



**GRADE:**

5<sup>th</sup>

**SUBJECT:**

Science

**Term:**

II

**TEACHER:** Miss Marcela Ávila

**UNIT: Unit 4: Living Things Grow and Reproduce**

**OBJECTIVES:** At the end of the term, students will be able to:

- Explain characteristics of vertebrates and invertebrates.
- Explain the communication between animals.
- Describe the stages of the life cycle of living things.

**DESCRIPTION:**

During this unit, the students are going to be reading the book and watching videos in the platform to comprehend and explain the different characteristics of living things like vertebrates, invertebrates, and their life cycle. Also, they will comprehend the communication between animals in their environment by watching some examples. At the end, the students are going to observe images and read the textbook to gather information to comprehend how living things adapt to the changes in their environment, they will demonstrate examples in posters.

Nº	CONTENTS	ACHIEVEMENT INDICATORS
1	Have a backbone? Vertebrate Spineless Invertebrates	Identifies and describes vertebrate and invertebrate animals.
2	Communication is the key	Recognizes and explains how animals communicate between each other.
3	Stage of life	Identifies and describes the stages of human beings.
4	Conception and development of the humans.	Describes the causes and consequences of sexual reproduction in adolescence.
5	It's time for a change Complete and incomplete metamorphosis	Explains the stages of complete and incomplete metamorphosis and classifies animals accordingly.
6	Adaptations Form and function Eat or be eaten On your best behavior	Classifies appropriately and explains physical and behavioral adaptations on animals.
7	The circle of life Living things change	Explains how life cycle is related to its habitat and how living things change.



**UNIT: Unit 5: Ecosystems**

**OBJECTIVES:** At the end of the term, students will be able to:

- Explain the characteristics of ecosystems and the changes of living things produce in them.

**DESCRIPTION:**

During this unit, the students are going to be working with texts and videos related to ecosystems. They are going to work individually to identify and explain all the living things in the ecosystems and how their behavior can impact them to make changes in the environment. It will be relevant to work with the platform to gather and comprehend important details about the ecosystems. Also, they are going to work individually or in groups to explain orally the information related to habitats and diversity while showing visual materials. The use of graphic organizers will be relevant to complete some activities.

Nº	CONTENTS	ACHIEVEMENT INDICATORS
1	What is an ecosystem?	Recognizes and explains what makes up an ecosystem, including biotic and abiotic parts, and how the ecosystem is related to its living things.
2	Populations and communities?	Compares and contrasts populations and communities and explains the relationships between them and the environment.
3	Find your niche Habitat	Explains the relationships between habitat and niche; and how niche is impacted by the habitat.
4	Diversity	Describes impacts of diversity on ecosystems.
5	Change comes naturally	Explains how changes on ecosystems impact organisms living there.
6	Next, please	Describes the succession change on organisms within an ecosystem.
7	For better or worse	Explains how changes to an ecosystem such as beaver dams and red tides impact on animals and even humans.
8	Invasive species	Recognizes and explains the types of invasive species and how they impact the ecosystem.



9	Human change the environment	Explains and exemplifies how human activities impact ecosystems.
10	Gone Extinction	Identifies and explains causes and effects of changes on ecosystems.

## UNIT 6: Energy and Ecosystems

**OBJECTIVES:** At the end of the term, students will be able to:

- Describe the stages of the carbon dioxide oxygen cycle in the photosynthesis process.
- Explain the importance and the role of different types of animals like herbivores, carnivores, omnivores, scavengers, and decomposers in a life cycle.

### DESCRIPTION:

During this unit, the students are going to work with the textbook and videos to comprehend the information about the carbon dioxide oxygen cycle through the photosynthesis process, they will create an experiment to evidence the information.

Also, the students are going to work individually or in groups to complete activities about comparing and contrasting living things like carnivores, herbivores, omnivores, scavengers, and decomposers to understand how they get their energy. They will use graphic organizers and models to state the ideas. Last, they are going to explain orally or written the importance of food chains and food webs in an ecosystem showing examples.

Nº	CONTENTS	ACHIEVEMENT INDICATORS
1	The carbon dioxide-oxygen cycle Photosynthesis	Explains the carbon dioxide-oxygen cycle through the photosynthesis process.
2	Eat your vegetables Producers and consumers	Compares and contrasts producers and consumers, and the process how they get energy.
3	You are what you eat Herbivores Carnivores Omnivores	Explains the differences between the diets of herbivores, carnivores and omnivores and how they become either predator, prey or both.
4	Break it down, clean it up Scavengers and decomposers	Identifies and describes the role of scavengers and decomposers in the environment.



5	Food chains	Models and explains how organisms obtain energy through food chains.
6	Food webs	Describes the importance of food webs and how it impacts an ecosystem.
7	At the top Energy pyramid	Explains what an energy pyramid is and how it works.

### UNIT 7: Natural Resources

**OBJECTIVES:** At the end of the term, students will be able to:

- Describe the importance and the use of renewable and nonrenewable resources in different places.
- Explain the use and how to conserve natural resources like water, soil, heat, and electricity.

**DESCRIPTION:**

During this unit, the students are going to gather information from the textbook, platform, and videos from other resources to comprehend the importance of renewable and nonrenewable resources. Also, they are going to describe and demonstrate through experiments some ways to conserve resources in the community. They are going to prepare oral presentations and use posters.

Nº	CONTENTS	ACHIEVEMENT INDICATORS
1	Natural resources Renewable and nonrenewable resources	Explains the importance of renewable and nonrenewable resources. 7.1.1
2	Resources on the move Using resources at home	Identifies and explains how natural resources are moved from place to place to meet people's needs, and how they are used once they have them at home.
3	What's that smell? Pollution	Recognizes and describes the main problems that affect the environment as a consequence of exploitation of resources.
4	It's cool to conserve It's not just dirt! Wonderful water	Recognizes and proposes ideas to conserve resources, such as water, in their country.
5	Who turned out the light?	Explains the importance of heat and electricity at home and how it is conducted.



