BIOLOGY YEAR 12 - MODULE 5 - LESSON 3

Reproduction in Plants, Fungi, Bacteria and Protists

Use this worksheet after reading the lesson to practise the key ideas and prove you can meet the success criteria.

Name _____

Date _____

Class _____

1. Key Ideas

A strawberry plant can spread by runners, baker's yeast can bud, bacteria can divide by binary fission, and flowering plants can produce seeds after pollination and fertilisation. The biological goal is the same in every case: continuity of the species. The mechanism changes with the organism and the conditions it faces.

- How flowering plants reproduce sexually through pollination, fertilisation and seed formation.
- Why different organisms use different reproductive strategies.

2. Success Criteria

By the end, you should be able to:

- How flowering plants reproduce sexually through pollination, fertilisation and seed formation.
- Examples of plant asexual reproduction such as runners, bulbs, tubers and cuttings.
- How fungi, bacteria and protists reproduce using budding, spores or binary fission.

3. Key Terms

Pollination
Transfer of pollen from anther to stigma in flowering plants.

Fertilisation
Fusion of male and female gametes to form a zygote.

Vegetative propagation
Asexual reproduction in plants using structures such as runners, bulbs, tubers or cuttings.

Budding
Asexual reproduction in which a new organism grows from the body of the parent.

Spore
A reproductive cell that can develop into a new organism under suitable conditions.

Binary fission
Asexual reproduction in which one cell replicates its DNA and divides into two daughter cells.

4. Activity: Build the Lesson Map

Use the lesson to complete the table. Keep answers brief but specific.

Prompt	Your answer
Main concept	
Important example	
Common mistake to avoid	
How this links to the next lesson	

5. Short Answer Questions

1. Explain this lesson goal in your own words: "How flowering plants reproduce sexually through pollination, fertilisation and seed formation.". Use one specific example from the lesson.

BAND 3 2 MARKS

2. Apply this idea to a new example: "Examples of plant asexual reproduction such as runners, bulbs, tubers and cuttings.". Show your reasoning clearly.

BAND 4 3 MARKS

3. Analyse why this idea matters for understanding Reproduction in Plants, Fungi, Bacteria and Protists: "How fungi, bacteria and protists reproduce using budding, spores or binary fission.".

BAND 5 4 MARKS

6. Extend: Apply the Idea

BAND 5/6 5 MARKS

A student gives a memorised answer about Reproduction in Plants, Fungi, Bacteria and Protists but does not use evidence or reasoning.

Improve the answer by writing a stronger response that uses accurate terminology, a relevant example and a clear explanation.

7. Multiple Choice

1. What is the best first step when answering a question about Reproduction in Plants, Fungi, Bacteria and Protists?

- [ ] A. Identify the key concept being tested
- [ ] B. Write every fact from memory
- [ ] C. Ignore the command word
- [ ] D. Skip examples and evidence

2. Which answer would show stronger understanding of Reproduction in Plants, Fungi, Bacteria and Protists?

- [ ] A. An answer with accurate terms and reasoning
- [ ] B. A copied definition only
- [ ] C. A single-word response
- [ ] D. An answer with no example

3. What should you do if a question asks you to explain?

- [ ] A. Link the idea to a reason or cause
- [ ] B. List unrelated facts
- [ ] C. Only draw a diagram
- [ ] D. Write the shortest possible answer

8. Success Criteria Proof

Finish with evidence that you can do each success criterion.

SUCCESS CRITERION 1

Prove that you can: How flowering plants reproduce sexually through pollination, fertilisation and seed formation.

BAND 3 2 MARKS

SUCCESS CRITERION 2

Prove that you can: Examples of plant asexual reproduction such as runners, bulbs, tubers and cuttings.

BAND 4 3 MARKS

SUCCESS CRITERION 3

Prove that you can: How fungi, bacteria and protists reproduce using budding, spores or binary fission.

BAND 5 4 MARKS

One thing I still need help with: