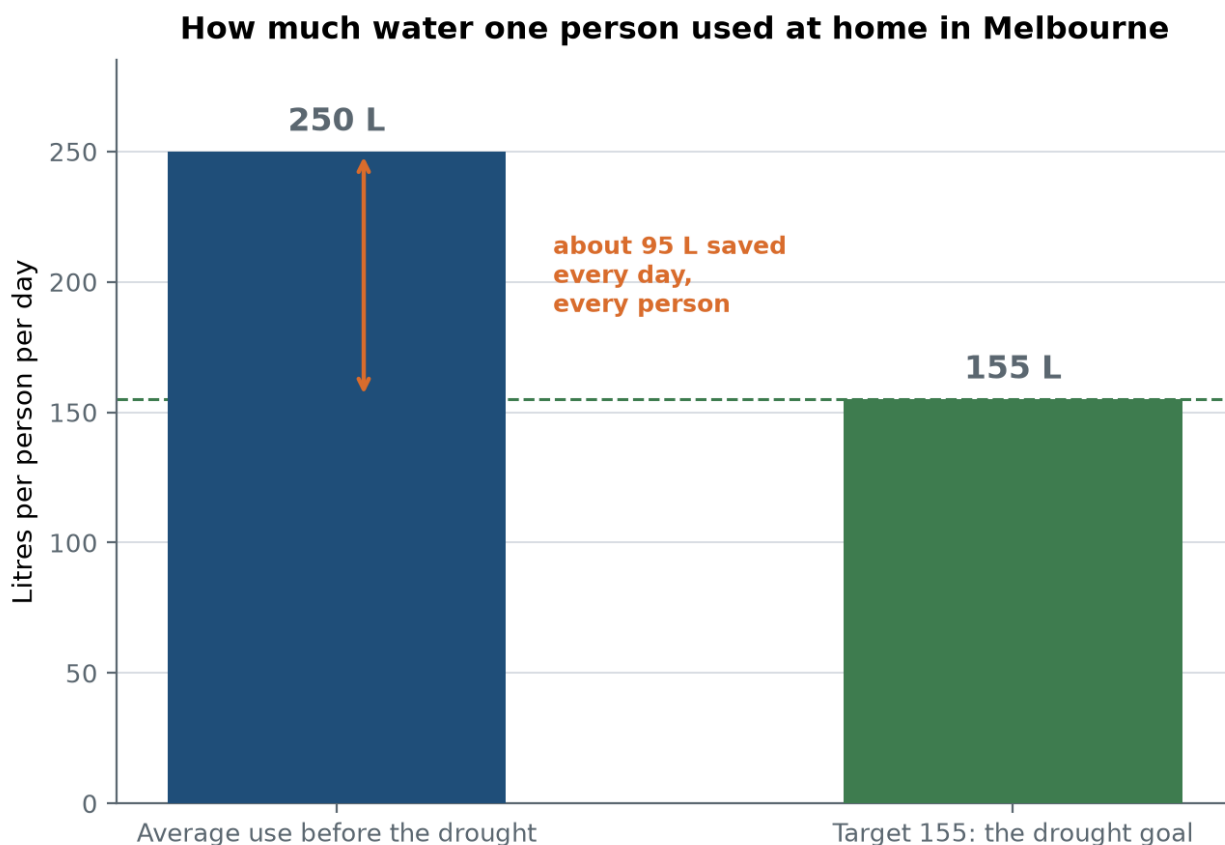
- A **school water-conserving guide** — a short agreed set of rules the whole school follows, like shorter shower campaigns, reporting dripping taps, and watering gardens at cool times of day.

- Planning an **ecopolis** — a city designed to keep its air, water and green space healthy and to produce very little waste, so that the city’s whole footprint shrinks.
- **Raising community awareness of human-caused change** at places such as the **Great Barrier Reef** and **Uluru** — telling people what human activity is doing to these places so that more people choose to reduce the pressure on them. (Here Uluru and the Reef are studied as examples of *environmental change*, the same way Chapter 3 studies them as landforms.)
- **Urban and peri-urban agriculture** — growing food inside cities (**urban**) and on the fringe where the built-up area meets the countryside (**peri-urban**). Food grown close to the people who eat it travels less, costs less to move, and turns spare land green and useful.

5. Three Australian cases in data

Strategies are easier to judge when they are attached to real places and real numbers. Three Australian cases carry the rest of this section.

Case 1 — Melbourne’s Target 155 (water). During the long Millennium Drought of the late 1990s and 2000s, Melbourne’s water storages fell so low that the city ran a public campaign called **Target 155**: keep home water use to 155 litres per person per day, down from the pre-drought average of about 250 litres. It was a strategy that joined collective action (the campaign, water rules, fixed supply works) with individual action (shorter showers, full laundry loads, garden choices) — and it worked.

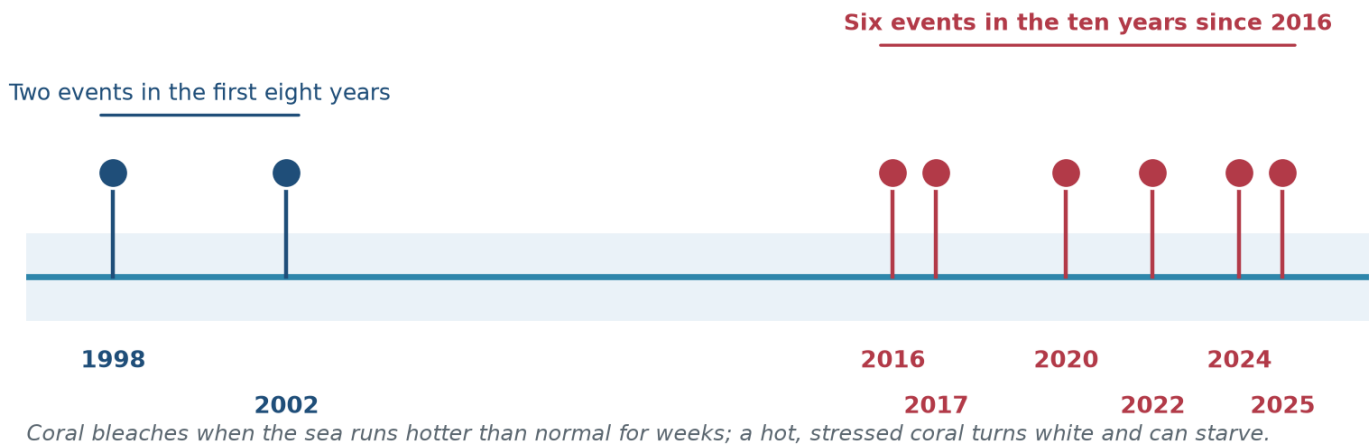


Bar chart of home water use in Melbourne: about 250 litres per person per day before the Millennium Drought, and the Target 155 goal of 155 litres per person per day during it — a saving of about 95 litres per person per day

Source: Melbourne Water, Target 155 and Melbourne water-use history, retrieved 25 August 2026.

Case 2 — The Great Barrier Reef (environmental change). Coral **bleaching** happens when the sea stays hotter than normal for weeks: stressed coral turns white and can starve. The Great Barrier Reef Marine Park Authority records eight mass bleaching events since 1998 — and six of them in the ten years since 2016. The trend is the geographical fact: heat-driven bleaching is happening more often.

