



PINEWOOD – THE AMERICAN INTERNATIONAL SCHOOL OF THESSALONIKI, GREECE

NAME OF COURSE: Science 6

GRADE LEVEL: 6

SCHOOL YEAR: 2011 – 2012

COURSE DESCRIPTION

This course bridges elementary and secondary science by building on students' knowledge in the areas of chemistry, physics, earth science and biology. Theoretical work will be consolidated with regular practical experiments and students will be encouraged to design their own experiments to test well known theories. The aim of the course is also to help students develop the skills required for success in science such as laboratory manipulative skills, critical thinking and concise writing skills.

Each pupil will be provided with a copy of the text book 'Scott Foresman, Science. However the text book does not contain all the information on topics which will be studied this year and other sources of information including the library and research conducted by the pupil on the internet. It is therefore vital that pupils keep up to date with notes taken in lessons

LEARNING OBJECTIVES

- To know the properties of the three states of matter
- To differentiate between heat and temperature.
- To define conduction, convection and radiation.
- To compare mixtures and solutions
- To define element, compound and chemical change
- To explain the rock cycle
- To understand weather patterns and their effects
- To compare waves resulting in sound and light
- To identify the main body systems and their functions

SCOPE AND SEQUENCE *

Quarter I

Heat and changes in states of matter

The three states of matter

Physical changes: A study of melting and evaporation

Heat temperature and temperature scales

Heat transfer: convection, conduction and radiation

Mixtures

The properties of solutions

Separating mixtures

Introduction to chemical reactions

The periodic table: What is an element?

Chemical changes and compounds

Quarter II

Acids and bases

Acid and base reactions

Acid and metal reactions

Temperature change and chemical reactions

Light, sound and color

Exploring the behavior of light rays

Defining color and sound

Quarter III

Earth processes

Rocks and the rock cycle – plate tectonics – earthquakes and vibrations – volcanic eruptions - soil formation – water and the earth's crust – rocks and the history of the Earth.

Technology and weather

Weather patterns and how the weather is forecast

Collection of weather data

Severe weather and its effects

The effects of volcanic eruptions, asteroid impacts and atmospheric and oceanic changes on world climate

Exploring the universe

The sun and Earth's seasons

The expanding universe

Quarter IV

Organization in multicellular organisms

Cells and their functions

Tissues, organs and organ systems

The main organ systems of the human body

DNA and reproduction

Variation and adaptation

The body's control system

The nervous system

The collection of information by the body's senses

Health and the human body

The influence of sanitation, diet, medication, drugs (including tobacco and alcohol), environmental conditions and exercise on length and quality of life.

**Note that the order in scope and sequence is subject to change during the school year.*

HOMEWORK POLICY

Homework will be issued a minimum of twice per week.. Students will be given a minimum of two days to complete homework. Work not handed in by the deadline will be penalized. 10 % is deducted from work handed in one day late and 20 % from work handed in two days late. Work over two days late will not be accepted.

ASSESSMENT

Grades are given for:

- Semester exams to test the student's mastery of the concepts.
- Chapter tests to test the student's ability to follow the course.
- Quizzes announced and unannounced to test how well the student is keeping up and understands concepts.
- Homework and class work assignments used for reinforcement, review and evaluation.
- Laboratory reports
- Student effort and application
- Participation in class discussion

Assessment of Pinewood Quarter Mark:

Tests	50%
Quizzes	10%
Laboratories	10%
Homework	20%
Effort, application and participation	10%
Total	100%

(Science Project 30% of 4th quarter grade)

Assessment of Pinewood Semester ½ Mark:

1 st Quarter	40%
2 nd Quarter	40%
Exam	20%
Semester	100%

Assessment of Pinewood Final Mark:

Semester 1	50%
Semester 2	50%
Final	100%

RESOURCES

These include:

- ⤴ Textbook: Grade 6 Science, Scott Foresman, Addison Wesley, New York
- ⤴ Resource books and handouts
- ⤴ Educational television programs
- ⤴ School library
- ⤴ Internet
- ⤴ Whiteboard

ACADEMIC HONESTY

Academic honesty is fundamental to the integrity and operation of our school. Acts of academic dishonesty, including plagiarism (the act of presenting others' words and ideas as one's own without crediting the source), stealing in quizzes and tests, copying work from other students or allowing their own work to be copied, or using notes during a test, are considered serious offenses. The consequences of academic dishonesty will be a zero grade on the specific test/assignment, and additional disciplinary action.