



**Academia Santa Rosa de Lima
Bayamón, P.R.
Science Syllabus 2023-2024
6th Grade Bilingual**

Teacher: Yanitza Rivera
Required Textbook: EduSystem
E-mail: yriviera@asrpr.org

**6th Grade Science
Overview
2023 – 2024**

I. Description

This document is designed to provide parents/guardians/community an overview of the curriculum taught in the fifth grade science classroom. This document supports families in understanding the learning goals for the course, and how students will demonstrate what they know and are able to do. The units objectives describe ways in which students are expected to engage in the content. The unit objective weave the other knowledge and skills together so that students may be successful problem solvers and use knowledge learned efficiently and effectively in daily life.

The course enhances and expands the student's abilities and skills in the following areas:

- integrated for Science, Technology, Engineering and Mathematics (STEM)
- analysis
- critical thinking
- problem solving
- collaborative team building

II. Outline of contents

Grading Period 1		
Unit 00: Let's Investigate Science		
Lesson	Objectives	Date
01: <i>Scientific Knowledge</i>	<p>At the end of the lesson, the student will:</p> <ul style="list-style-type: none"> ▪ Identify information as scientific or non-scientific data. ▪ Distinguish what science is from what pseudoscience 	August
02: <i>Scientific Method</i>	<p>At the end of the lesson, the student will:</p> <ul style="list-style-type: none"> ▪ Describe the history and origin of the scientific method. ▪ Identify Galileo's role in the development of modern science. ▪ Describe the characteristics of the scientific method. ▪ Explain the stages of the scientific method. <p>Develop a simple investigation following the scientific method.</p>	
03: <i>Scientific Research</i>	<p>At the end of the lesson, the student will:</p> <ul style="list-style-type: none"> ▪ Describe the role of technology in scientific research. ▪ Identify and explain examples of scientific fraud. ▪ Distinguish reliable sources of information from ones that are not. ▪ Identify the different classifications into which scientific research can be grouped. ▪ Identify the main characteristics that scientific research must have 	

Grading Period 2

Unit 01: Classification of living things

Lesson	Objectives	Date
01: <i>Characteristics of living beings</i>	At the end of the lesson, the student will: <ul style="list-style-type: none">▪ Distinguishes between living beings and matter.▪ Mentions the characteristics of living beings.▪ Describes the processes of life.▪ Describes the process of photosynthesis.▪ Explains the relationship between mitosis and growth.▪ Points out the differences and similarities between asexual and sexual reproduction.▪ Compares the structures of a plant and animal cell.▪ Build models of a plant cell and animal cell	September
02: <i>The kingdoms of nature</i>	At the end of the lesson, the student will: <ul style="list-style-type: none">▪ Mention and describe the five kingdoms in which organisms are classified.▪ Define the concepts of autotroph and heterotroph.▪ Explain the importance of classifying living things▪ Describe the levels that are used to classify living things▪ Develop a classification diagram	

Grading Period 3

Unit 01: Classification of living things

Unit 02: Reproduction of living things

Lesson	Objectives	Date
<p>03: <i>Our surroundings are full of microorganisms</i></p>	<p>At the end of the lesson, the student will:</p> <ul style="list-style-type: none">▪ Define what a microorganism is.▪ Explain why some bacteria are beneficial and others are harmful.▪ Mention and explain the importance of vaccines and antibiotics to fight diseases.▪ Describe the process of fermentation▪ Mention examples of food that are prepared through fermentation▪ Mention and explain the methods used to sterilize food	
<p>01: <i>Microorganism reproduction</i></p>	<p>At the end of the lesson, the student will:</p> <ul style="list-style-type: none">▪ Define prokaryotes and eukaryotes▪ Describe the forms of bacteria reproduction▪ Describe the form of protistic reproduction▪ Explain reproduction of fungi▪ Describe characteristics of viruses▪ Contrast the types of reproduction microorganisms	<p>October</p>

Grading Period 3

Unit 02: Reproduction of living things

Lesson	Objectives	Date
03: <i>Animal reproduction</i>	At the end of the lesson, the student will: <ul style="list-style-type: none">▪ Explain the importance of animal reproduction▪ Describe the different forms of reproduction of invertebrates▪ Explain the sexual reproduction of vertebrates▪ Define the different forms of sexual reproduction▪ Illustrate examples of fragmentation, budding and binary fission	November/December

Grading Period 4

Unit 02: Reproduction of living things

Lesson	Objectives	Date
04: <i>Our marvelous reproductive system</i>	At the end of the lesson, the student will: <ul style="list-style-type: none">▪ Describe the anatomy and physiology of the female reproductive system▪ Describe the anatomy and physiology of the male reproductive system▪ Explain the process of fertilization▪ Point out the difference between zygote, blastocyte, embryo, fetus and baby▪ Describe the stages of the life cycle of a human being▪ Distinguishes between single and multiple pregnancies	January
05: <i>Inheriting traits</i>	At the end of the lesson, the student will: <ul style="list-style-type: none">▪ Explains the relationship between heredity and genetics.▪ Describes what a dominant and a	February

	<p>recessive gene is.</p> <ul style="list-style-type: none"> ▪ Difference between phenotype and genotype. ▪ Explains the concept of incomplete dominance. ▪ Explain why there are different amounts of chromosomes present in sex cells and from the rest of body cells. 	
--	---	--