Eight mass bleaching events on the Great Barrier Reef, 1998-2025



Timeline of the Great Barrier Reef showing eight mass coral bleaching events: 1998, 2002, 2016, 2017, 2020, 2022, 2024 and 2025, grouped as two events in the first eight years and six events in the ten years since 2016

Source: Great Barrier Reef Marine Park Authority, climate-change and reef-threats pages, retrieved 25 August 2026.

Raising community awareness of this trend is a collective action in its own right: people who understand the trend are more likely to support actions that cut the pressures humans add to the Reef — from water quality near the coast to the carbon emissions that drive the heat.

Case 3 — Victoria's e-waste ban (landfill). From **1 July 2019**, Victoria became the first Australian state to ban e-waste from landfill. The national size of the problem is large — Australians throw away more than half a million tonnes of e-waste a year — and so is the opportunity: up to 90% of the materials inside old electronics can be recovered and used again.

Why keeping e-waste out of landfill is a strategy for action

E-waste is anything with a plug, a battery or a cord that is thrown away.



Three-tile diagram on e-waste: the rule (from 1 July 2019 Victoria banned e-waste from landfill, the first Australian state to do so), the problem (Australians throw away more than 500,000 tonnes of e-waste a year), and the opportunity (up to 90% of the materials inside old electronics can be recovered and used again)

Source: Environment Protection Authority Victoria (e-waste ban); Australian Government Department of Climate Change, Energy, the Environment and Water (national e-waste tonnage); Sustainability Victoria (materials recovery); retrieved 25 August 2026.

A ban is a collective action at state scale; taking your old phone to a collection point instead of the bin is the individual action that makes it work. The two levels need each other.

6. Developing appropriate actions: the management plan

An **appropriate** action is one that fits the issue, can actually be done, is fair, and can be kept up over time. The cleanest way to develop one is a **management plan** — a short, organised plan that says what the issue is, what the goal is, who will do what and when, and how you will know it worked.

Model text: a water-saving management plan for a school

Part of the plan	What it says
Issue	The school's tap-water use is high, and in dry years the town's water storages fall.
Goal	Cut the school's tap-water use by 20% by the end of Term 4 (measured against last year's bills).
Individual actions	Every student turns taps off firmly and reports leaks. Staff run dishwashers and washing machines only with full loads.
Collective actions	Water the school garden from the rainwater tank, early morning or late afternoon. Fit water-efficient nozzles on taps (with permission). Run a whole-school water-saving week.
Who is responsible	Student environment monitors, the facilities manager, and each class for its own rooms.
Timing	Start Term 1. Fit the nozzles in the Term 2 holidays. Keep the habits going all year.
Success measures	Water bills fall by 20%. Monthly meter readings (taken by the monitors) show use falling.
Review date	Check the meter readings and the bill at the end of Term 2 and change the plan if it is not working.

Table of a model management plan for saving water at a school, with rows for the issue, the goal, individual actions, collective actions, who is responsible, timing, success measures and a review date

Read the model plan against the three tests. The goal (“cut the school’s water use by 10% in one year”) is measurable, so later you can evaluate it. The actions mix individual and collective kinds, because a plan that relies on only one kind usually fails. The “who” and “when” rows are what turn a wish into an action: a strategy with nobody’s name on it does not happen. The success measures tell you, in numbers you can collect (a water bill, a survey, a count), whether the impacts you intended are the impacts you got. And the review date closes the loop — a management plan is checked and updated, not written and forgotten.

The same shape works for a chosen location beyond the school gate: a street, a park, a local creek, a beach. The location changes; the rows do not.

7. Evaluating effectiveness: does the strategy work?

To **evaluate** a strategy means to judge how well it works, using evidence, against the tests you chose. Two ideas do the heavy lifting.

Effectiveness asks: does the strategy actually do what it was meant to do? Target 155 was effective — home water use in Melbourne fell from about 250 to 155 litres per person per day. A strategy that sounds good but changes nothing is not effective, however popular it is.

Sustainability asks: can it keep going without using places and resources up? The idea has a famous source: in 1987 the World Commission on Environment and Development (the Brundtland Commission) described sustainable development as meeting the needs of people today without damaging the chances of future generations to meet their own needs. For this section, a strategy is **sustainable** when it can be kept up for a long time without harming people or the environment.

A simple **evaluation table** lines up each strategy against each test so the judgement is visible and fair.

Evaluating three water-saving strategies against the three tests

Strategy	Environmental test	Economic test	Social test	Overall
Water-efficient showerheads	Strong — cuts both water and energy use every shower	Strong — cheap to buy and fit; lowers water and power bills	Strong — easy to fit; no habits have to change	Best pick
Four-minute showers	Strong — big cuts to water and energy use	Strong — costs nothing	Fair — needs daily effort, hard to keep up all year	Good, but hard to sustain
A rainwater tank for the garden	Strong — saves tap water and keeps gardens alive in drought	Weak — expensive to buy and install	Fair — needs space, upkeep and a safe lid	Useful, but costly

Class evidence could include a water-bill check (economic), a litres-per-shower measure (environmental) and a student survey (social).

Table evaluating three water-saving strategies — water-efficient showerheads, four-minute showers, and a rainwater tank for the garden — against the environmental, economic and social tests, with an overall judgement for each: best pick; good but hard to sustain; useful but costly

Read the table the way a geographer would. All three strategies are strong on the environmental test — they all save water. The differences show up on the other tests: showerheads are cheap and need no change of habit (strong economic and social), four-minute showers cost nothing but need daily effort (strong economic, only fair social), and a rainwater tank saves tap water and keeps gardens alive in drought but is expensive to buy and fit (strong environmental, weak economic). The overall judgements follow from weighing the three tests, not from any single column.

That is the method VC2HG8S06.E05 is asking for: evaluate the effectiveness of each proposed action against environmental, economic and social factors — then choose, and say why.

Worked demonstration 2 — Evaluating and choosing between strategies

Use the evaluation table to reason to a choice.

Step 1 — Compare column by column. On the environmental test all three strategies are strong, so the environment alone cannot separate them. On the economic test, two are strong (showerheads cheap to buy and fit; four-minute showers free) and one is weak (the tank). On the social test, showerheads are strong (no habits to change), the tank is fair (it needs space and upkeep), and four-minute showers are only fair (daily effort is hard to keep up all year).

Step 2 — Weigh, then judge. For a school or a family that wants a result it can keep up, water-efficient showerheads win: strong on all three tests. Four-minute showers are a good free partner to them. The tank is worth adding later if the money is there, because it does something the shower strategies cannot — it keeps a garden alive through dry months on rain.

Step 3 — Check the judgement against values. Another class might rank the tank first, because it values a green garden and drought-proofing more than up-front cost. Both judgements can be well reasoned — the table makes the

evidence visible, and values decide the weighting. That is the point of 6A’s ethical-values work meeting 6B’s choosing.

Geographer’s conclusion: evaluate each strategy against the three tests, pick the mix that passes best overall, and say honestly which values shaped your weighting.

8. How values shape explanations

Values are the things a person thinks matter most. Two people can look at the same evidence, agree on every fact, and still explain and judge an issue in different ways — because they give the tests different weights. That is not a flaw in geography; it is part of what geography studies. VC2HG8S06.E06 asks you to reflect on how your own values and attitudes shape your explanations — of liveability, of competing water uses, of rebuilding older parts of our cities with more green open space.

Values and attitudes shape how we explain potential impacts

The proposal: the council adds a bike lane to the main street



One proposal, three different explanations of its impacts — each speaker's values shape what they expect to happen.

Diagram of three people considering the same proposal — “the council adds a bike lane to the main street” — with three thought bubbles: a shop owner worrying that losing a parking space may cost trade, a parent valuing a safer ride to school, and a bus driver wanting the lane kept clear so buses run on time

Look at how each view is reasoned. The shop owner is not “against the environment” — they are weighting the economic test, because a street that cannot trade is bad for the whole local area. The parent is weighting the social test: safety and liveability for kids. The bus driver is weighting the social and economic tests together: public transport that runs on time helps many people get to work. All three are using the same three tests as everyone else — the difference is the weighting.

This is why the best strategy explanations do two things: they show the evidence through the three tests, and they state the values doing the weighing. When you read a claim like “this strategy is obviously the right one”, ask: which test is being weighted, and by whom?

Practice — scaffolded

Q1. Define **strategy for action** in your own words.

Q2. Name the three tests from the three-tests figure and copy the “ask” question for each. Give one example of an “other factor”.

Q3. Use the impact chain figure. (a) List two intended impacts of the school rainwater tank and tag each with the test it belongs to. (b) List one unintended impact and tag it the same way.

Q4. Sort these four actions into individual or collective: (i) you take an old phone to a collection point; (ii) a state bans e-waste from landfill; (iii) you ride to school on a wet-day-free day; (iv) a school agrees a water-saving guide.

Q5. Use the Target 155 chart. (a) What was home water use per person per day before the drought? (b) What was the target? (c) How many litres per person per day is the saving?

Q6. Use the Reef bleaching timeline. (a) How many mass bleaching events are shown? (b) Compare the first eight years (1998–2005) with the ten years since 2016. (c) In one sentence, what does the trend suggest?

Q7. Use the e-waste figure. (a) From what date has e-waste been banned from landfill in Victoria? (b) What share of the materials inside old electronics can be recovered?

Q8. In the management plan table, which row names *who* does the work, which row says *when* it happens, and which row tells you *how you will know* it worked?

Practice — unscaffolded

Q9. Choose one individual action from section 4 (water footprint tracking, transport choices, e-waste care, or shrinking your urban footprint). Explain its potential impacts using all three tests, and name one unintended impact to watch for.

Q10. Your school wants to cut the waste it sends to landfill. Draft a management plan in the shape of the model table: a measurable goal, one individual action, one collective action, one success measure and a review date.

Q11. Use the evaluation table. Evaluate the four-minute-shower strategy against the three tests and give your own overall judgement. Say which test you weighted most heavily, and why.

Q12. Use the values figure. Explain why three people can look at the same bike lane and reach three different conclusions, even when they agree on every fact. Refer to the three tests in your answer.

Extended response

Q13. “One person alone cannot make a difference to a big environmental issue such as the Great Barrier Reef.” Do you agree? Write an evidence-based response of about 150–200 words using at least **two** figures from this section and **one** named Australian example (such as Target 155, the e-waste ban or the Reef bleaching record). Refer to your sources, and use the ideas of individual and collective action in your reasoning.

Tip: a strong response takes a clear position, uses the data as evidence (for example, the 95 litres saved per person per day under Target 155), and explains how individual and collective action connect.

Teaching notes (for the teacher)

This section delivers VC2HG8S06, the decision-making stage of the inquiry cycle (6B between 6A’s conclusions and 6C’s communication). Sequence: cycle placement → the three tests → impact chains (WD1 models the explaining the standard assesses) → individual/collective action → the three data cases → management plans → evaluation (WD2 models criteria-based choosing) → values. Per D11, all working material is drawn from Chapters 1–4: water (Target 155, Ch 1), liveability and values (bike lane, Ch 2), landforms and environmental change (Uluru and the Reef as

environmental-change examples, Ch 3), and cities and footprints (peri-urban agriculture, ecopolis, Ch 4). The section carries the band's Sustainability cross-curriculum priority links (VC2CCPSFT3 futures-thinking on .E03/.E04; VC2CCPSWV1 worldviews on .E06) — sustainability is defined with its Brundtland (WCED, 1987) source at first use. The Great Barrier Reef and Uluru appear strictly as human-induced environmental-change examples per the D5 place-name trap; no Aboriginal and Torres Strait Islander content is included, in line with the series content policy. Every real datum carries a source line (Melbourne Water; Great Barrier Reef Marine Park Authority; EPA Victoria; DCCEEV; Sustainability Victoria), all retrieved 25 August 2026; all figures are original diagrams computed from primitives. Vocabulary is held to the Yr7 ceiling; subject terms (strategy for action, factors, potential impacts, individual/collective action, management plan, evaluate, effectiveness, sustainability, values, water/urban footprint, e-waste, landfill, peri-urban, ecopolis, bleaching) and curriculum words (criteria, potential, evaluate) are defined or quoted at first use per WORD_LEVEL_POLICY exemptions 2–3.

Glossary

Strategy for action — a plan that people choose to deal with a geographical issue. **Factors** — the sides of an issue weighed up when choosing a strategy: environmental (nature), economic (money and jobs), social (people's lives and fairness), plus other factors such as cultural and political ones. **Criteria** — the tests a strategy is judged against; this section's three tests are criteria. **Potential impacts** — the changes that could happen if an action goes ahead. **Intended impacts** — the changes an action plans for. **Unintended impacts** — the changes an action did not plan for. **Impact chain** — a linked line of impacts, each causing the next, tagged with the test it belongs to. **Individual action** — what one person or one household chooses to do. **Collective action** — what people do together, from a class or school up to a council, state or country. **Water footprint** — the total water a person's day uses, including water hidden inside the things they buy. **Urban footprint** — the load a person's city life puts on resources: energy, water, land and waste. **E-waste** — anything with a plug, a battery or a cord that is thrown away. **Landfill** — a tip; a place where waste is buried in the ground. **Peri-urban** — the fringe of a city, where the built-up area meets the countryside. **Ecopolis** — a city designed to keep its air, water and green space healthy and produce very little waste. **Management plan** — a short organised plan naming the issue, the goal, who does what and when, the success measures and a review date. **Evaluate** — to judge how well something works, using evidence, against chosen tests. **Effectiveness** — whether a strategy actually does what it was meant to do. **Sustainability** — using places and resources so they stay healthy for future generations; a strategy that can be kept up without harm. **Values** — the things a person thinks matter most; different people give the three tests different weights. **Bleaching** — the whitening of coral when the sea stays hotter than normal for weeks; bleached coral can starve.

Presenting explanations and responses: knowledge, concepts, methods and named sources

Curriculum focus — VC2HG8S07. This section draws on elaborations .E01–.E06: the fieldwork report, the evidence-based explanation, the editorial that encourages action on a geographical issue, and the video documentary — each one built on real sources that are checked and named.

