Biology extension review: evidence and application

Teacher / technician

YEAR 11 / LESSON 116 / BIOLOGY ONLY

Staff preparation and answer guidance. Keep separate from student sheets. Original learning tasks; no supplied numerical example represents class measurements.

Coverage and delivery

Biology-only final consolidation and application.

Allow about 60 minutes. Follow the student sequence and use the answers to check reasoning.

Requisition • class of 30, working in 15 pairs

Item	Per pair / setup	Class total
Student booklets	1 per learner	30
Earlier worksheets and evidence packs	1 set per pair	15 sets
Rulers	1 per pair	15

Immediate safety

Paper, modelling and written reasoning only. No chemicals or biological samples are handled.

Preparation and delivery

Read alongside the student method

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1. Provide 30 booklets, 15 rulers and 15 reference packs containing earlier extension practical records, biotechnology diagrams and biodiversity sampling records.

2. Keep answers separate until learners have attempted the tasks; discuss the reasons for corrections.

3. Select previously completed enzyme-pH or potometer records, a cloning or genetic-engineering diagram and matched-effort sampling examples. Provide anonymised spares labelled with their origin where needed. This is a paper-based review; do not repeat experiments or handle organisms. Learners finish with a specific correction and revision plan.

Close of lesson

• Return shared reference packs and keep the corrected work and revision plan.

Check before teaching

Check the cards, reference data and quantities against this requisition. Keep the staff answer guide separate until the checking stage. Supplied numerical practice datasets are labelled examples; they are not class measurements.

Answers and teaching notes

Expected explanations • do not give as experimental observations

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- They address different sources of variation and independence.
- No; design, controls and alternative explanations matter.
- No.
- An organism carrying genetic material transferred from another species.
- Area and effort affect the species and individuals detected.
- It states the correct mechanism and explains the original error.

References and provenance

Pearson Biology specification

Prepared 22 November 2026. Original wording, tables and questions. Sources inform the concepts and technique; the lesson scope and classroom quantities are explicitly described here. No laboratory trial or final school risk approval is claimed.