Eukaryotes: compare the evidence

Teacher / technician

YEAR 10 / LESSON 3 / BIOLOGY + SCIENCE (DOUBLE AWARD)

Staff preparation and answer guidance. Keep separate from student sheets. Paper and model activity. No live culture, specimen collection or clinical interpretation.

Coverage and delivery

Shared Biology / Double Award: 1.2. Plants, animals, fungi and protoctists.

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 copies
Paper / model sets	1 per pair	15 sets
Writing tools / rulers	1 per learner	30 sets

Immediate safety

Use paper or clean reusable models. No body samples, microbial cultures or unknown biological material are handled.

Preparation and delivery

Read alongside the student method

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1. Provide 30 student booklets and 15 sets of reusable models or blank paper cards. All examples needed are supplied in the task text.

2. Allow 10 minutes recall, 25 minutes pair reasoning, 15 minutes explanation and 10 minutes corrections. Keep answers separate until discussion.

3. This replaces the previous unknown-airborne-culture activity with supplied profiles that directly address classification.

4. Do not culture unknown environmental organisms or requisition nutrient agar for this lesson. Correct the earlier keyword error: prokaryotes lack a nucleus and membrane-bound organelles.

Close of lesson

• Return reusable materials and retain your corrected reasoning.

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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- Its genetic material is enclosed in a membrane-bound nucleus.
- Fungal walls contain chitin; plant walls contain cellulose.
- Enzymes are secreted onto organic material and soluble digestion products are absorbed.
- Unicellularity does not exclude fungi; classification uses a combination of cellular and nutritional features.
- Amoeba feeds on organic material whereas Chlorella photosynthesises; Plasmodium is parasitic.
- No. Appearance alone is insufficient and no identification test is performed here.

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.