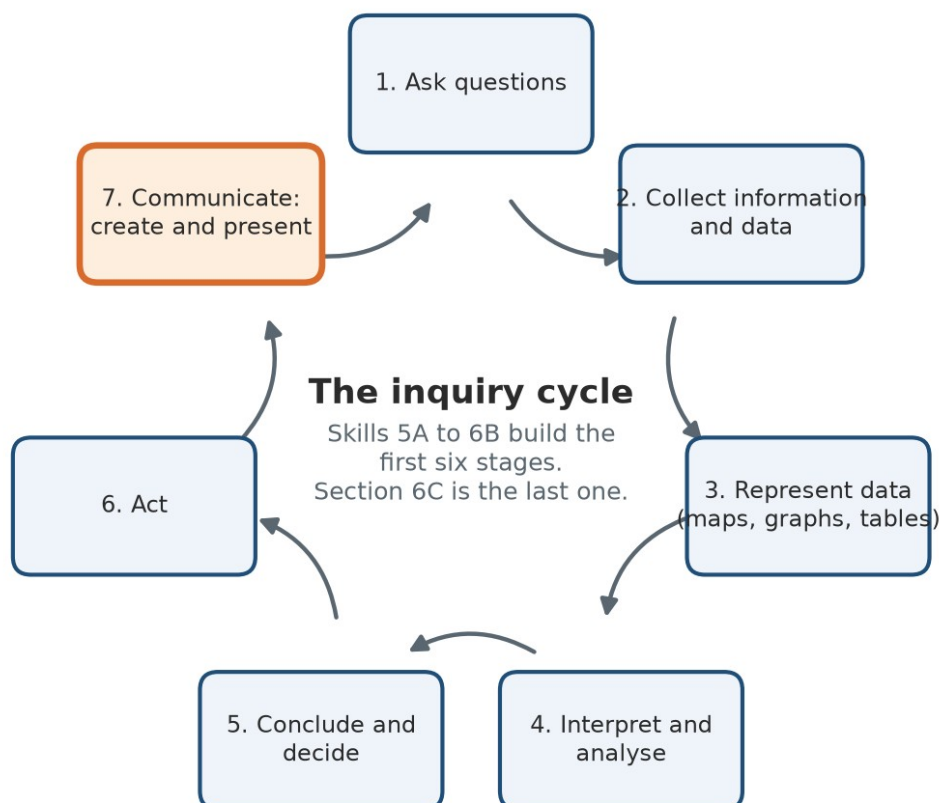
In this section

Every skills section in Chapters 5 and 6 has trained one stage of the geographical inquiry cycle. Section 5A taught you to ask good questions, 5B to collect information and data, 5C to represent data in maps, graphs and tables, 5D to interpret it, 6A to conclude, and 6B to act. This section is the last stage: **communicating**. It is also the book's exit standard — the piece of work that shows you can put everything together.

Every response in this section — a fieldwork report, an explanation, an editorial or a video documentary — is built from the same four ingredients: geographical **knowledge**, geographical **concepts**, geographical **methods**, and **sources** that are checked and named. You will learn a simple shape for each form, a way to check any source before you use it, and a way to name every fact, number or map idea you borrow. Then you will create and present a full referenced response of your own.

Key words to learn: claim, evidence, reasoning, source, reference list, in-text reference, audience, purpose, fieldwork report, editorial, documentary, hook, position, call to action.

Part 1 — Where this section sits in the inquiry cycle



A ring of seven boxes joined by arrows showing the inquiry cycle: ask questions, collect, represent, interpret, conclude, act, and communicate, with the communicate box highlighted in orange

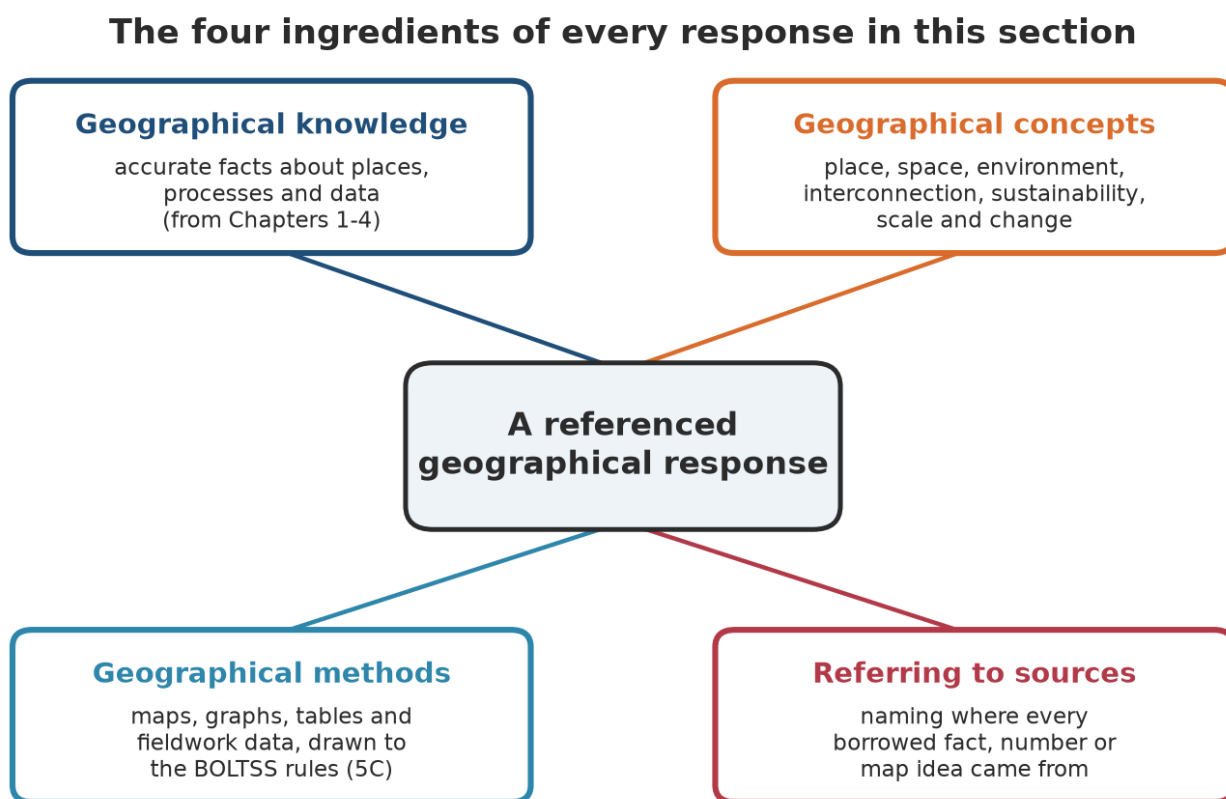
The inquiry cycle does not end when you understand something. A geographer also **creates and presents** what they found, so that other people can understand it and act on it. That last stage is what this section teaches, and it uses all six earlier stages as its raw material.

Notice what stage 7 has to lean on:

- you cannot present an answer you have not **concluded** (6A);
- you cannot conclude from data you have not **interpreted** (5D);
- you cannot interpret data you have not **represented** (5C) and **collected** (5B);
- and none of it starts without a sharp **question** (5A).

So a strong presentation is never just decoration. It is the visible tip of a well-run inquiry.

Part 2 — The four ingredients of every response



A hub-and-spoke diagram: a central box reading “A referenced geographical response” joined to four boxes: geographical knowledge, geographical concepts, geographical methods, and referring to sources

The content description for this section names four ingredients, and every task in this section uses all four:

1. **Geographical knowledge** — the accurate facts you learned in Chapters 1–4 about water, landforms, cities, liveability and how places change.
2. **Geographical concepts** — place, space, environment, interconnection, sustainability, scale and change. A concept works as an organising idea: it tells the reader *what to look for* in your facts.
3. **Geographical methods** — the maps, graphs, tables and fieldwork data you learned to collect (5B) and draw (5C), following the BOLTSS rules for maps.
4. **Referring to sources** — naming where every borrowed fact, number or map idea came from, in your text and in a reference list.

A paragraph with facts but no source naming is a story. A paragraph with a claim, evidence, a named source and reasoning is geography.

Part 3 — Checking sources and naming them

Before a fact goes into your work, its source has to pass four questions.

