

Living Things in a Changing Environment — Research Response

A1-BIO practical summative · 25% due: End of Component 1 (around Lesson 4)

Summative research response for the Biological sciences strand. Students investigate how changing conditions and human activities affect the growth and survival of a chosen Australian living thing, then develop a considered, evidence-based conservation response. Submitted as a short written report (about one to one-and-a-half pages) over part of two lessons. Assesses ULO1 (biological understanding) and ULO7 (communicating and applying). Modelled on the SCSA Year 6 Investigation Template (biological sciences). Weighting is a school convention (25% of four equally weighted summatives), not mandated by the syllabus.

Task

Living things depend on their environment to grow and survive. When conditions change — through nature or through what people do — some living things struggle and some are helped. In this task you will choose one Australian living thing, explain how changing conditions and human activities affect it, and recommend a considered action to help it survive.

What you will hand in: a short written response (about one to one-and-a-half pages) answering all five parts below. You may use the sources provided in class and your own research. Work on your own.

Part A — Choose and describe

1. Name the living thing you have chosen and describe its **habitat** — where it lives and what it needs from its **environment** to survive.

Part B — Changing conditions

2. Describe **one natural change** in conditions (for example drought, fire, or seasonal change) and explain how it affects the growth or **survival** of your living thing.

Part C — Human activity

3. Describe **one human activity** (for example land clearing, pollution, or an **introduced species**) and explain, using evidence, how it affects your living thing.

Part D — A considered response

4. Suggest one **conservation** action that could help your living thing survive. Explain **why** it would help, using what you know about its needs.

Part E — Evidence

5. List the sources of evidence you used (books, websites, or class materials).

Aim for your best work: use correct science words, give reasons (not just statements), and back up your ideas with evidence.

Rubric criteria (weights as a percentage of this assessment)

Criterion	Weight	Descriptor
Considered response and use of evidence	30%	High (5): Proposes a relevant conservation action and justifies clearly why it would help, drawing on the living thing's needs and on cited evidence. Sound (3–4): Proposes a reasonable action with some justification and reference to evidence. Limited (1–2): Suggests an action with little justification or evidence.
Effect of changing conditions and human activity	30%	High (5): Clearly explains how both a natural change in conditions and a human activity affect growth or survival, with cause-and-effect reasoning. Sound (3–4): Explains the effect of a natural change and a human activity, with some reasoning. Limited (1–2): States a change or activity with little or no explanation of its effect.
Understanding of survival, environment and habitat	25%	High (5): Accurately describes the living thing's habitat and clearly explains what it needs from its environment to grow and survive, using correct scientific vocabulary. Sound (3–4): Describes the habitat and identifies several needs. Limited (1–2): Names the living thing and states one need, with little detail.
Communication and scientific vocabulary	15%	High (5): Communicates ideas clearly and logically, using correct scientific vocabulary (environment, habitat, survival, human activity, conservation) throughout. Sound (3–4): Communicates clearly with some scientific vocabulary. Limited (1–2): Ideas are unclear or use little scientific vocabulary.