

32 Which flowchart shows how energy is transferred from the Sun to an organism?

- A** chemical energy in carbohydrates → stored in plants → energy trapped by chlorophyll
- B** stored in plants → chemical energy in carbohydrates → energy trapped by chlorophyll
- C** stored in plants → energy trapped by chlorophyll → chemical energy in carbohydrates
- D** energy trapped by chlorophyll → chemical energy in carbohydrates → stored in plants

33 Which statements about a food chain are correct?

- 1 Between trophic level 1 and trophic level 2, energy is passed from a herbivore to a carnivore.
- 2 Between trophic level 2 and trophic level 3, energy is passed from a primary consumer to a secondary consumer.
- 3 Between trophic level 3 and trophic level 4, energy is passed from a secondary consumer to a tertiary consumer.

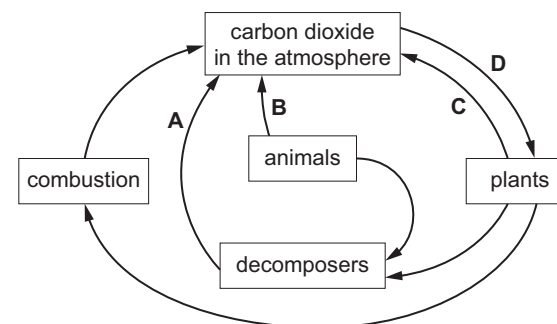
- A** 1 and 3 **B** 1 only **C** 2 and 3 **D** 2 only

34 Which process in the nitrogen cycle is involved in the breakdown of amino acids in living organisms?

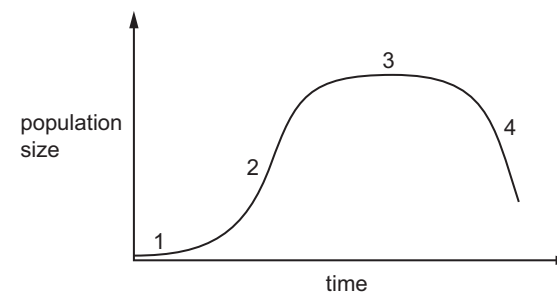
- A** deamination
B decomposition
C denitrification
D digestion

35 The diagram shows part of the carbon cycle.

Which arrow represents photosynthesis?



36 The graph shows how the size of a population changes over time.



Which row identifies the phases of population growth?

	death phase	exponential phase	lag phase
A	3	1	4
B	3	2	1
C	4	1	3
D	4	2	1

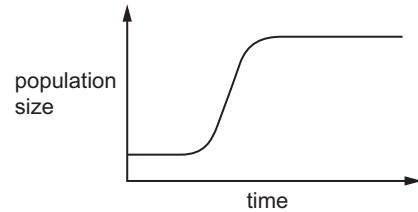
35 Which unit could be used for the measurements needed to construct a pyramid of energy?

- A** kJ per g per m²
B kJ per kg per year
C kJ per m² per year
D kJ per kg

36 Which process needs microorganisms to break down protein to produce ammonium ions?

- A decomposition
- B denitrification
- C nitrification
- D nitrogen fixation

37 The graph shows part of a growth curve for a bacterial population.



What is **not** shown in the graph?

- A the death phase
- B the exponential phase
- C the lag phase
- D the stationary phase

35 Which process removes carbon dioxide from the atmosphere?

- A combustion
- B decomposition
- C photosynthesis
- D respiration

38 In which trophic level are herbivores found?

- A primary consumers
- B quaternary consumers
- C secondary consumers
- D tertiary consumers