

Sets (s): Triple Award

YEAR 10

SUBJECT **Biology LP4**

Knowledge Focus: **Ecosystems and Cycles**



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This half term : Skills, Knowledge and Understanding to be developed

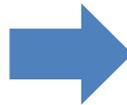
After your mock exams, you will learn how to construct and interpret food chains, and pyramids of numbers/ biomass. You will consider how energy is lost between organisms and calculate this energy loss using given data. You will then look at decay and how nutrients are recycled amongst organisms.

Key Terms to be learned this half term:

producer, consumer, herbivore, carnivore, omnivore, pyramid of numbers, pyramid of biomass, energy efficiency, nitrogen fixing, nitrifying, denitrifying, decomposition, intensive farming, pesticides, bioaccumulation, fertilisers, algal bloom,

Week 1 and 2 Learning Objectives etc:

- MOCK EXAMS



SA: Mock exam results

Objective assessments:

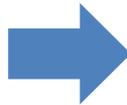
Results of mock exam

Homework:

Revise Biology work so far for a mock exam.

Week 3 and 4 Learning Objectives etc:

- Draw and interpret food chains and food webs.
- Draw pyramids of numbers and biomass.
- Describe the ways that energy is lost in food chains and calculate their efficiency.



Objective assessments:

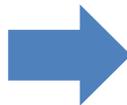
Calculations of efficiency in energy transfers.

Homework:

Complete the key word grid for this learning plan.

Week 5 and 6 Learning Objectives etc:

- Describe the role of micro-organisms in decay and the conditions needed.
- Describe the carbon cycle and the processes that remove or add carbon to the atmosphere.
- Describe the nitrogen cycle and the processes that change nitrogen from one compound to another.
- Understand the roles of micro-organisms in the nitrogen cycle.



APP question on food chains and energy

Objective assessments:

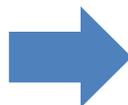
Answers to past exam questions on cycles.

Homework:

Revise topic so far for a test.

Week 7 Learning Objectives etc:

- Explain the problems caused by intensive farming and the use of pesticides.
- Describe the problems to wildlife from the overuse of fertilisers.



Objective assessments:

Explanations of harm caused by pesticides/fertilisers.

Homework:

Exam questions on cycles.