

ACTIVITIES

UNIT 4. ECOSYSTEMS

CHECK YOUR LEARNING

Answer the following questions. Use **full sentences** and be careful with your handwriting.

ELEMENTS OF AN ECOSYSTEM

1. Define these words

- a. Population _____

- b. Flora _____

- c. Physical environment _____

- d. Community _____

- e. Fauna _____

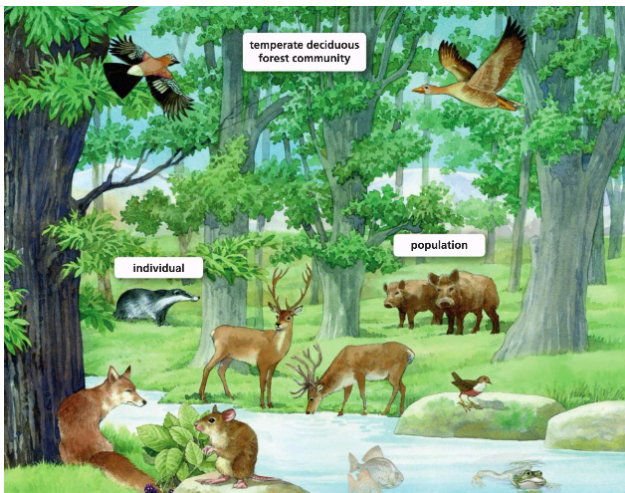
- f. Ecosystem _____

2. Complete the sentences about ecosystems

- a. Living things include _____

- b. The physical environment includes _____

3. Look at his ecosystem. List the elements of the physical environment and the living things.



Physical environment _____

Living things _____

4. Classify the words in the right column. Then add two more examples in each column.

Heat - birds - trees - ice - sand - ants - moisture - soil - algae - fungi - air - whales

Physical environment		Living things		
Elements	Factors	Flora	Fauna	Other

5. Look at the photographs to the right. Which are the components of a rabbit's environment? Explain



6. Look at his photograph. Which factors affect this terrestrial ecosystem? How do they affect it?



7. Draw and label an aquatic ecosystem. Include the physical environment and several populations of both animals and plants.

A large, empty rounded rectangular box with a black border, intended for drawing and labeling an aquatic ecosystem.

8. Complete the text using these words.

terrestrial shelter community physical environment
population interrelationships aquatic species

Ecosystems consist of a _____, living things and the _____ among them and the environment. Physical environment can be _____ or _____.

All living things are grouped into _____. All the organisms of one species in an ecosystem make up a _____, and all the populations of an ecosystem make up a _____.

9. Find the mistakes. Write the sentences correctly.

a. As a group, all the living things in an ocean are called a population.

b. Zebras and horses are different species, so they can reproduce successfully.

c. All the oak trees in a forest make up the community of oak trees in that forest.

10. Write the terms for these definitions

a. _____ : all animals living in an ecosystem.

b. _____ : a place where a particular plant or animal normally grows or lives.

c. _____ : all plant life in an ecosystem.

d. _____ : all living and non-living things found in a specific area and the interaction between them.

e. _____ : group of organisms of the same species in an area.

f. _____ : group of organisms of different species in an area.

TYPES OF ECOSYSTEMS

11. Read the following sentences and indicate if they are true (T) of false (F). Correct the false ones.

a. Artificial ecosystems can only be terrestrial. ____

b. All ecosystems are very big in size. ____

c. The biggest ecosystem on planet Earth is the Earth itself. ____

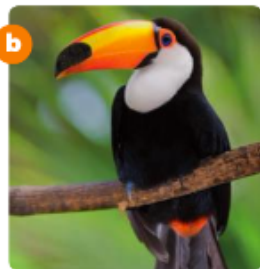
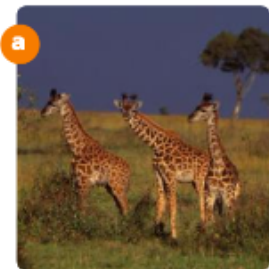
d. A puddle is considered a small ecosystem. ____

e. All ecosystems are man-made or artificial. ____

f. We can classify aquatic ecosystems by their salinity. ____

12. Look at the photos and identify the ecosystems from the box. Write down two characteristics of each ecosystem.

tropical rainforest tundra savannah Mediterranean forest



Ecosystem a. _____

Ecosystem b. _____

Ecosystem a. _____

Ecosystem b. _____

13. Complete the table.

	DESERTS	TUNDRA	TROPICAL RAINFORESTS
climate			
flora			
fauna			

14. Match the plant species to the ecosystems

- | | |
|-----------------|------------------------|
| 1. grasses | a. tundra |
| 2. lichens | b. forest |
| 3. cacti | c. savannah |
| 4. orchid | d. tropical rainforest |
| 5. pine trees | e. desert |
| 6. wildflowers | f. steppes |
| 7. small shrubs | g. prairies |

- | |
|-----------|
| 1. - ____ |
| 2. - ____ |
| 3. - ____ |
| 4. - ____ |
| 5. - ____ |
| 6. - ____ |
| 7. - ____ |

