

# SYLLABUS

Teacher	Marlene Karagoulian
E-mail	Kazzoum@aol.com
Phone	818-892-7991
Conference Hours	8:00 am- 9:45 am
Course Name & Grade Level	Fifth Grade Science
Textbooks	California Science Harcourt School Publishers
Resources	Science Content Support Lab Manual
Required Materials	Notebook

Course Description:

**Course Number: E450**

**Science:** The fifth grade science focuses on teaching the human body, the digestive system, respiratory system, circulatory system, excretory system. The students further their knowledge in space science, explore our solar system, galaxies, constellations, and life cycle of stars. They continue to study weather, climate and water changes on earth. Also the class covers chemistry, periodic table of elements, chemical and physical properties of substances, metals and non-metals, bases and acids.

**Assessment Methods:** Science Content Support Workbook, daily oral and written practices hands-on activities, group projects, activities, oral assessment, conducting experiments, and chapter quizzes, tests and Unit tests.

**ESLRs Addressed:** 1A, 1B, 1C, 3A, 3B, 3C, 4A,4B,4C, 5A, 5B, 5C.

## Content Standards

The following is the California Department of Education Content Standards of this Course.

### 5th Grade Science Content Standards

#### Physical Sciences

##### **1. Elements and their combinations account for all the varied types of matter in the world.**

As a basis for understanding this concept, students know:

- a. during chemical reactions, the atoms in the reactants rearrange to form products with different properties.
- b. all matter is made of atoms, which may combine to form molecules.
- c. metals have properties in common, such as electrical and thermal conductivity. Some metals, such as aluminum (Al), iron (Fe), nickel (Ni), copper (Cu), silver (Ag), gold (Au), are pure elements while others, such as steel and brass, are composed of a combination of elemental metals.
- d. each element is made of one kind of atom. These elements are organized in the Periodic Table by their chemical properties.
- e. scientists have developed instruments that can create images of atoms and molecules showing that they are discrete and often occur in well ordered arrays.
- f. differences in chemical and physical properties of substances are used to separate mixtures and identify compounds.
- g. properties of solid, liquid, and gaseous substances, such as sugar (C<sub>6</sub>H<sub>12</sub>O<sub>6</sub>), water (H<sub>2</sub>O) helium (He), oxygen (O<sub>2</sub>), nitrogen (N<sub>2</sub>), and carbon dioxide (CO<sub>2</sub>).
- h. living organisms and most materials are composed of just a few elements.
- i. common properties of salts, such as sodium chloride (NaCl).

#### Life Sciences

##### **2. Plants and animals have structures for respiration, digestion, waste disposal, and transport of materials.**

As a basis for understanding this concept, students know:

- a. many multicellular organisms have specialized structures to support the transport of materials.
- b. how blood circulates through the heart chambers, lungs, and body, and how carbon dioxide (CO<sub>2</sub>) and oxygen (O<sub>2</sub>) are exchanged in the lungs and tissues.
- c. the sequential steps of digestion, and the roles of teeth and mouth, esophagus, stomach, small intestine, large intestine, and colon in the function of the digestive system.
- d. the role of the kidney in removing cellular wastes from blood and converting them into urine, which is stored in the bladder.
- e. how sugar, water, and minerals are transported in a vascular plant.
- f. plants use carbon dioxide (CO<sub>2</sub>) and energy from sunlight to build molecules of sugar and release oxygen.
- g. plant and animal cells break down sugar to obtain energy, forming carbon dioxide (CO<sub>2</sub>) and water (respiration).

## **Earth Sciences**

### **3. Water on Earth moves between the oceans and land through the processes of evaporation and condensation.**

As a basis for understanding this concept, students know:

- a. most of the Earth's water is present as salt water in the oceans, which cover most of the Earth's surface.
- b. when liquid water evaporates, it turns into water vapor in the air and can reappear as a liquid when cooled, or as a solid if cooled below the freezing point of water.
- c. water moves in the air from one place to another in the form of clouds or fog, which are tiny droplets of water or ice, and falls to the Earth as rain, hail, sleet, or snow.
- d. the amount of fresh water, located in rivers, lakes, underground sources, and glaciers, is limited, and its availability can be extended through recycling and decreased use.
- e. the origin of water used by their local communities.

### **4. Energy from the sun heats the Earth unevenly, causing air movements resulting in changing weather patterns.**

As a basis for understanding this concept, students know:

- a. uneven heating of the Earth causes air movements (convection currents).
- b. the influence of the ocean on weather, and the role of the water cycle in weather.
- c. causes and effects of different types of severe weather.
- d. how to use weather maps and weather forecasts to predict local weather, and

that prediction depends on many changing variables.

e. the Earth's atmosphere exerts a pressure that decreases with distance above the Earth's surface, and is the same in all directions.

