



I INVITE YOU TO KNOW THE EARTH I

ELEMENTARY SCHOOL 2nd. to 4th. GRADE
TEACHER'S GUIDEBOOK

SERVICIO HIDROGRAFICO Y OCEANOGRAFICO DE LA ARMADA DE CHILE
INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION
INTERNATIONAL TSUNAMI INFORMATION CENTER

I INVITE YOU TO KNOW THE EARTH 1

TEACHER'S GUIDELINES BOOK

2nd. to 4th. Grade of Preparatory School

This textbook was written for children 7 to 9 years old who have progressed beyond the initial stage of learning in which reading and writing are been developed and improved. In addition, physical development has increased, so fine motor skills are now present.

The text guide for the Preparatory School teacher is composed of objectives planned only by behavior and content, as well as several suggestions of activities focused to help accomplish those objectives. A list of necessary materials to perform such activities is also provided.

It is recommended that drawing observations be guided by the teacher with questions directing the act of learning. In Units 3 and 5 it is recommended that the teacher first talk with the parents and explain to them the desired objectives of the exercise.

UNIT I

"WHAT DOES OUR EARTH LOOK LIKE?"

OBJECTIVE: The student will be able to identify the shape of the earth, its poles, hemispheres and equator, through drawings and pictures.

SUGGESTED ACTIVITIES:

- Find out the names of the first astronauts to land on the moon.
- Draw the equator.
- Identify each hemisphere.
- Color each hemisphere.
- Name each pole.

MATERIALS:

- Textbook
- Colored pencils

OBJECTIVES:

1. The student will be able to recognize the proportions of water and land on our planet.
2. The student will be able to recognize the general geographic characteristics of the sea bottom.
3. The student will be able to identify the Pacific Ocean and describe its marine bottom through drawings, especially the concepts of submarine trench and ridge.

SUGGESTED ACTIVITIES:

- Color the oceans blue on the map.
- Cut out the name of the Pacific Ocean.
- Stick the name of the Pacific Ocean on the map.
- Answer questions.
- Cut out and stick names: submarine ridge, submarine trench.

MATERIALS:

- Textbook - Drawings - Colored pencils - Glue

UNIT 2

I INVITE YOU TO KNOW THE INSIDE OF THE EARTH

OBJECTIVE: The student will be able to identify and compare the general characteristics of the layers of the earth, and identify the tectonic plates that form the earth's crust.

SUGGESTED ACTIVITIES:

- Using the drawing, mark the crust with a green pencil, the core with a red pencil, and the mantle with a brown pencil.
- Boil an egg, prick its shell and slice it, comparing the interior of the egg with the layers of the earth (it is recommended that this activity be performed in a group with the teacher directly supervising the slice of the boiled eggs).
- Answer the questions of the textbook. - Cut out the pieces of the tectonic plates jigsaw puzzle.
- Put the jigsaw puzzle together.
- Locate your country on the map.
- Mark the borders of your country with a colored pencil.
- Color each plate a different color.
- Color the ocean.

MATERIALS:

- Textbook - Colored pencils - Boiled egg - Knife - Scissors - Glue

OBJECTIVE: The student will be able to differentiate between a volcano and a mountain and recognize general characteristics of volcanoes and volcanic activity.

SUGGESTED ACTIVITIES:

- List similarities and differences between a mountain and a volcano.
- Cut out the names of the elements an erupting volcano throws out.
- Stick these elements in the drawing.
- Color plates.
- Color the outpouring of lava.

MATERIALS:

- Textbook - Colored pencils - Scissors and Glue

UNIT 3

"EARTHQUAKES AND TSUNAMIS"

OBJECTIVE: The student will be able to identify the differences between a minor and a major earthquake, and the function of a seismograph.

SUGGESTED ACTIVITIES:

- Write the differences between a minor and a major earthquake.
- Watch the students drawing. Comment.
- Comment on the function of a seismograph.

MATERIALS:

- Textbook
- Pencils

OBJECTIVE: The student will understand how a tsunami is generated and recognize its propagation capabilities and repercussions.

SUGGESTED ACTIVITIES (BY PREFERENCE)

Preferred activity (in a group)

- Put sand in a tray.
- Cover it with water.
- Blow over it making waves (this activity should be done by the teacher).

Alternate activity (in groups or individually)

- Draw and color the waves of the tsunami.
- Self evaluation.
- Watch drawing/coloring.
- Answer textbook questions.

MATERIALS:

- Tray about 10 centimeters deep
- Sand
- Water
- Hair dryer
- Colored pencils

UNIT 4

"NATURAL HAZARDS"

OBJECTIVE: The student will be able to identify some natural phenomena which are beneficial to man and some which are harmful (natural hazards).

SUGGESTED ACTIVITIES:

- Watch the drawing/coloring
- Answer the textbook questions
- Mark with an X each correct answer to the question

MATERIALS:

- Textbook
- Pencils

UNIT 5

"BASIC RULES OF NATURAL HAZARD PREVENTION"

OBJECTIVE: The student will be able to identify the basic rules of hazard prevention to follow in the event of a major earthquake, showing safe and dangerous places.

SUGGESTED ACTIVITIES:

- Color Tommy Tsumi at safe places in the pictures.
- Color Tommy Tsumi at dangerous places in the pictures.

OBJECTIVE: The student will be able to apply the basic security rules for a major earthquake in different situations and recognize the elements of a personal emergency bag.

SUGGESTED ACTIVITIES:

- Circle safe places with a green pencil.
- Circle dangerous places or actions you don't have to do with a red pencil.
- Cut out elements you would put in your emergency bag.
- Stick beside the emergency bag all elements you would put in your personal bag.

MATERIALS:

- Colored pencils
- Scissors
- Glue

OBJECTIVE: The student will be able to recognize the importance of preparing a family strategy in case of a tsunami.

SUGGESTED ACTIVITIES:

- Talk with parents or family and prepare a family strategy.
- Write the strategy down and discuss it in class.

MATERIALS:

- Textbook
- Pencils

UNIT 6

"SEISMICITY IN YOUR COUNTRY"

OBJECTIVE: The student will be able to recognize the seismic characteristics and places of the country.

SUGGESTED ACTIVITIES:

- Locate the places in your country where most earthquakes occur.
- Put a sticker over those places.

MATERIALS:

- Map of your country
- Stickers

OBJECTIVE: The student will be able to identify and locate the relevant tectonic plate(s).

SUGGESTED ACTIVITIES:

- Locate the plate(s) which cause earthquakes in your country.
- Color the plate(s).

MATERIALS:

- Plate tectonics map
- Colored pencils