Four questions to ask before you use a source

1. Who made it?	An organisation that measures and counts for its job (like the Australian Bureau of Statistics or the Bureau of Meteorology) is stronger than a person selling something or guessing.
2. When was it made?	Data that changes (population, rainfall, dam levels) needs a recent date. Older sources can still be fine for facts that do not change much, like the height of a mountain.
3. What is it based on?	Measured numbers, surveys and repeated observations are stronger than feelings, opinions or guesses.
4. Do other sources agree?	If a second trusted source shows the same thing, you can use it with more confidence. If they disagree, say so.
Strong: Bureau of Meteorology rainfall records for a named station, 1970-2026 Weak: a post by a stranger on social media with no name, date or numbers	

Four numbered question boxes — Who made it? When was it made? What is it based on? Do other sources agree? — each with a short hint, above one green box showing a strong source and one red box showing a weak source

Naming sources — the two places every source appears

- **In your text (in-text reference):** the moment you borrow a fact or number, name the source in brackets. Example: *The driest year on record at Melbourne Airport was 1997, with 310.2 mm of rain (Bureau of Meteorology, 2026).*
- **In your reference list:** a list at the end of your work with one entry for every source you used, so a reader could find each one again.

Model reference list for this section's two data sources:

- Australian Bureau of Statistics (2025) *Regional population, 2024–25 financial year*, Canberra, retrieved 25 August 2026.
- Bureau of Meteorology (2026) *Climate statistics for Australian locations: Melbourne Airport (station 086282)*, Melbourne, retrieved 19 August 2026.

The rule is simple: **if you did not measure it or see it yourself, name it.** A named weak source is honest; an unnamed strong source still looks like a guess.

Part 4 — Choosing a form and shaping it

Different audiences and purposes call for different forms. The four forms used in this section are below; each has its own shape, but all four use the same four ingredients.

Four ways to create and present a geographical response

Form	Purpose	Audience	Shape
Fieldwork report	show what you set out to find, what you measured, and what you conclude	teacher, class, local community	written report with maps, graphs, photos and a reference list
Evidence-based explanation	explain a pattern or issue using data and research findings	anyone who wants to understand the issue	claim + evidence + reasoning, with maps and graphs
Editorial	persuade people to take appropriate action on a geographical issue	readers of a newspaper, magazine or school newsletter	short persuasive piece with a clear position and a call to action
Video documentary	inform people about an issue and suggest responses that sustain people and places	viewers: class, school assembly, community screening	short film: narration, footage, maps, data and interviews

A four-row table of Form, Purpose, Audience and Shape for the fieldwork report, the evidence-based explanation, the editorial and the video documentary

Form 1: the fieldwork report. This section closes on the same fieldwork you planned in 5B and carried out in the knowledge chapters: your measured, local data from any Victorian locality — a creek, a park, a shopping strip, a beach. The report has seven parts, and every part is a skill you have already trained.

Structure of a fieldwork report

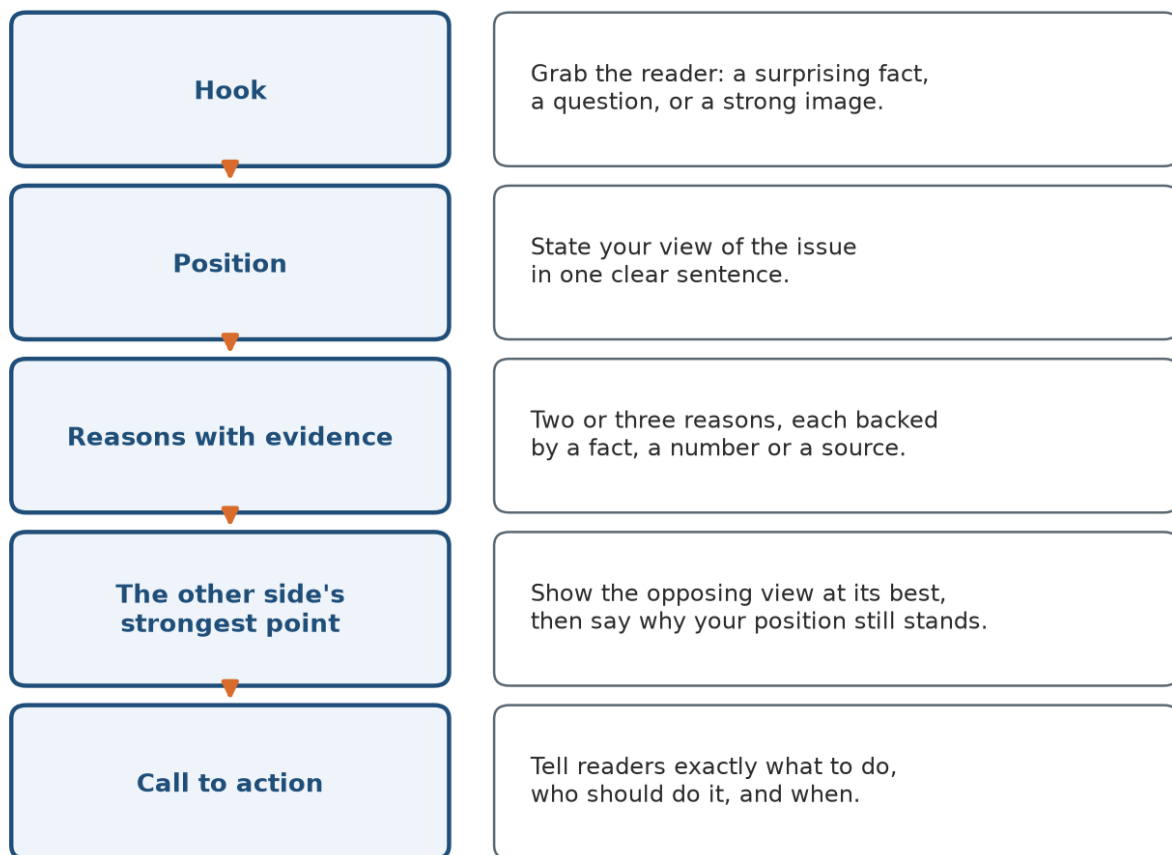
1. Title and question	What did you set out to find?	<i>question skills (5A)</i>
2. Background	What is already known about the place or issue?	<i>Chapters 1-4</i>
3. Method	What did you measure or observe, where, when and how?	<i>collecting (5B)</i>
4. Results	What did you find? Maps, graphs, photos and counts.	<i>representing (5C)</i>
5. Discussion	What do the results mean? Patterns and causes.	<i>interpreting (5D)</i>
6. Conclusion and action	Your answer to the question, and what to do next.	<i>concluding (6A), acting (6B)</i>
7. References	A list of every source you used.	<i>this section (6C)</i>

Seven stacked boxes listing the parts of a fieldwork report — title and question, background, method, results, discussion, conclusion and action, references — each paired with the skill section that taught it

Form 2: the evidence-based explanation. Its shape is three moves: **claim** (what is true), **evidence** (the data and the named source), **reasoning** (why the evidence supports the claim). Worked demonstration 1 shows one in full.

Form 3: the editorial. An editorial is a short piece that argues for action on a geographical issue, written for the readers of a newspaper, magazine or newsletter. Its power comes from evidence, not volume — and from treating the other side honestly. A strong editorial shows the other side's strongest point honestly, then says why the position still stands. That is not weakness; readers trust a writer who can state the other view better than the other side can.

