

# Exam for Unit 4: Ecosystems and Living Things

1. What is an ecosystem? Explain in your own words.

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2. Click the 4 things that make up parts of an ECOSYSTEM.

|              |             |             |             |             |
|--------------|-------------|-------------|-------------|-------------|
| heterotrophs | producers   | habitats    | fungi       | bacteria    |
| animals      | populations | individuals | vertebrates | communities |

3. a) What do we use to show the direct connections between living things in an ecosystem?  
b) What do we use to show the complex connections between organisms in an ecosystem?  
c) Which one shows the biomass available in an ecosystem?  
d) Which one has three levels?

4. a) Read the characteristics and choose the correct type of ecosystem.

- i) *This ecosystem can contain evergreen and deciduous trees. It can be found in temperate, tropical and Mediterranean regions of the planet.*
- i i) *This ecosystem is very dry. It is hot in the day and cold at night.*
- iii) *Savannahs, prairies and steppes are examples of this type of ecosystem. They are covered with grasses and shrubs.*
- iv) *This ecosystem contains the biggest variety of organisms. 71% of Earth is covered in this type of ecosystem.*
- v) *This ecosystem is found in the North and South of the planet. It is generally very dry and extremely cold.*
- vi) *This type of ecosystem is not natural. It is an imitation, created by humans.*

b) Now, give 2 examples of organisms (1 plant + 1 animal) we can find in each of these ecosystems:

| <b>Ecosystem:</b> | <b>Plant:</b> | <b>Animal:</b> |
|-------------------|---------------|----------------|
| Forest            | _____         | _____          |
| Grassland         | _____         | _____          |
| Desert            | _____         | _____          |
| Tundra            | _____         | _____          |
| Marine            | _____         | _____          |
| Freshwater        | _____         | _____          |

5. Move the organisms into the correct order to make 2 basic food chains.  
Three organisms have been put in place for you.

|                |                 |               |             |                |              |              |
|----------------|-----------------|---------------|-------------|----------------|--------------|--------------|
| squirrel       | butterfly       | hawk          | flower      | acorn          | fly          | toucan       |
| <i>ardilla</i> | <i>mariposa</i> | <i>halcon</i> | <i>flor</i> | <i>bellota</i> | <i>mosca</i> | <i>tucán</i> |

|                    | Mediterranean forest     | Tropical rainforest |
|--------------------|--------------------------|---------------------|
| PRODUCER           |                          |                     |
| PRIMARY CONSUMER   |                          |                     |
| SECONDARY CONSUMER | serpent                  |                     |
| TERTIARY CONSUMER  |                          | boa constrictor     |
| DECOMPOSER         | mushroom ( <i>seta</i> ) |                     |

6. Choose the correct vocabulary to go with the definition:



*this type of organism eats other organisms for food*

*this type of organism does not have a nucleus in its cells*

*these organisms produce their own food through photosynthesis*

*these heterotrophic consumers only eat plants*

*these autotrophic organisms use sunlight, nutrients and gases to make energy*

*these organisms can be parasitic or consume dead organic material*

*this is the energy available in an ecosystem, represented as populations*

*this material is produced by plants and passed through food chains*

7. Click the 6 components we find in BOTH animal *and* plant cells:

|            |              |             |               |              |
|------------|--------------|-------------|---------------|--------------|
| organelles | cytoplasm    | cell wall   | vacuole(s)    | mitochondria |
| a nucleus  | chloroplasts | chlorophyll | cell membrane |              |

8. a) What does EUKARYOTIC mean?

b) What does PROKARYOTIC mean?

9. Plant cells are a little different from animal cells. Complete these exercises about plant cells:

a) Describe the function of the CELL WALL:

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b) What extra pieces do we find inside a plant cell?

i) \_\_\_\_\_

ii) \_\_\_\_\_

c) What process do these pieces do? Choose the correct answer:

d) In your own words, describe *why* PHOTOSYNTHESIS is important in a food chain or food web:

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10. All living things are made up of tiny pieces, all working together. Put these words in the correct order, from *smallest* to *BIGGEST*:



organism    organ    tissue    cell    organ system



11. a) What are the 5 kingdoms of living things?

Give 2 examples of living things from each of the Kingdoms.

**Name of Kingdom**

**Examples of Organisms (living things)**

i) \_\_\_\_\_ Kingdom

\_\_\_\_\_ + \_\_\_\_\_

ii) \_\_\_\_\_ Kingdom

\_\_\_\_\_ + \_\_\_\_\_

iii) \_\_\_\_\_ Kingdom

\_\_\_\_\_ + \_\_\_\_\_

iv) \_\_\_\_\_ Kingdom

\_\_\_\_\_ + \_\_\_\_\_

v) \_\_\_\_\_ Kingdom

\_\_\_\_\_ + \_\_\_\_\_

b) Which Kingdoms have single-celled organisms?

i) \_\_\_\_\_ Kingdom

ii) \_\_\_\_\_ Kingdom

iii) \_\_\_\_\_ Kingdom



12. a) What does it mean when we call an organism **ENDANGERED**?

\_\_\_\_\_

\_\_\_\_\_

b) Give 2 examples of **ENDANGERED** organisms:

i) \_\_\_\_\_

ii) \_\_\_\_\_

c) Why are **INVASIVE** species a problem in an ecosystem? Explain.

\_\_\_\_\_

\_\_\_\_\_

**CHECK YOUR ANSWERS**