15. Match the following organisms to their ecosystems.

- | | |
|-------------------|------------------|
| 1. oyster catcher | a. rocky shores |
| 2. sea anemone | b. open ocean |
| 3. otters | c. lake |
| 4. sharks | d. sandy beaches |
| 5. ducks | e. rivers |

- | |
|-----------|
| 1. - ____ |
| 2. - ____ |
| 3. - ____ |
| 4. - ____ |
| 5. - ____ |

16. Complete the sentences with the words from the box below.

eagles	freshwater	flowing	rainforests
lakes	greenhouses	man-made	sunlight

- a. Mediterranean forest fauna includes _____, foxes, lynx, hawks and rabbits.
- b. Lakes and ponds are _____ aquatic ecosystems.
- c. Rivers and streams are _____ freshwater ecosystems.
- d. Rocky shores are marine ecosystems in which _____ allows algae to grow.
- e. Warm temperatures all year are typical of _____ .
- f. Ponds are smaller than _____ and don't have waves.
- g. Farmlands, _____ and parks are artificial terrestrial ecosystems.
- h. Aquariums are _____ aquatic ecosystems.

THINK

Answer the following questions. Use full sentences and be careful with your handwriting.

17. Look at the photographs and answer the questions.



Which terrestrial ecosystem is more diverse: forests or steppes? Explain.

18. A volcanic island has just formed. Can it be considered an ecosystem? Explain. _____



19. Do plants and animals use light for the same functions? What about air?

20. In some species, individuals sometimes look very different from one another.

Can you think of a species that this is true for? _____

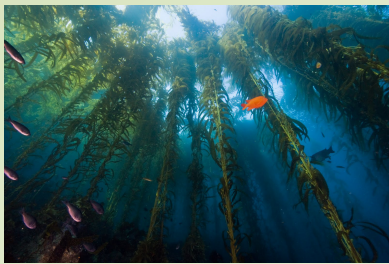
21. Do you think the soil type is an important factor in terrestrial ecosystems?

Why? Why not? _____

DID YOU KNOW?

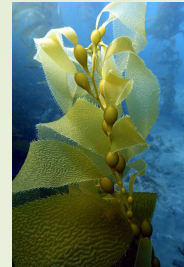
Underwater Forests

Read the following text about underwater forests. Then, answer this question: What is kelp? How does it keep upright?



Just as there are tropical rainforests on land, there are also ocean forests known as kelp forests. These underwater forests can be found in all oceans, ranging from polar to tropical environments. They mainly consist of kelp, a large brown algae that

can rapidly grow to more than 30 metres in height. Kelp anchor to the rocky oceans floor and grown towards the water's surface, looking for light. In order to keep upright, kelp have gas bladders which float in the water.

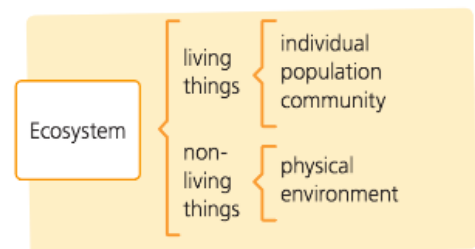


Kelp forests are some of the richest and most dynamic ecosystems on the planet. They are home to many other seaweeds, fish, molluscs, crustaceans, sea urchins and marine mammals, such as sea otters and seals.

Think. Why are kelp forests considered tremendously rich ecosystems?

LET'S WORK TOGETHER

- ✓ **Work with a partner. Talk about the components of an ecosystem. Use the diagram to help you.**



✓ Look at the pictures. What type of ecosystem do they show? Justify your answers



a. _____

b. _____

c. _____

✓ Work with a partner. Read text you have been given and complete the corresponding information in the box. Then ask your friend about his/her text so you can complete the missing information in the other column. Finally, exchange the text and check all your information is correct.

	Timanfaya National Park	Picos de Europa National Park
name of the park		
location		
year founded		
landscape		
animals		
plants		

SHOW YOUR SKILLS

Choose **ONE** of the following projects

➤ **Deserts**

Search the Internet for information about how lizards interact with the physical environment and other living things in deserts. Write a short story with illustrations.

➤ **Deep Sea**

Search the Internet for information about creatures of the deep sea. Prepare a presentation.

➤ **World deserts and Rainforests**

Find out the names of the biggest deserts on Earth. Locate them in the continents they are found in by colouring them in a world map. Now look for the world's main areas of rainforests. Use another colour to locate them in your world map. Why do you think it is so important to protect and preserve rainforests?

Timanfaya

In 1974, the volcanic area of Timanfaya in Lanzarote (Canary Islands) became a national park. Even though there has been no volcanic activity since 1824, the park has an amazing volcanic landscape. There are different species of animals in the park such as Canarian Shrews, geckos, Atlantic lizards, sea hawks and Barbary falcons. There are no trees because the park is very dry, however there are more than two hundred other plant species, including lichens and mosses, which can survive in such difficult conditions.

Picos de Europa

The Picos de Europa National Park, established in 1918, was the first national park in Spain. It is located in northern Spain, only 20 kilometres inland from the coast. Its climate is humid and rainy due to the proximity of the sea. The park has a mountainous landscape, with more than 200 peaks higher than 2000 metres. The park is home to a great variety of animals, such as the wood grouse, the bearded vulture, the chamois and the Iberian brown bear. Plant species include beeches, pine trees and hazels.