

SYLLABUS

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Conference Hours	8:00 am – 9:45 am
Course Name & Grade Level	Fourth Grade Science
Textbooks	California Science Harcourt School Publishers
Resources	Science Content Support Lab Manual
Required Materials	Notebook

Course Description:

Course number:E440

Course Description:

Fourth grade science focuses on life sciences, physical sciences, earth science and the human body. Life sciences will include the life cycles of plants and animals and adaptations of plants and animals and their interaction with their environment. The focus will include basic characteristics, needs, and functions common to all living things. They will understand the variety and complexity of life and its processes and develop respect for all life. Physical sciences will include learning about matter, forms of energy, and forces and motion. The students will describe, categorize, compare, and measure observable physical properties of matter. They will understand that energy exists in a variety of forms and be able to describe those forms (e.g., heat, chemical, light, electrical). Earth sciences include the study of weather and the water cycle. The human body unit includes the study of body systems, health, and nutrition.

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.

4th Grade Science Content Standards

Physical Sciences

1. Electricity and magnetism are related effects that have many useful applications in everyday life.

As a basis for understanding this concept, students know:

- a. how to design and build simple series and parallel circuits using components such as wires, batteries, and bulbs.
- b. how to build a simple compass and use it to detect magnetic effects, including Earth's magnetic field.
- c. electric currents produce magnetic fields and how to build a simple electromagnet.
- d. the role of electromagnets in the construction of electric motors, electric generators, and simple devices such as doorbells and earphones.
- e. electrically charged objects attract or repel each other.
- f. magnets have two poles, labeled north and south, and like poles repel each other while unlike poles attract each other.
- g. electrical energy can be converted to heat, light and motion.

Life Sciences

2. All organisms need energy and matter to live and grow.

As a basis for understanding this concept, students know:

- a. plants are the primary source of matter and energy entering most food chains.
- b. producers and consumers (herbivores, carnivores, omnivores, and decomposers) are related in food chains and food webs, and may compete with each other for resources in an ecosystem.
- c. decomposers, including many fungi, insects, and microorganisms, recycle matter from dead plants and animals.

3. Living organisms depend on one another and on their environment for survival.

As a basis for understanding this concept, students know:

- a. ecosystems can be characterized in terms of their living and nonliving components.
- b. for any particular environment, some kinds of plants and animals survive well, some survive less well, and some cannot survive at all.
- c. many plants depend on animals for pollination and seed dispersal, while animals depend on plants for food and shelter.
- d. most microorganisms do not cause disease and many are beneficial.

Earth Sciences

4. The properties of rocks and minerals reflect the processes that formed them.

As a basis for understanding this concept, students know:

- a. how to differentiate among igneous, sedimentary, and metamorphic rocks by their properties and methods of formation (the rock cycle).
- b. how to identify common rock-forming minerals (including quartz, calcite, feldspar, mica, and hornblende) and ore minerals using a table of diagnostic properties.

5. Waves, wind, water, and ice shape and reshape the Earth's land surface.

As a basis for understanding this concept, students know:

- a. some changes in the Earth are due to slow processes, such as erosion, and some changes are due to rapid processes, such as landslides, volcanic eruptions, and earthquakes.
- b. natural processes, including freezing/thawing and growth of roots, cause rocks to break down into smaller pieces.
- c. moving water erodes landforms, reshaping the land by taking it away from some places and depositing it as pebbles, sand, silt, and mud in other places (weathering, transport, and deposition).

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. differentiate observation from inference (interpretation), and know that scientists' explanations come partly from what they observe and partly from how they interpret their observations.
- b. measure and estimate weight, length, or volume of objects.
- c. formulate predictions and justify predictions based on cause and effect relationships.
- d. conduct multiple trials to test a prediction and draw conclusions about the relationships between results and predictions.
- e. construct and interpret graphs from measurements.
- f. follow a set of written instructions for a scientific investigation.

[back](#)

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.

First Semi-Quarter	
Week 1	Unit 1, Lesson 1 What is Static Electricity?
Week 2	Unit 1, Lesson 1 What is Static Electricity?
Week 3	Unit 1, Lesson 2 What Makes a Circuit?
Week 4	Unit 1, Lesson 2 What Makes a Circuit?
Week 5	Unit 1, Lesson 3 What are Magnetic Poles?

Second Semi-Quarter	
Week 1	Unit 1, Lesson 3 What are Magnetic Poles?
Week 2	Unit 1, Lesson 4 How Can You Detect a magnetic Field?
Week 3	Unit 1, Lesson 4 How Can You Detect a magnetic Field?
Week 4	Unit 1, Lesson 5 What Makes an Electromagnet?
Week 5	Unit 1, Lesson 5 What Makes an Electromagnet?

Class Schedule - Quarter 2

First Semi-Quarter	
Week 1	Unit 1, Lesson 6 How Are Electromagnets Used?
Week 2	Unit 1, Lesson 6 How Are Electromagnets Used?
Week 3	Unit 1, Lesson 7 How is Electrical Energy Used?
Week 4	Unit 1, Lesson 7 How is Electrical Energy Used?
Week 5	Unit 2, Lesson 1 What Are Producers and Consumers?

Second Semi-Quarter	
Week 1	Unit 2, Lesson 1 What Are Producers and Consumers?
Week 2	Unit 2, lesson 2 What Are Decomposers?
Week 3	Unit 2, lesson 2 What Are Decomposers?
Week 4	Unit 2, lesson 3 What Are Food Chains and Food Webs?
Week 5	Unit 2, lesson 3 What Are Food Chains and Food Webs?

Class Schedule - Quarter 3

First Semi-Quarter	
Week 1	Unit 2, Lesson 4 How Do Living Things Compete for Resources?
Week 2	Unit 2, Lesson 4 How Do Living Things Compete for Resources?
Week 3	Unit 3, Lesson 1 What Makes up an Ecosystem?
Week 4	Unit 3, Lesson 1 What Makes up an Ecosystem?
Week 5	Unit 3, Lesson 2 What Affects Survival?

Second Semi-Quarter	
Week 1	Unit 3, Lesson 2 What Affects Survival?
Week 2	Unit 3, Lesson 3 What is Interdependence?
Week 3	Unit 3, Lesson 3 What is Interdependence?
Week 4	Unit 3, Lesson 4 What Are Microorganisms?
Week 5	Unit 3, Lesson 4 What Are Microorganisms?

Class Schedule - Quarter 4

First Semi-Quarter	
Week 1	Unit 4, Lesson 1 How Are Minerals Identified?
Week 2	Unit 4, Lesson 1 How Are Minerals Identified?
Week 3	Unit 4, Lessons 2 and 3 How Are Rocks Identified? What is the Rock Cycle?
Week 4	Unit 4, Lessons 2 and 3 How Are Rocks Identified? What is the Rock Cycle?
Week 5	Unit 5, Lesson 1 What Causes Changes to Earth's Surface?

Second Semi-Quarter	
Week 1	Unit 5, Lesson 1 What Causes Changes to Earth's Surface?
Week 2	Unit 5, Lesson 2 What Causes Weathering?
Week 3	Unit 5, Lesson 2 What Causes Weathering?
Week 4	Unit 5, Lesson 3 How Does Moving Water Shape the Land?
Week 5	Unit 5, Lesson 3 How Does Moving Water Shape the Land?

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%