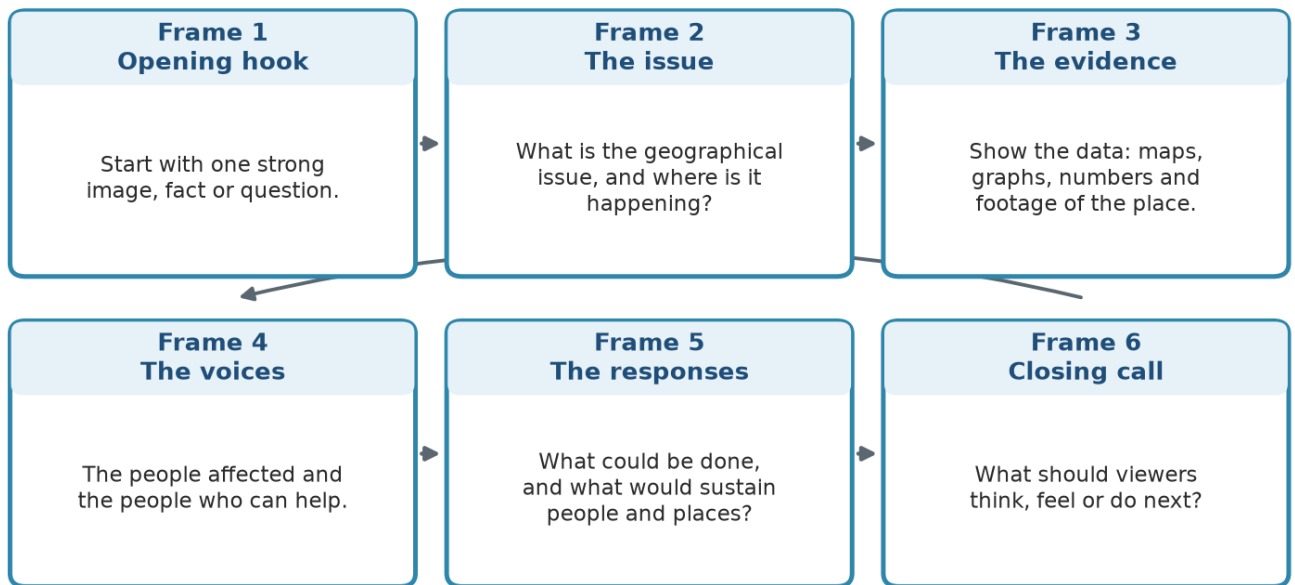
The shape of an editorial



Five stacked boxes in order — hook, position, reasons with evidence, the other side's strongest point, call to action — each with a one-line hint, joined by arrows

Form 4: the video documentary. A short film that informs viewers about an issue and suggests responses that sustain people and places. Plan it as a storyboard: six frames, one job each.

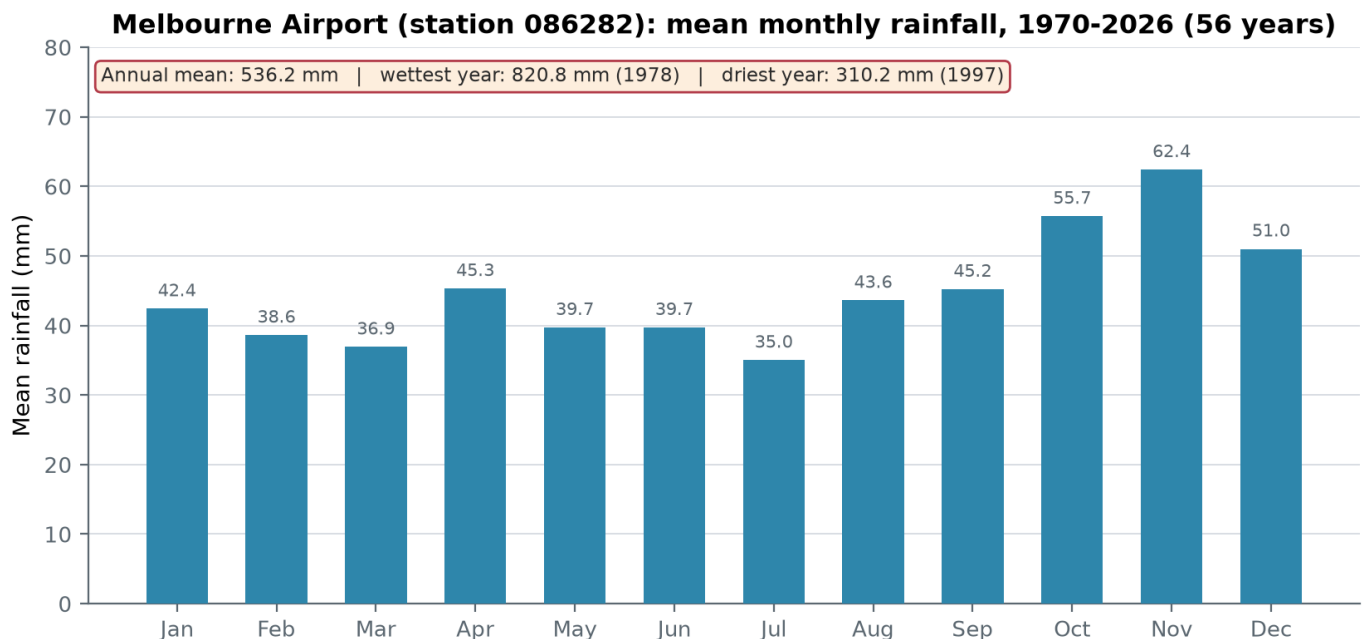
Storyboard plan for a video documentary



A storyboard of six frames in two rows — opening hook, the issue, the evidence, the voices, the responses, closing call — with arrows showing the viewing order

Worked demonstration 1 — an evidence-based explanation from real data

Step 1: check the source. The graph below comes from the Bureau of Meteorology, the organisation that measures Australia’s weather for its job. The data is based on 56 years of measured records at a named station, and the retrieval date is stated. It passes all four source questions.



Source: Bureau of Meteorology, climate statistics for station 086282 (Melbourne Airport), retrieved 19 August 2026.

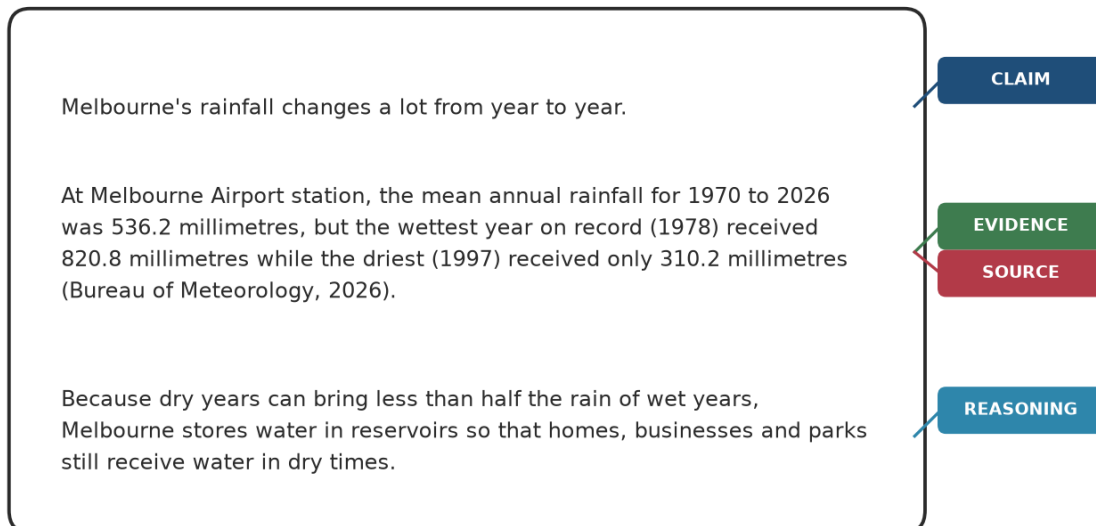
Bar graph of mean monthly rainfall at Melbourne Airport station 086282 for 1970 to 2026, with a band stating the annual mean of 536.2 millimetres, the wettest year 1978 at 820.8 millimetres and the driest year 1997 at 310.2 millimetres

Source: Bureau of Meteorology, climate statistics for station 086282 (Melbourne Airport), retrieved 19 August 2026.

