

Journal Prompt: Why Variation Matters

A small change, like a mutation or a different beak shape, can decide if a species survives a tough year or dies out completely.

Pick one species you know well (a pet, a local animal, or one you studied in class). Explain how differences within that species could help it survive a sudden change in its environment. Examples include a new disease, a drought, or a habitat disturbance ([Outcome](#)).

Where to start:

- What physical or behavioural traits vary among individuals of this species?
- Which of those traits are heritable, and which might depend more on environment ([Outcome](#))?
- If conditions suddenly got harsher, which variation might help some individuals survive when others don't?
- How would that surviving variation get passed on to the next generation?

Stretch:

Research a real example of a species that lost genetic diversity (through extinction, extirpation, or a shrinking population) and explain what made it vulnerable ([Outcome](#)).