



1 INVESTIGATING AROUND THE SCHOOL



Now we are ready to apply what we have learned about ecosystems. Is there any ecosystem near your school? Let's find out and make a poster.



WHAT WE WANT TO FIND OUT

Is this area an ecosystem?

STEP 1: ORGANISE YOUR WORK

1 Identify an area you want to work on near the school.

AREA: _____

2 In groups of four, decide on a role for each person.

ROLES	NAMES and TASKS
The photographer/ the illustrator	_____ will be in charge of taking the photos or drawing pictures to illustrate the investigation.
The graphic illustrator	_____ will be in charge of the visual elements such as mindmaps or diagrams.
The researcher	_____ will look for information.
The editor	_____ will check that the language used is adequate and that the pronunciation is correct.
All members in the group will observe, take down notes and make the poster.	

3 What material do you need for your investigation? Write it down.

WE NEED	WHO IS RESPONSIBLE
	The photographer/the illustrator
	The researcher
	The graphic illustrator
	The editor





STEP 2: MAKE A HYPOTHESIS

- 4** In groups, decide if your area is an ecosystem. Justify your answer.

WE THINK THAT _____ ,
BECAUSE _____ .

- 5** List the biotic and abiotic components you think you will find in the area.

Living things (biotic components)

Our predictions	Check your predictions

Non-living things (abiotic components)

Our predictions	Check your predictions



STEP 3: INVESTIGATE

6 With your teacher, visit the area you chose.

During the fieldwork, you should:

- Make accurate observations
- Take photos or draw pictures of the biotic and abiotic elements
- Try to count them
- Measure distances between them
- Take down notes

STEP 4: CHECK YOUR PREDICTIONS

7 Once back at school, check your predictions in Activity 5.

8 Draw a picture showing the relationships between the different things in the ecosystem.





9 Identify a *consumer*, a *producer* and a *decomposer*. Draw a food chain.

10 Identify the biggest animal population and the biggest plant population.

STEP 5: CONCLUSIONS

11 Draw some conclusions in relation to the initial question.



WHAT WE WANT TO FIND OUT

Is this area an ecosystem?

ANSWER

The _____ is an ecosystem because _____



STEP 6: MAKING A POSTER

12 What could threaten the balance of the ecosystem you are studying?

Threat	What are the consequences?	Are the consequences positive or negative?
A road has been built across the ecosystem.		

13 Write down the negative consequences in the table below. Decide which solutions are possible (prevention, protection, action plan, etc). Who can help you take action?

Negative consequences	Possible solutions	Help from





- 14** Now, make your poster. Use your pictures and notes. Write the data for each picture as in this example.

	Name of the species	Common ant
	Size	1.5 cm approx.
	Position in the food chain	primary consumer
	They eat	leaves, seeds, etc.
	They are eaten by	birds, frogs, etc.

Your poster should have

- A title
- The biotic and abiotic components in the ecosystem
- How things are related to each other
- Food or web chains
- A possible threat or danger
- Possible solutions to the threat or problem
- Names of the authors

- 15** In groups, decide who will present the information. Present the poster to the class.

Part	Content	Name
TITLE and NAMES	Title of your presentation and names of all the members in your group.	
INTRODUCTION	Name and short description of the ecosystem and the possible threat it faces.	
DESCRIPTION OF ECOSYSTEM	Description of the ecosystem and how its components are related to each other.	
POSSIBLE CONSEQUENCES	Explain the consequences of such a threat.	
CONCLUSION	Possible solutions and why they are necessary.	



MY SCIENCE PORTFOLIO



This portfolio is for you to keep the record of your learning. You will include:

- 1 The objectives of the module linked to the activities that cover each one of them
- 2 Opinions about the tasks
- 3 Final assessment results
- 4 Peer assessment on the final task
- 5 Self assessment of the work done

1 Objectives and activities

Objectives	Activities

2 Portfolio cards

Title of the activity _____

This activity is important for me because _____



Title of the activity _____

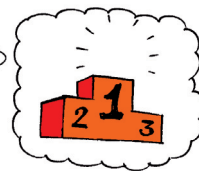
This activity was a big challenge for me because _____





Title of the activity _____

I'm very proud of my work because _____



At the beginning I thought that _____

And now I know that _____



3 Final test

Mark	Comments	Improvement

4 Peer assessment and oral presentation

	Very Good	Good	Needs improvement	Recommendations
The information on the poster is organised and clear.				
The images are attractive and appropriate.				
The oral presentation is clear and understandable.				
The group members remembered what to say.				