Step 2: read the graph for a pattern. The monthly bars are similar in height (35–62 mm), so the *seasonal* pattern is mild. The interesting pattern is in the band: year-to-year change is huge — the wettest year received nearly three times the rain of the driest.

Step 3: write the paragraph. One claim, one evidence sentence with the source named in the text, one reasoning sentence.

A model paragraph, taken apart



All four ingredients, in one paragraph:



Knowledge: accurate facts about Melbourne's water (Section 1D)



Concepts: change over time, sustainability of supply



Methods: the climate graph in figure 6c_melbourne_rainfall.png



Sources: Bureau of Meteorology, named in the text and in the list

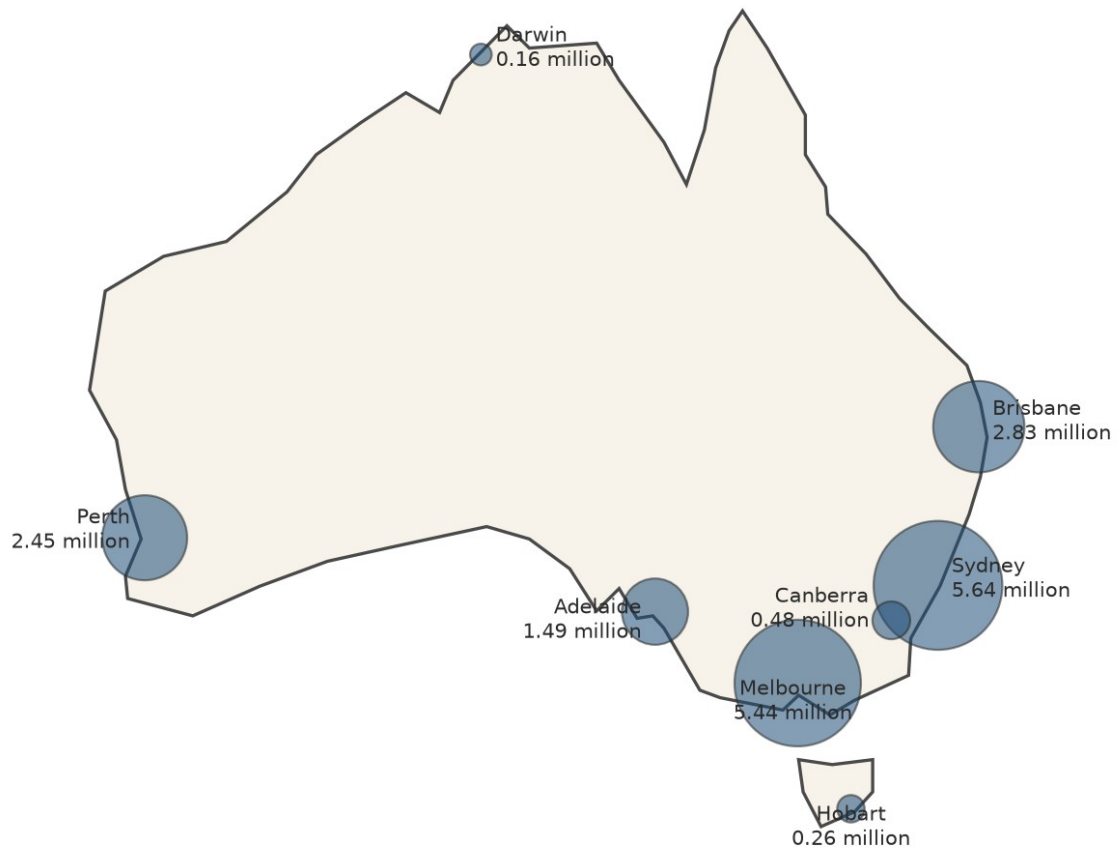
A model paragraph of three sentences with margin tags: the claim sentence, the evidence sentence tagged EVIDENCE and SOURCE, and the reasoning sentence tagged REASONING, above a legend matching the four ingredients

Step 4: add the reference list entry. The source now appears in two places — in the text and in the list — exactly as Part 3 requires.

Worked demonstration 2 — a map as evidence

Maps are not only decoration; a well-drawn map is an argument. The map below represents one number per city with circles drawn to scale.

Where Australians live: population of the eight capital cities, 30 June 2025



Circle area is drawn in proportion to population. Together the eight capital cities hold 18.8 million people, about 68% of Australia's 27.6 million. Victoria is the most concentrated state: 76.8% of Victorians live in Greater Melbourne.
Source: ABS, Regional population, Australia, 2024-25 (cat. 3218.0), GCCSA ERP 30 June 2025, retrieved 25 August 2026.
Map outline is simplified and drawn from primitives; not for navigation.

Map of Australia with a circle at each of the eight capital cities, the circle area growing with the city's population: largest circles at Sydney and Melbourne, smallest at Darwin, with a caption stating that the capitals together hold about two-thirds of Australians and that about 77 per cent of Victorians live in Greater Melbourne

Source: Australian Bureau of Statistics, Regional population 2024–25 (at 30 June 2025), retrieved 25 August 2026.

A model two-sentence read of the map, with the source named:

Australia's people are unevenly spread: the eight capital cities together hold 18,750,880 of the country's 27,613,654 people — about 68 per cent (Australian Bureau of Statistics, 2025). The pattern is even stronger inside Victoria, where about 77 per cent of the state's 7,073,859 people live in Greater Melbourne (Australian Bureau of Statistics, 2025).

Two concepts are doing work here: **space** (where people are and are not) and **scale** (the national pattern repeated, stronger, at the state scale). Naming the concept you are using is what turns a map description into a geographical explanation.

Part 5 — Presenting, and the final check

Presenting means matching the form to the audience: a report for your teacher and class is written in a different way from an editorial for the school newsletter or a documentary for a whole-school screening. Whatever the form, the last step is the same — run the checklist before you submit.

Before you submit: the 6C checklist

☐	I have a title and clear headings.
☐	My facts are accurate, and place names are spelled correctly.
☐	I used at least one of the seven geographical concepts as an organising idea.
☐	My maps, graphs and tables have titles, labels and captions (maps follow the BOLTSS rules from 5C).
☐	Every figure carries a source line saying where the data came from.
☐	Every fact, number or idea I borrowed is named in my text.
☐	My reference list at the end names every source I used.
☐	Where I argue a position, I show the other side's strongest point honestly.
☐	I checked my spelling and used Australian English.

A checklist of nine tick boxes: title and headings; accurate facts and correct place names; a concept as an organising idea; titled and labelled figures with captions; a source line on every figure; every borrowed fact named in the text; a complete reference list; the other side's strongest point shown honestly; spelling checked in Australian English

Practice — scaffolded

Q1. Look at the inquiry cycle diagram in Part 1. (a) Name the stage this section teaches. (b) Match each earlier stage to the section that trained it: 5A, 5B, 5C, 5D, 6A, 6B.

