

COURSE PLANS

UNIT 3

1. BASIS

This unit focuses on ecosystems and the relationships between the different kingdoms of living beings and changing factors that affect their survival, as well as the impact of man on the planet. Pupils will learn about the elements that characterise ecosystems; feeding and other relationships; the adaptations of organisms in an ecosystem; the impact of man on ecosystems. This unit includes two projects: investigating an ecosystem (the Arctic) and environmental improvement.

November December

2. METHODOLOGY

As pupils study this unit, they will broaden their knowledge of ecosystems, their components and classification. They will be able to define biocenosis, identify relationships in ecosystems and understand the adaptations of living beings. They will learn about renewable natural resources and understand the impact of man on ecosystems, thereby developing their awareness of environmental problems and sustainable development.

CONTENTS	EVALUATION CRITERIA	LEARNING STANDARDS
<ul style="list-style-type: none"> • Ecosystems and their elements. • The biotopes of ecosystems. Types of ecosystems according to their biotopes. • The biocenosis in ecosystems. • Relationships in ecosystems. • The balance in an ecosystem. • Description, in real life and through pictures, of ecosystems and their elements. 	1. Understand what an ecosystem is, its component parts and types of ecosystems according to biotopes.	1.1. Define ecosystem. Name its elements. Define biotope. 1.2. Write a classification of ecosystems according to their biotopes and describe, in real life and through pictures, the elements that make up the biotopes of different ecosystems.
	2. Understand the concepts of population, biocenosis, relationships in ecosystems, balance and causes that may alter this balance.	2.1. Define biocenosis. Identify and describe relationships in ecosystems. Define balance in an ecosystem and describe causes that alter it.

<ul style="list-style-type: none"> • Identify and describe actions that change the balance in an ecosystem. • Feeding relationships in ecosystems. Producers, consumers and decomposers. • Relationships in the ecosystems between beings of the same species: gregarious associations, families and societies. • Relationships in the ecosystems between beings of different species: mutualism, commensalism and parasitism. • Anatomical and behavioural adaptations of living beings in their ecosystems. • Characteristics of the development of humanity in relation to the impact on the planet's ecosystems. • Sustainable development and its basic principles. • Guidelines for the study and description of an ecosystem. • Respect for nature and a positive attitude towards the conservation balance in the ecosystems. • Understanding information, learning vocabulary, using language as a tool for communication and keeping a positive attitude towards reading. 	<p>3. Identify and describe different feeding relationships in ecosystems and classify living beings according to their modes of feeding in the ecosystem.</p>	<p>3.1. Define and describe feeding relationships. Define producer, consumer and decomposer, and identify and name some examples of producers, consumers and decomposers in different ecosystems.</p>
	<p>4. Be aware of other relationships between living beings of the same ecosystem: between beings of the same species and between creatures of different species.</p>	<p>4.1. Define, name and identify different groups of animals of the same species: gregarious associations, families and societies, and associations between individuals of different species: mutualism, commensalism and parasitism.</p>
	<p>5. Understand adaptation and identify different types of adaptations of living beings.</p>	<p>5.1. Define adaptation and distinguish between anatomical and functional adaptations. Identify and describe different adaptations of living beings, both of the surrounding area and others presented through pictures.</p>
	<p>6. Identify renewable natural resources, be aware of human actions on ecosystems and their consequences, and understand the idea of sustainable development and the most important characteristics on which it is based.</p>	<p>6.1. Define natural resources, name renewable resources and describe the negative characteristics of human development on the planet.</p> <p>6.2. Define sustainable development and describe the basic principles to be followed to achieve it.</p>
	<p>7. Develop awareness of environmental problems and promote attitudes of saving resources.</p>	<p>7.1. Describe characteristics of the planet that make life possible on it. Define biosphere and biodiversity.</p> <p>7.2. Show respect for nature and propose actions for the conservation balance in the ecosystems.</p>

<ul style="list-style-type: none"> • Knowledge of and use of mathematical operations and mathematical strategies to resolve problems. • Knowledge and responsible use of ICT to investigate ecosystems. • Using strategies to process information and applying it to different contexts. • Initiative and perseverance in tackling problems and defending opinions, developing attitudes of respect and collaboration when working in a group. 	8. Understand information, acquire vocabulary about ecosystems, express knowledge and opinions both orally and in writing and show interest in reading texts and exploring to discover more about natural areas.	8.1. Understand information, acquire vocabulary about ecosystems, express knowledge and opinions both orally and in writing and show interest in reading texts and exploring to discover more about natural areas.
	9. Use and apply mathematical elements, operations and strategies to solve problems about producers, consumers and decomposers.	9.1. Use and apply mathematical elements, operations and strategies to solve problems about producers, consumers and decomposers.
	10. Know and use ICT in a responsible way and use strategies to process information and apply it to different contexts, actively participating in their own learning process.	10.1. Obtain and organise information, working with the unit structure, and using digital resources with interest and responsibility.
	11. Show initiative and perseverance in tackling problems and defending opinions, developing attitudes of respect and collaboration when working together in a group.	11.1. Show initiative, accept mistakes when doing self-evaluation, persevere in reinforcement tasks and actively participate in cooperative learning.

3. COMPETENCIES

COMPETENCIES	CONTENTS AND ACTIVITIES BY COMPETENCY
Linguistic competency.	Expressing information orally in a clear and orderly manner when presenting their part of the group work on the ecosystem close to them. Reading the initial reading and the recommended texts in the reading plan.
Mathematical competency and basic competencies in Science and Technology.	Committing to the responsible use of natural resources to promote sustainable development. Creating a mural summarising actions to contribute to sustainable development.
Digital competency.	Understanding messages developed in different codes: explaining about the different beaks of birds from the video 'What do you think? Why do birds have such different beaks?'
Learning to learn.	Showing awareness of the learning process by finding information about animal species. Applying strategies for improving creative, critical, emotional, and interdependent thinking by thinking about and giving an opinion on the management of waste. <i>Multiple Intelligences:</i> Carrying out a teamwork project on the natural environment of the community, to develop different multiple intelligences (linguistic, natural, scientific, interpersonal ...).
Social and Civic competencies.	Designing a scale of values for themselves and acting accordingly by proposing actions for the conservation of the balance of the ecosystems and to contribute to sustainable development. <i>Values:</i> Learning to behave correctly according to different values. Applying the 'rule of the three Rs'.
Sense of initiative and entrepreneurial spirit.	Showing personal initiative to initiate or promote new action by proposing solutions to repair the damage caused in damaged ecosystems
Cultural awareness and expression	Appreciating the beauty of artistic expression and in everyday things. Taking photos of the natural environment and animals when going on the trip proposed in the science workshop or PD.