### Unit 8: Changes to Earth's Surface.

**OBJECTIVES:** At the end of the term, students will be able to:

- Analyze and explain the different types of erosion that affect the Earth's surface.
- Describe how the plate tectonics compose and affect the Earth's surface.
- Describe how volcanoes change the Earth's surface.

**DESCRIPTION:**

During this unit, the students are going to comprehend how erosion affects the Earth's surface, they will read the textbook and watch videos. Also, they will gather supporting details through the platform, so they can work individually or in groups to explain the different types of erosion that affect the soil. At the end, students are going to understand the impact of volcanoes and plate tectonics on the Earth's surface. They will work with in groups or individually to prepare oral presentation and create posters to explain the changes on the Earth's surface.

Nº	CONTENTS	ACHIEVEMENT INDICATORS
1	What can break a boulder? Weathering Rocks on the move Erosion	Explains what weathering and erosion are, and how they can change rock and Earth's surface.
2	Blowing in the wind	Recognizes and explains effects that wind has on Earth's surface.
3	Ice carvings Can waves cut caves?	Describes how glaciers and water cause landforms.
4	Do plants protect soil?	Identifies and explains the importance of plants to soil, and the consequences it brings up to humans when removing all the plants from an area.
5	Inside the earth Layers of Earth	Recognizes and describes the inner parts of the planet.
6	Plate tectonics	Describes the role and effects of the plate tectonics and plate boundaries on Earth.
7	Earthquakes	Describes how earthquakes are form, the impacts on Earth's surface, and how they are measured.
8	Volcanoes	Describes the types of eruptions that volcanoes provoke, and how they are formed.



**UNIT: Unit 9: The Rock Cycle**

**OBJECTIVES:** At the end of the term, students will be able to:

- Explain and recognize the different types of minerals.
- Recognize and explain the changes that a rock can have in its cycle.

**DESCRIPTION:**

During this unit, the students are going to read the textbook, work with the platform, and watch videos from different resources to identify and explain different types of minerals and the rock cycle. They are going to describe the characteristics of rocks like igneous, sedimentary, and metamorphic rocks how they form. The use of graphic organizer will be essential to state the ideas. At the end, students are going to describe and demonstrate the different ways that people use rock by illustrating the ideas.

Nº	CONTENTS	ACHIEVEMENT INDICATORS
1	What are minerals? Which mineral is which? Unique properties of minerals	Identifies and explains what minerals are, how they form, their physical properties, and how they can be sorted.
2	Igneous rock	Recognizes and explains the physical properties of igneous, sedimentary, and metamorphic rocks, and how they form.
3	The rock cycle	Identifies and describes the rock cycle.
4	Uses of rock	Recognizes and explains the uses of rock in the daily life.



## Unit 10: Fossils

**OBJECTIVES:** At the end of the term, students will be able to:

- Explain the characteristics of fossils and their importance to new generation and scientists.
- Explain the characteristics of Mesozoic and Paleozoic era through fossils.

**DESCRIPTION:**

During this unit, the students are going to recognize and describe different types of fossils and their importance to the new generation and scientists. They will create models of fossils and use graphic organizers to state the ideas correctly. Then, the students are going to read the textbook and work with the platform to describe how the changes in the environment affect living things and how they can be extinct because of the weather and other factors.

Nº	CONTENTS	ACHIEVEMENT INDICATORS
1	Traces of the past Fossil formation Fossils that burn How coal forms How oil and natural gas form	Recognizes and explains different types of fossils such as fossil fuels, and how they form.
2	What fossils tell us How rocks and fossils tell a story Rock layers of the Grand Canyon Big changes on Earth	Describes the importance of rocks and fossils to new generations, and how these help scientists make research regarding changes on Earth.
3	Divisions in time Mesozoic Era Paleozoic Era	Recognizes and describes the characteristics of ancient ecosystems.
4	Changing environment	Explains how changes in the environment affect living things there.
	The great die offs	Recognizes and describes the reasons why extinction can happen.



**UNIT: Unit 11: Earth's Oceans.**

**OBJECTIVES:** At the end of the term, students will be able to:

- Recognize and explain the characteristics of oceans like floor, motion, and changes that can occur on the Earth's surface.

**DESCRIPTION:**

During this unit, the students are going to describe oceans' location and why people are not able to explore them totally through oral and written ideas. Also, they are going to explain orally or written how the ocean floor looks like, and the process of how volcanic eruptions create islands. After that, students are going to illustrate how the ocean waves, current, and tides to describe their characteristics and explain how to prevent that the ocean carry sand away. They will gather more information when working with the platform. At the end, they are going describe orally or written the importance and characteristics of microorganisms in the ocean.

Nº	CONTENTS	ACHIEVEMENT INDICATORS
1	That's a lot of water!	Describes oceans locations and what they cover on Earth.
2	Same ocean, different water	Identifies and describes the reasons why the ocean has not been totally explored, and how water differs in different parts.
3	Is the ocean floor flat? Islands come and go	Describes what the ocean floor looks like, and how volcanic islands form.
4	Catch a wave Go with the flow The turning tides	Describes how ocean waves, currents, and tides form.
5	Changing shorelines	Locates and describes solutions to avoid that the ocean carry sand away.
6	Where the ocean meets the land Intertidal zone	Describes what the intertidal, near-shore, and open ocean zones are, and what living things can be found in those ecosystems.
7	The most important organisms you never see	Identifies and describes microorganisms that live in the deep ocean.

Reinforcement

Second Term Evaluation