

This is the **Higher Separate** version — includes all Higher Tier content (marked ★) and all Separate Science content.

Selective breeding allows humans to dramatically improve useful characteristics in domesticated species over many generations.

- Select individuals with desired traits → breed together → select best offspring → repeat
- Examples: high-yield crops, disease-resistant wheat, dairy cows, fast horses, docile dogs
- Advantages: improved yield, disease resistance, useful characteristics
- Disadvantages: reduced genetic diversity, inbreeding problems, vulnerability to new diseases
- ★ **HT** Irish Potato Famine: one potato variety → new blight → total crop failure → famine

Key Terms

Selective breeding	Humans choosing which individuals breed — based on desired traits
Gene pool	Total genetic diversity in a population — reduced by selective breeding

■ **Exam Tip:** Always evaluate selective breeding: advantages (improved traits) AND disadvantages (reduced diversity, inbreeding). Both sides needed for evaluation marks.