**5. The solar system consists of planets and other bodies that orbit the sun in predictable paths.**

As a basis for understanding this concept, students know:

a. the sun, an average star, is the central and largest body in the solar system and is composed primarily of hydrogen and helium.

b. the solar system includes the Earth, moon, sun, eight other planets and their satellites, and smaller objects such as asteroids and comets.

c. the path of a planet around the sun is due to the gravitational attraction between the sun and the planet.

**Investigation and Experimentation**

**6. Scientific progress is made by asking meaningful questions and conducting careful investigations.**

As a basis for understanding this concept, and to address the content the other three strands, students should develop their own questions and perform investigations. Students will:

a. classify objects (e.g., rocks, plant, leaves) based on appropriate criteria.

b. develop a testable question.

c. plan and conduct a simple investigation based on a student-developed question, and write instructions others can follow to carry out the procedure.

d. identify the dependent and controlled variables in an investigation.

e. identify a single independent variable in a scientific investigation and explain what will be learned by collecting data on this variable.

f. select appropriate tools (e.g., thermometers, meter sticks, balances, and graduated cylinders) and make quantitative observations.

g. record data using appropriate graphic representation (including charts, graphs, and labeled diagrams), and make inferences based on those data.

h. draw conclusions based on scientific evidence and indicate whether further information is needed to support a specific conclusion.

i. write a report of an investigation that includes tests conducted, data collected or evidence examined, and conclusions drawn.

**If need be please use additional pages**

## Class Schedule - Quarter 1

The schedule includes the textbook chapters to be covered throughout the year, additional subject matter, all lectures, tests, quizzes, projects and other relevant information.

<b>First Semi-Quarter</b>	
Week 1	Unit 1, Lesson 1 What Are Atoms and Elements?
Week 2	Unit 1, Lesson 1 What Are Atoms and Elements?
Week 3	Unit 1, Lesson 2 What Are Metals?
Week 4	Unit 1, Lesson 2 What Are Metals?
Week 5	Unit 1, Lesson 3 What Are Some Properties of Common Substances?

<b>Second Semi-Quarter</b>	
Week 1	Unit 1, Lesson 3 What Are Some Properties of Common Substances?
Week 2	Unit 1, Lesson 4 How Are Chemical and Physical Properties Used?
Week 3	Unit 1, Lesson 4 How Are Chemical and Physical Properties Used?
Week 4	Unit 1, Lesson 5 What Are Chemical Reactions?
Week 5	Unit 1, Lesson 5 What Are Chemical Reactions?

## **Class Schedule - Quarter 2**

<b>First Semi-Quarter</b>	
Week 1	Unit 2, Lesson 1 How Do Organisms Transport Materials?
Week 2	Unit 2, Lesson 1 How Do Organisms Transport Materials?
Week 3	Unit 2, Lesson 2 How Do the Circulatory and Respiratory Systems Work Together?
Week 4	Unit 2, Lesson 2 How Do the Circulatory and Respiratory Systems Work Together?
Week 5	Unit 2, Lesson 3 How Do the Organs of the Digestive System Work Together?

<b>Second Semi-Quarter</b>	
Week 1	Unit 2, Lesson 3 How Do the Organs of the Digestive System Work Together?
Week 2	Unit 2, Lesson 4 How Do Plants and Animals Rid Themselves of Wastes?
Week 3	Unit 2, Lesson 4 How Do Plants and Animals Rid Themselves of Wastes?
Week 4	Unit 2, Lesson 5 How Are Materials Transported in Vascular Plants?
Week 5	Unit 2, Lesson 5 How Are Materials Transported in Vascular Plants?

## Class Schedule - Quarter 3

<b>First Semi-Quarter</b>	
Week 1	Unit 2, Lesson 6 How Do Cells Get the Energy They Need?
Week 2	Unit 2, Lesson 6 How Do Cells Get the Energy They Need?
Week 3	Unit 3, Lesson 1 How Does Water move from Earth to the Air and Back Again?
Week 4	Unit 3, Lesson 1 How Does Water move from Earth to the Air and Back Again?
Week 5	Unit 3, Lesson 2 How Do Californians Get the Water They Need?

<b>Second Semi-Quarter</b>	
Week 1	Unit 3, Lesson 2 How Do Californians Get the Water They Need?
Week 2	Unit 3, Lesson 3 How Can People Conserve Water?
Week 3	Unit 3, Lesson 3 How Can People Conserve Water?
Week 4	Unit 5, Lesson 1 What Is The Sun?
Week 5	Unit 5, Lesson 1 What Is The Sun?

