



Mackay Elementary School



Grade Level: 3rd Grade

Subject: Science

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Teacher and contact information: Mrs. Hoover

3rd Grade

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SUBJECT INFORMATION

Third grade Science standards are presented in five components – Nature of Science, Physical Science, Biology, Earth and Space Systems, & Personal and Social Perspectives; Technology. For Nature of Science students will understand Systems, Order, & Organization, understand Concepts & Process of Evidence, Models, and Explanations, understand Constancy, Change & Measurement, understand Concepts of Form & Function, understand Scientific Inquiry & Develop Critical Thinking Skills, and understand Technical Communication. For Physical Science students will understand the Structure & Function of Matter and Molecules & their Interaction, and understand the Total Energy in the Universe is Constant. For Biology students will understand the Theory of Biological Evolution, and understand the Relationship between Matter and Energy in Living Systems. For Earth and Space Systems students will understand Scientific Theories of Origin and Subsequent Changes in the Universe and Earth Systems. For Personal & Social Perspectives; Technology students will understand Common Environmental Quality Issues, both Natural and Human Induced, understand the Relationship between Science and Technology, and understand the Importance of Natural Resources and the Need to Manage and Conserve Them.

COMMON CORE / STATE CONTENT STANDARDS / VOCABULARY

STATE CONTENT STANDARDS

- Label the parts of a system.
- Make observations, collect data and evaluate it.
- Replicate and/or use models.
- Measure changes that occur.
- Measure in both U.S. Customary and International System of Measurement (metric) units.

- Describe the relationship between shape and use.
- Identify questions that can be answered by conducting scientific tests.
- Conduct scientific tests.
- Use appropriate tools and techniques to gather and display data.
- Use data to construct a reasonable explanation.
- Make simple predictions based on data.
- Identify logical alternative explanations.
- Communicate the results of tests to others.
- Read and give multi-step instructions.
- Use instruments to measure properties.
- Identify the physical properties of solids, liquids, and gases.
- Explain that heating and cooling can cause changes of state in common materials.
- Identify potential and kinetic energy.
- Describe the adaptations of plants and animals to their environment.
- Describe the energy needed for living systems to survive.
- Compare and contrast the energy requirements of plants and animals.
- Label a food chain that shows how organisms cooperate and compete in an ecosystem.
- Diagram the food web and explain how organisms both cooperate and compete in ecosystems.
- Explain the reasons for length of a day, the seasons, and the year on Earth.
- Identify local environmental issues.
- Describe how technology helps develop tools.
- Describe the development of tools over time.
- Explain the concept of recycling.

INSTRUCTIONAL MATERIALS

Textbook and Ancillary Materials: Science – Harcourt School Publishers © 2006. This is the elementary school's primary adopted Science series.

The mandated Science units will be supplemented with Science Kits from Carolina Scientific (Received from a grant obtained through the Idaho National Laboratory by Mrs. Larsen.)

UNITS WITH INSTRUCTIONAL DATES

Quarter	Lesson	Description
1st Quarter	Unit A Living Things in Our World	Types of Living Things & How Do Living Things Grow & Change?
	Chapter 1 Types of Living Things	
	Chapter 2 Types of Plants	What Do Plants Need to Live? (Adaptations to the Environment) What Are Some Types of Plants?

		How Do Plants Make Food?
	Chapter 3 Types of Animals	What Do Animals Need to Live? (Adaptations to the Environment) What Are Vertebrates? What Are Invertebrates?
	Unit B Living Things Interact Chapter 4 Where Living Things Are Found	What Are Ecosystems? What Are Some Types of Ecosystems? How Do Living Things Survive in Ecosystems? How Do Ecosystems Change?
2nd Quarter	Chapter 5 Living Things Depend on One Another	How Do Plants and Animals Interact? What Are Food Chains? What Are Food Webs?
	Unit C Earth's Land Chapter 6 Minerals & Rocks	What Are Minerals & Rocks? What Are the Types of Rocks? What Are Fossils?
	Chapter 7 Forces the Shape the Land	What Are Landforms? How Do Landforms Change Slowly? How Do Landforms Change Quickly?
	Chapter 8 Conserving Resources	What Are Some Types of Resources? What Are Some Types of Soil? How Do People Use and Impact the Environment? (Environmental Issues & Recycling)
3rd Quarter	Unit D Weather & Space Chapter 9 The Water Cycle	Where Is Water Found on Earth? What Is the Water Cycle? What Is Weather?
	Chapter 10 Earth's Place in the Solar System	What Causes Earth's Seasons? How Do Earth and the Moon Interact? What is the Solar System? (Length of a day, seasons & year on Earth.)
	Chapter 11 Properties of Matter	What Is Matter? What Are States of Matter? (Properties of solids, liquids, & gases.) How Does Matter Change? (Heating & cooling can cause changes of state in common materials.)
	Chapter 12	What Is Energy? (Potential & Kinetic Energy) How Can Energy Be Used?

4th Quarter	Energy	Why is Energy Important?
	Chapter 14	What Is Heat? What is Light?
	Heat, Light & Sound	How Are Light & Color Related? What is Sound?
	Chapter 16	What is Work? What Are Some Simple Machines? (Tools & development of tools) What Are Some Other Simple Machines?
1st - 4th Quarters	Carolina Scientific Kits	Kits will be used throughout the year when appropriate to supplement and expand on required 3 rd grade Science curriculum.

ASSESSMENTS / TESTS

Harcourt textbook reviews and tests. Carolina Biological Science Kit activity sheets and data collection worksheets.

GRADING PROCEDURES

Units are introduced by reading and discussing the textbook subjects. Student participation in those discussions will be part of each quarterly Science grade. Participation and completion of Science investigations and experiments will also be part of Science grades. Worksheets will be graded with a points correct over the points possible in a fraction form.

CLASS RULES

Students are expected to arrive prepared for class with completed homework. They are to attend to lessons, participate in discussions, and complete classroom assignments including reading and hands-on science activities. Students are to treat others with respect and kindness, work quietly, ask questions and work cooperatively.