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Introduction

Common Sense Science—Oceans can be used in a single, multilevel classroom, home-school, co-op, or science club. This book and the **Student Materials Packet** are all you need for a complete study of the ocean. Older students will need access to basic reference materials.

How to Use the Multilevel Approach

The lessons in this book include foundational content appropriate for first through sixth grades at different mastery levels. For example, when learning about the different layers of the ocean, a first grader will be able to name five zones. This student is exposed to more information but not expected to retain it. In the same lesson, a sixth-grade student will be able to identify the five zones, describe their conditions, and name plants and animals found there.

In the activity sections, icons are used to designate the levels in specific assignments.

indicates the first level, which is the non-reading or early reading student. This level mainly applies to first and second grade students.

is used for the second level. This includes the student who is still working to be a fluent reader. This level is primarily designed for third and fourth grade students.

denotes the third level, or fluent reader. This level of activities will usually apply to fifth and sixth grade students.

Choose the directions that fit the age of your student. If you are teaching multiple grades, start with the younger student's directions.

Vocabulary Words

"If I know the vocabulary, I know the content. If I know the content, I know the vocabulary."

Dr. Ruth Beechik

Vocabulary words are introduced in the context of each lesson. A new word must be met at least fifteen times before it becomes a part of our speaking vocabulary, so use the words frequently as you present and discuss the material. We recommend supplementing the lessons with easy-to-read library books on the subject giving them even more opportunities to "meet" the words.

A vocabulary word list is included in the **Student Materials Packet**. Give students the appropriate word list for each lesson and instruct them to use the words in discussions and writing assignments for reference and review.

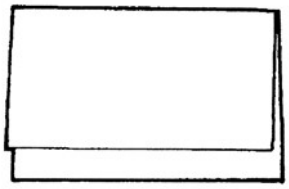
Graphic Organizers

"Tell me something and I forget. Show me something and I remember. Involve me in something and I learn."

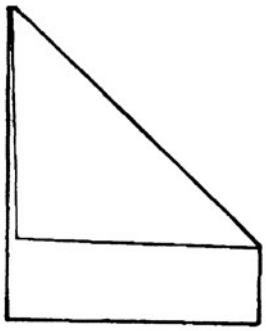
Dinah Zike

Common Sense Science—Oceans uses *3D Graphic Organizers* to help students of all levels better understand concepts by taking complicated information and breaking it down into visual parts. Although the content for the levels will generally be the same, assignments and expectations for recording information learned will vary for each level. To make the Graphic Organizers, you will need the accompanying **Student Materials Packet**.

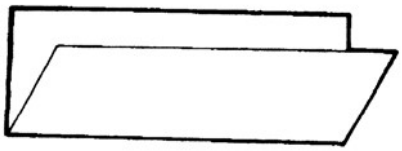
There are three basic folds used to construct the Organizers. Practice making these three basic food folds before you introduce them to your students.



Hamburger



Taco



Hot Dog

Several of the *3D Graphic Organizers* expand over a series of lessons. For this reason, you will need a storage system for each student's *3D Graphic Organizers*. A pocket folder or a re-closable plastic bag works well.

The Graphic Organizers used in this program were created by Dinah Zike and used with her permission. To learn more visit www.dinah.com.

Labs

The study of science is based on the Scientific Method—make an observation, come up with a question or concept, make a prediction (hypothesis), experiment, and draw conclusions. Labs implementing this method provide context for the information found in the science lessons, increasing understanding as well as retention. These steps can be overwhelming to young children and should be used as a guideline to avoid frustrating them.

To simplify the process, the labs in *Common Sense Science* use the following approach:

Students

- are asked a question or presented a concept
- make a prediction of what will happen
- experiment and observe
- draw a conclusion based on what they have observed

These predictions, observations, experiments, and conclusions will be recorded in their Lab Book.

The following lab materials list will help you to prepare. Labs can be completed by the class or by each student.

Lesson 2:

clear glass
water
ice cube
marble
eye dropper
small pan

Lesson 3:

dishpan
water
plastic bottle
scissors or knife
pennies
tape
straw
modeling clay

Lesson 4

water
salt
sauce pan with lid
two glass containers
two crayons

Lesson 5

bowl
pencil
Styrofoam cup
masking tape
dishpan
water

Lesson 7

water
salt
3 small flowering plants

Lesson 8

dishpan
small board (or thick cardboard)
soil
water
sand
two jars
food coloring
index card

Lesson 14

toilet paper roll
black marker
tape
three pennies
balloon
vegetable oil
water
bathtub

Additional Materials Needed

Students will need a **Student Materials Packet** which contains:

- Vocabulary words
- Lab Graphics
- *Discovering the Ocean* book Graphics
- *Life in the Ocean* book Graphics

Each student will need pencils, scissors, glue, colored pencils or crayons, index cards, one letter size manila file folder or a sheet of 12"x18" cardstock paper, and multi-colored 8.5"x11" paper. Each student will need a large re-closable bag to keep paper projects safe. Students should also have access to a globe and a world map.

How to Use this Book

Lessons in the *Common Sense Science* series are divided into 18 three-day weeks. With this schedule, you will be able to complete two books a year.

Days 1 and 2 introduce content and the vocabulary needed to understand it. The lessons are scripted, so the teacher just needs to read them to the students. As you read, show them the images that will help them visualize what is being taught and then discuss what they have learned. Students will then have an opportunity to recreate and record what they have learned into a visual format called a Graphic Organizer that teaches and reviews the information.

During this time, they will also experiment with the material through labs that use household items and are easy to complete. They will practice exploring concepts by predicting outcomes, experimenting, and drawing conclusions.

On Day 3, students will have opportunities to explore and further investigate the subject matter covered during the week. Choose activities that most interest your students and fit your time schedule. Include library books and videos and other teaching tools available through the Internet to further enrich your students' learning experience.