## **Class Schedule - Quarter 4**

<b>First Semi-Quarter</b>	
Week 1	Unit 5, Lesson 2 What Makes Up the Solar System?
Week 2	Unit 5, Lesson 2 What Makes Up the Solar System?
Week 3	Unit 5, Lesson 3 What Holds the Moon and Planets in Place?
Week 4	Unit 5, Lesson 3 What Holds the Moon and Planets in Place?
Week 5	Unit 4, Lesson 1 How Does Uneven Heating of Earth Affect Weather?

<b>Second Semi-Quarter</b>	
Week 1	Unit 4, Lesson 1 How Does Uneven Heating of Earth Affect Weather?
Week 2	Unit 4, Lesson 2 How Do Oceans and the Water Cycle Affect Weather?
Week 3	Unit 4, Lesson 2 How Do Oceans and the Water Cycle Affect Weather?
Week 4	Unit 4, Lessons 3 and 4 How is Weather Predicted? What Are the Causes and Effects of Severe Weather?
Week 5	Unit 4, Lessons 3 and 4 How is Weather Predicted? What Are the Causes and Effects of Severe Weather?



## **Classroom Rules**

**This section includes the rules set by the teacher and the consequences of violating these rules.**

### **General Rules for Student Behavior**

#### **Rules:**

- 1. Respect each other and all property.**
- 2. Raise your hand if you have something to say or need help.**
- 3. Ask permission before leaving your seat.**
- 4. Be prepared for class with books and all necessary materials.**
- 5. Absolutely no behavior that interferes with the learning atmosphere in the classroom will be permitted.**

#### **Classroom Management Policy:**

**Behaving appropriately is an essential aspect of learning. Without a well-managed atmosphere, the teacher cannot teach effectively and the learner cannot learn. In having a classroom management plan, we are attempting to provide a favorable environment in which students can learn, feel valued, and develop responsibility for their behaviors and academic progress. Our plan will provide immediate and consistent reinforcement of both positive and negative behavior.**

#### **Classroom Management Colored Chart:**

**BLUE: Good Behavior (All students begin here. If a student remains on the blue all week, they will receive a Good Behavior Coupon which makes them eligible to have their names drawn from a weekly Raffle box. When their names get drawn, they can choose from a variety of prizes.)**

**GREEN: Warning! Follow Rules ( This signals the student to adjust behavior in class accordingly.)**

**YELLOW: Reflection Time (If a student's pin gets to the yellow color, the student will reflect on what behavior resulted in this and why. A reflection sheet will be completed by the student and sent home to the parents to be signed and returned. The reflection sheet will be kept in the student's file. )**

**RED: Letter/ Communication with Parents from teacher. ( At any time that a student's name is pinned to the Green or Yellow , they do have the chance to work their way back up to Blue for improved behavior. To encourage each student to always try their best in class, at the beginning of each week, all students are given the opportunity to have their pins placed on the Blue for good behavior.**



## School Grading Policy

**This section includes grading policies set by the school administration for grades K-5**

The grades assigned to students are based on their **academic progress** and their **classroom behavior**. Students receive **Academic** and **Cooperation** grades for every quarter of the four-quarter academic year. Students also receive a mid-term progress report for each of these 9-10 weeklong quarters. Besides the quarter grades, students are assigned semester grades for each class or course.

### Academic Grade Scale - Grades K-5

Letter Grade	Scale of 100	Scale of 4	
A+	100-97	4.0	Exceeds grade level standards
A	96-93	4.0	
A-	92-90	3.7	
B+	89-87	3.3	Meets grade level standards
B	86-83	3.0	
B-	82-80	2.7	
C+	79-77	2.3	Partially meets grade level standards
C	76-73	2.0	
C-	72-70	1.7	
D+	69-67	1.3	Below grade level standards
D	66-63	1.0	
D-	62-60	0.7	
F	59-0	0	Fail

## **Assessment**

### **This section includes rules set by the school administration**

#### Test/Quiz Policy

Students take **at least** TWO tests and two quizzes per class or course per semi-quarter. Two to four quizzes may be counted as one test. It is up to the individual teacher to adopt a policy to drop the lowest test grade of a student in calculating the quarter grade. No more than two tests are scheduled on the same day. The test scheduled last will be automatically dropped.

#### Test/Quiz Make-Up

Students with **excused** absences shall have the opportunity to complete missed class work and make up all tests receiving full credit. The student is responsible to arrange for the make-up.

Students who miss a test/quiz because of an **unexcused** absence will receive a failing grade on that test/quiz, except when the teacher decides to offer the chance for make-up.

If a student misses a test/quiz while on suspension, he/she will not have the opportunity to make up the test/quiz and will receive an "F".

#### Cheating

Acts of cheating or plagiarism will result in suspension and the student will receive an "F" (20/100) on the test or the assigned work.

### **This section includes grade percent distribution and additional rules set by the teacher**

**Tests—50%**  
**Classwork—15%**  
**Homework—10%**  
**Quizzes/ Activities—15%**  
**Participation—10%**