5 Self Assessment. What do I know? What can I do?

I can...	Very Well	Well	Needs improvement
I can define what a consumer, a producer and a decomposer is.			
I can establish links between consumers, producers and decomposers.			
I can identify features of living and non-living things.			
I can identify the factors that can influence the balance in an ecosystem.			
I can describe the basic conditions living things need to survive.			
I can identify the relationship between living and non-living things in an ecosystem.			
I can analyse how all organisms, including humans, cause changes in their ecosystems and how these changes can be beneficial, neutral or detrimental.			
I can use simple texts to find information.			
I can work with my classmates in a collaborative way: <ul style="list-style-type: none">• I can put forward my own ideas.• I can contribute to the group discussion.• I can draw conclusions.• I can listen to my group mates.			
I can communicate in a scientific way what I have learned about ecosystems.			
I can talk and write in English about ecosystems.			
I can do the tasks with interest and commitment.			
I can suggest how I can improve my work.			

6 Things I want to improve in the future





GLOSSARY



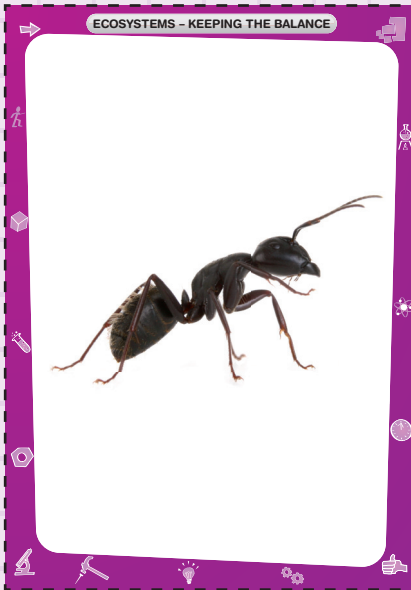
alive	living, not dead
anchor	to hold something or someone firmly
average	the result of adding some quantities together and then dividing by the number of quantities added ($3+3+2+1+1=10$ then $10:5=2$)
balance	a state of equilibrium
be (food) for	to be someone's or something's nutrients
break down	to divide into very small parts
danger	risk, the possibility that something bad or harmful can happen
dead	not alive any more
decompose	if a dead person, animal, or plant decomposes, it decays and is gradually destroyed
dirt	soil or rough ground as a result of a decomposing process
get energy from	to obtain nutrients from something or somebody
grow	to become bigger, taller or older as time passes
harmful	causing damage or injury
hunt	to chase and kill wild animals
make own food	to produce or create your own nutrients
need	something that is necessary to have or do
nutrient	any substance which living things need in order to stay alive
pollution	damage caused to water, air, etc. by harmful substances or waste
produce	to make or grow something
regenerate	to grow or replace lost or injured parts
relate to (each other / or others)	to have a connection with someone or something
repopulate (a forest)	to plant new trees and plants in a forest that has been previously cut down, burnt or deforested
soil	The ground where plants grow. The top layer of earth that plants grow in
survive	to continue to live after almost dying because of an adversity, like an accident or illness
threat	someone or something that is likely to cause harm or damage
type	a group of people or things that have similar qualities
waste	unwanted matter or material of any type. What remains of a material after it has been used



[illegible]



FLASHCARDS





ECOSYSTEMS – KEEPING THE BALANCE

blackberry
bush

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ant

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air

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frog

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fox

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earthworm

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lizard

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ladybird

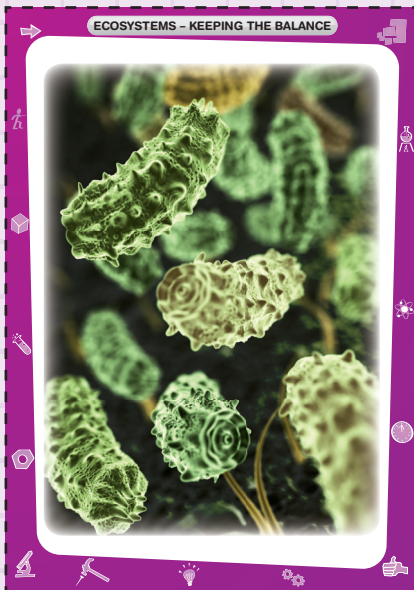
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holly

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nightingale

mushroom

microorganism

pine tree

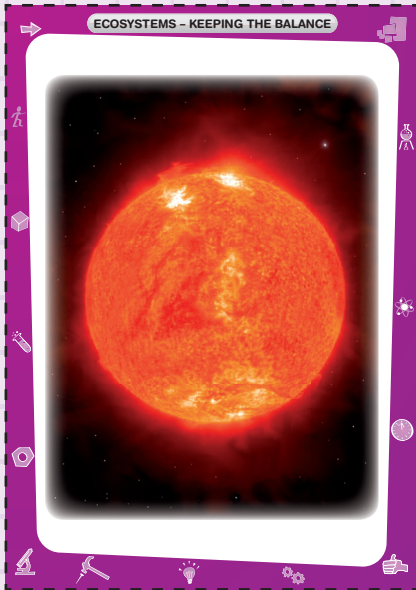
owl

oak

snake

salamander

rock





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squirrel

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spider

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soil

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wild boar

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water

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sun

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