



**SAINT GEORGE
SCHOOL**
FOUNDED 1965



Porfirio Herrera No. 6, Ensanche Piantini.
Santo Domingo, D. N. Rep. Dominicana



T. 809 562 5262 F. 809 562 5015
www.stgeorge.edu.do

Physical Science, 2nd Form

Teacher: Mrs. Miguelina Coronado

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Academic year: 2011-2012

1. INTRODUCTION AND DESCRIPTION OF COURSE :

Science for 2nd Form includes the study of physics and chemistry. During the first semester we will study motion, forces, and the different kinds and forms of energy. During the second semester we will study the basic nature of matter, the organization and use of the periodic table, how matter reacts in different ways when combine, how to balance and classify chemical equations. Also, some aspects of health, and the study of farm animals in the Dominican Republic.

2. SKILLS

Learners will:

- Develop a range of inquiry skills and achieve proficiency with those skills
- Investigate and understand states and forms of energy and how energy is transformed or transferred
- Investigate and understand temperature scales, heat, and heat transfer
- Investigate and understand characteristics of sound and sound waves
- Investigate and understand the nature of light, the scientific principles and technological applications of work
- Investigate and understand the basic nature of matter and all the changes it can go through.
- Investigate and understand the organization and use of the periodic table

3. CONTENT

Physics

Introduction: Science

Scientific Method, Variables, Scientific Model, Measurement

Matter in Motion

Motion, Reference Point, Meter, Speed, Velocity, Slope,
Measuring Motion, Acceleration

Forces

Balanced forces, Unbalanced forces, Newton's Laws of Motion,
Gravity, Mass, Weight, Work

Energy

Kinetic Energy, Potential Energy, Law of Conservation of
Energy, Energy conversion and conservation, Law of
Conservation of Energy

Electricity

Electric field, static electricity, conduction, convection,
induction, static discharge,

August 29 – September 23

September 26 – October 21



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Electric current, potential difference, resistance, series circuit,
parallel circuits, electric power

The Nature of Light

Light, Electromagnetic Waves, electromagnetic spectrum,
reflection and refraction

Second Semester

Ciencias Naturales

La Tabla Periódica: Elementos de la tabla, Número atómico,
peso atómico, Regla del Octeto

El enlace Químico: Descripción de un enlace químico, Tipos
de enlace, Electrones de Valencia, Configuración Electrónica

Reacciones Químicas y sus ecuaciones: Ecuaciones Químicas,
Cambios Energéticos en la ecuaciones químicas, Leyes del
cambio químico,

Reacciones exotérmicas y endotérmicas, equilibrio químico,
Ecuaciones Redox, Balanceo de ecuaciones

Tipos de Reacciones Químicas: Equilibrio Químico, Ecuaciones
Redox, Balanceo de Ecuaciones

Salud y Enfermedad: Enfermedades Infecto-contagiosas,
Enfermedades producidas por virus, Enfermedades producidas por
bacterias, Enfermedades producidas por aguas contaminadas,
Enfermedades producidas por animales vectores

Pecuaría: Introducción, Ganadería, Aves de Corral y Conejos,
Acuicultura y Apicultura

October 24 – November 23

January 11 – February 17

February 20 – March 23

March 26 – May 15

4. TEXTBOOKS AND OTHER RESOURCES :

Core texts: Physical Science, Holt Science &Technology
Study Guide, Holt Science &Technology

* These core texts do not make up the entirety of the printed resources to be used in
the course. Other resources will include:

Physical Science, Glencoe

Laboratory Activities, Glencoe

<http://www.learner.org/interactives/parkphysics/coaster/>

<http://school.discoveryeducation.com/>

<http://www.studybulb.com/>

and others.

*Students are expected to have the following material for class:

The students must have basically a notebook, grid paper, markers, glue, scissors, and a lab
coat.

Depending on the activity the teacher will ask for other materials.

5. TEACHING STRATEGIES:

In order to fulfill the objectives of the class, many teaching strategies will be implemented,
among others we'll have lectures, group activities, class presentations, watching videos
and/or documentaries, oral presentations, research, questionnaires, definitions, problem



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solving, brain storming, organizing information in different formats (charts) and laboratory activities

6. EVALUATIONS :

The grade of the student will be based in the following aspects and correspondent percentage:

Classwork	30%
Projects	15%
Laboratory	15%
Conduct	10%
Tests	15%
Notebook organization and completeness	5%
Participation in class/Groupwork	5%
Quizzes	5%

7. OTHER REMARKS REGARDING OUR CLASS :

It is expected that the students follow a code of conduct according to school regulations. When in class, in order to promote a learning environment, certain rules must be followed:

- 1.- Treat teacher and classmates with respect and courtesy.
- 2.- Ask for a turn to speak
- 3.- Listen to what others have to say.
- 4.- Contributes to the cleanliness and organization of the learning environment
- 5.- Hand in work on time and neat and organize
- 6.- Bring all necessary materials to class
- 7.- Keep the notebook complete, neat, and organize.
- 8.- Ask for permission to stand up (it must be a good reason)
- 9.- Mistakes are welcome. We'll convert them in learning points.
- 10.-Respect wait time.

Some important procedures:

- Homeroom time begins at 7:15 a. m. and ends at 7: 30 a. m.. Punctuality is a must and students will come to immediately prepare for the day.
- At the beginning of each class students will have all the materials for that class ready, before the teacher comes in.
- Students will stand up and greet any visitor with a simple "Good morning or good afternoon"

Assignments:

They must be handed in on time. Late assignments will be penalized with a number of points off depending on how far from the due date it is turned in (5 points per day, and no more than a week late; after a week a 0 will be assigned).



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Typed assignments will have a specific format. In the case that other is not specify, the format will be :

Font: Times New Roman

Pitch: 12

Line spacing: 1.5

Notebook Heading:

Notebooks pages must have a heading. This heading must contain the following information:

- name of the student (left on first line)
- date of the assignment (right on first line)
- subject (centered, second line)
- objective of the day (below the subject name)

Laboratory Activities:

Experiments are essential parts of science learning, that's why students must take this activities seriously and participate and cooperate when performing them. It is required that students bring their lab coats and behave in an appropriate way since there is delicate and expensive equipment that can get damage if misused. Also this will contribute to the security of the students by avoiding accidents that can get them hurt.

A Lab Report following the scientific method must be turned in after each lab activity. It must contain :

Name of the activity

Objective

Hypothesis

Materials

Procedure

Observation

Conclusion