Grading Period 5		
Unit 02: Reproduction of living things		
Unit 03: A journey through the body		
Lesson	Objectives	Date

02: <i>Inheriting traits</i>	<p>At the end of the lesson, the student will:</p> <ul style="list-style-type: none"> ▪ Able to construct and solve Punnet Square problems 	March
02: <i>The respiratory system</i>	<p>At the end of the lesson, the student will:</p> <ul style="list-style-type: none"> ▪ Distinguish between internal and external respiration. ▪ Explain the relationship between respiration and digestion. ▪ Identify the structures of the respiratory system. ▪ Describe the function of the parts or organs of the respiratory system. ▪ Describe the process of inhalation and exhalation. 	March/April
03: <i>The circulatory system</i>	<p>At the end of the lesson, the student will:</p> <ul style="list-style-type: none"> ▪ Describe the function of the circulatory system. 	April/May

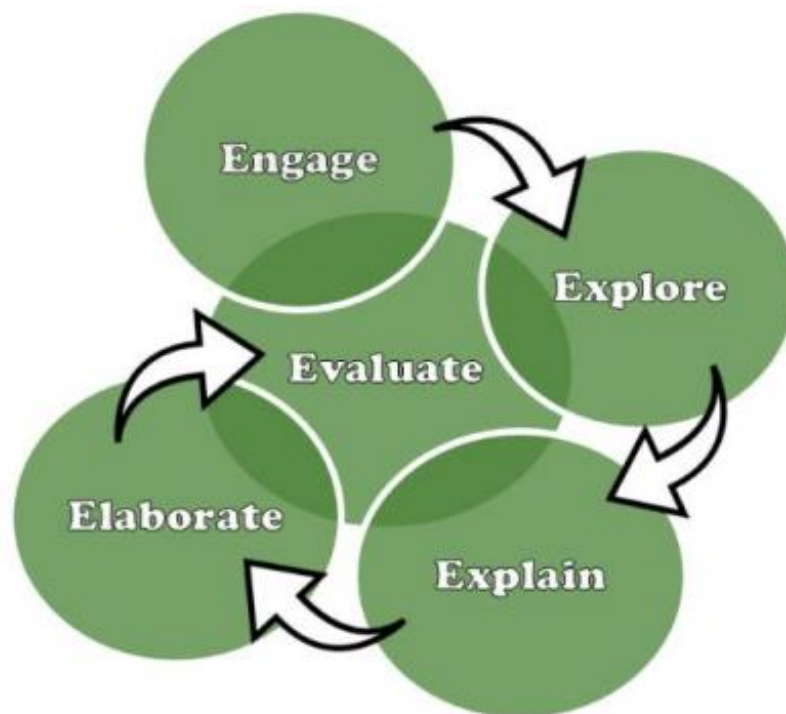
Note: Test dates, test fees, and the order presented may be subject to change, according to student needs.

III. Reference books and teaching materials

- Module: Digital Edusystem Platform
- Curriculum Framework: Science Program
- Content Standards: Science
- Printed material
- Educational Links
- Technology equipment (computer, radio, projector)

IV. Instructional model

The structure, guidelines or model in which students engage in a particular content that ensures understanding of that content.



- It is based on the constructivist learning theory, which states that learners build or construct new ideas based on their experiences.
- It represents a recursive cycle of cognitive stages in inquiry-based learning.
- Stages are intended to be completed sequentially; however, you may revisit a stage more than once during the 5E process.
- • Typically, NOT all five stages would be experienced in a single classroom period, but all five would certainly be embedded in a series of lessons that would develop a particular concept, lasting days or weeks.
- It is used to develop conceptual understanding over time with each stage building on the previous
- Stage.

V. Course requirement

- Know the criteria and the evaluation process on which your academic work will be graded.
- Bring the required materials to the classroom.
- Attend the Academy regularly and on time.
- Attend with complete and clean school uniform according to the student handbook.
- Bring written excuses when absent.
- Perform their academic duties responsibly.
- Make up assignments and evaluations covered in class when absent.
- Keep the classroom clean and their work area organized.
- Take care of classroom materials and equipment.
- Use appropriate and respectful language.
- Bring notices, permission slips, or other materials signed by their parent and/or guardian (forged signatures are prohibited).

VI. Consequences hierarchy

1. Verbal Warning by Teacher
2. Student/Teacher Conference
3. Friendly Discipline Referral
4. Parent Phone Call
5. Parent/Teacher Conference
6. Official Discipline Referral

Exception: *There are circumstances in which the teacher may write a direct referral without parent contact. These include fighting, cursing, and/or disrespect to teacher.*

VII. Special Notice

Institutional Norms (*Should not be altered*)

- Evaluations are reported to students five days in advanced.
- No evaluations given on Mondays.
- The teacher will have a period of ten working days to report the grades obtained to the students.

Revised by: June 2023

- No assignments given for weekends, or after a long rest period.
- The number of exams per day can't exceed two per day.

Note: This document may be subject to various changes and modifications, considering the needs of each group.



**Academia Santa Rosa de Lima
Bayamón, Puerto Rico
Science 6th Syllabus 2023-2024**

Syllabus Confirmation Sheet

Student Name: _____

Date: _____ Grade: _____ Group: _____

Here by I certify that I have received and read the Science Class Syllabus for the
2023-2024 school year.

Parent Name

Parent Signature

Parent or guardian email

Please return this document signed first week of class.