Q2. Sort these four sentences into the four ingredients (knowledge, concept, method, source): (a) “Greater Melbourne held 5,435,590 people at 30 June 2025.” (b) “Comparing 1997 with 1978 shows how much rainfall can change.” (c) “We counted cars in the school car park in five-minute blocks and made a bar graph.” (d) “These numbers come from the Australian Bureau of Statistics (2025).”

Q3. Run the four source questions over these two sources and decide which one you may use in a report: (a) the Bureau of Meteorology rainfall records for station 086282, 1970–2026; (b) an unsigned social media post that says “Melbourne is running out of rain!!!” with no date and no numbers. For (b), say exactly which questions it fails.

Q4. These sentences borrow facts but do not name the source. Rewrite each with a correct in-text reference. (a) “The wettest year on record at Melbourne Airport was 1978, with 820.8 mm of rain.” (b) “About 68 per cent of Australians live in the eight capital cities.”

Q5. A reference list is in alphabetical order by the maker’s name. Put these two entries in the right order and say what piece of each entry tells the reader *when* the source was made and *when you found it*: (a) Bureau of Meteorology (2026) *Climate statistics for Australian locations: Melbourne Airport (station 086282)*, Melbourne, retrieved 19 August 2026. (b) Australian Bureau of Statistics (2025) *Regional population, 2024–25 financial year*, Canberra, retrieved 25 August 2026.

Q6. Match each job to the best form (fieldwork report, explanation, editorial, documentary) and give one reason: (a) Your class measured creek depth at two sites and must show the method and results. (b) The school newsletter wants a short piece urging students to cut water waste this term. (c) A reader wants to understand *why* Melbourne’s water supply has to cope with both very wet and very dry years. (d) The school assembly wants a three-minute film introducing a local issue and the people working on it.

Q7. These sentences belong in a fieldwork report, but they are in the wrong parts. Label each with its correct part (title and question, method, results, discussion, conclusion and action, references): (a) “The counts are listed in the table above, and the list of sources is at the end.” (b) “Site A averaged 14 cars per five minutes; Site B averaged 31.” (c) “Is the crossing outside our school safe at 3 pm?” (d) “We stood at each site with a tally sheet for 20 minutes after the bell.” (e) “Site B’s higher count suggests the crossing is busier and may need a supervised crossing time.” (f) “The school should ask the council for a crossing supervisor between 3 and 3.30 pm.”

Q8. Below is a draft editorial paragraph with one part missing. (a) Name the missing part. (b) Write two sentences supplying it, using the rule from Part 4 about treating the other side honestly.

Drinking fountains should be refitted in every Melbourne school oval. Ovals dry out fast in summer, and piped water keeps them usable (see the rainfall record in this section, where even the wettest months average under 65 mm). Some will say the refit costs money the school does not have. [YOUR TWO SENTENCES HERE] Until then, every hot term ends with a dead oval and a cancelled game.

Practice — unscaffolded

Q9. Using the Melbourne rainfall graph (Worked demonstration 1), write your own paragraph of three sentences — claim, evidence with an in-text reference, reasoning — about a *different* pattern from the one modelled (for example, the seasonal shape of the bars).

Q10. Using the capital-cities map (Worked demonstration 2), write two to three sentences that (a) describe the pattern, (b) name the source in your text, and (c) use at least one geographical concept, naming it in brackets after the sentence where it does its work.

Q11. Choose one geographical issue you studied in Chapters 1–4 (for example: water use in your locality, city growth, liveability of your suburb, or a famous Victorian landform and its visitors). Plan — do not yet write — a response in the form of your choice: a one-line purpose, a one-line audience, and a bullet outline that follows that form’s shape diagram from Part 4, with at least two pieces of evidence and the source you would name for each.

Q12. Swap your Q11 plan with a partner. Using the checklist in Part 5, give them two strengths and one fix, and receive the same. Record your fix and rewrite the matching bullet.

Extended response

Q13. The exit task. Create and present a complete referenced geographical response on any topic you studied in Chapters 1–4, in **one** of the four forms from Part 4. Your response must:

- answer one clear geographical question you state at the start;
- use at least **three** sources that pass the four questions from Part 3;
- name every borrowed fact, number or map idea in your text, and end with a reference list;
- include at least **one** figure you have drawn yourself (a map following BOLTSS, or a graph or table with a title, labels and a caption), each figure carrying a source line;
- use at least **two** geographical concepts as organising ideas, naming them;
- if your form argues a position, show the other side's strongest point honestly;
- pass every line of the checklist in Part 5 before you submit.

Suggested lengths: fieldwork report 500–700 words with figures; explanation 300–400 words with one figure; editorial 250–350 words; documentary a six-frame storyboard plus a 300-word narration script.

Teaching notes (for the teacher)

- **Teaching sequence.** 1) Locate the section in the inquiry cycle (Part 1) and retrieve the six earlier stages. 2) Build the four-ingredients frame (Part 2) and return to it after every form. 3) Source checking and naming (Part 3) before any writing. 4) The four shapes (Part 4), then the two worked demonstrations as live modelling: think the source check aloud, then write the model paragraph with the class suggesting each move. 5) Scaffolded practice, then unscaffolded, then Q13 as the assessed exit task.
 - **Fieldwork note (D11).** The fieldwork hosted here is the same single fieldwork that 5B methodised and 2F/3C/3D hosted; it is scored once per owning CD. 6C assesses the *reporting* of that fieldwork (or of any Chapter 1–4 topic), not new data collection.
 - **Elaboration mapping.** .E01 fieldwork report (Part 4 form 1, Q6a, Q13); .E02 video documentary and responses involving sustainability (Part 4 form 4, Q6d); .E03 editorial encouraging action (Part 4 form 3, Q8, Q6b); .E04 matching audience and accurate information on the strategy you prefer (Part 4, Part 5, Q6); .E05 explanation using research findings and interconnections (Worked demonstrations 1–2, Q9–Q10); .E06 representing data with geographical methods — maps of water use, liveability, landforms and population (Worked demonstration 2, Q11). Elaborations are illustrations, not a syllabus: do not walk E01→E06 in class order.
 - **Vocabulary.** Student-facing text is written at or below Year 7; contested or technical terms (liveability, BOLTSS, the seven concepts) are defined at first use. No Aboriginal and Torres Strait Islander content is included in this section, per the book's Rule 1 disposition.
 - **Assessment look-fors in Q13.** All four ingredients present; every figure sourced; in-text references and reference list agree; the concept named actually organises the argument; the other side is steelmanned, not mocked.
-

Glossary

- **audience** — the people a response is made for; the audience shapes the form, tone and length.
- **call to action** — the part of an editorial or documentary that tells readers or viewers exactly what to do, who should do it, and when.
- **claim** — the statement of what is true; the answer your evidence must support.
- **documentary** — a short factual film that informs viewers about an issue and suggests responses.
- **editorial** — a short piece in a newspaper, magazine or newsletter that argues a position and encourages action on an issue.

- **evidence** — the data, measurements, observations and sourced facts that support a claim.
- **fieldwork report** — a written account of fieldwork: question, background, method, results, discussion, conclusion and action, references.
- **hook** — the opening of an editorial or documentary that grabs the audience with a surprising fact, question or strong image.
- **in-text reference** — naming a source in brackets at the moment a fact or number is borrowed, e.g. (Bureau of Meteorology, 2026).
- **position** — the one-sentence view of the issue that an editorial argues for.
- **reasoning** — the sentence or sentences that explain why the evidence supports the claim.
- **reference list** — the alphabetical list at the end of a response giving one full entry for every source used.
- **source** — any person, organisation, map, graph, dataset or document you borrow information from.
- **source line** — the italic line under a figure saying where the data or map idea came from.