



I INVITE YOU TO KNOW THE EARTH II

5th to 8th GRADE OF PREPARATORY SCHOOL TEACHER'S GUIDE

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

I INVITE YOU TO KNOW THE EARTH II

TEACHER'S GUIDEBOOK

5th to 8th Grade of Preparatory School

This preparatory school textbook was prepared for children 10 to 13 years old. These students already show in their learning many adult characteristics (e.g. accuracy, speed and comprehension) and they are able to assimilate a larger amount of information.

This guidebook for the Preparatory School teacher is composed of several subjects divided into five units. The objectives are planned by behavior and content. Several suggestions of activities focused to help accomplish these objectives, together with a list of needed materials, are also provided.

It is recommended that observation and drawing comments be guided by the teacher with a variety of questions to guide this learning. The teacher should also talk with parents about the subject before developing the contents.

UNIT 1

"THE EARTH ON THE OUTSIDE"

OBJECTIVE: The student will be able to identify morphology of the earth and the oceans, recognizing the equatorial and polar radii.

SUGGESTED ACTIVITIES:

- Locate on the drawing of the earth the measurements corresponding to the equatorial and polar radii.
- Complete the data in the table.
- Write the names of every known ocean on the drawing.
- Locate and mark the trenches and ridges of the Pacific Ocean.

MATERIALS:

- Textbook
- Colored pencils

UNIT II

"THE INTERIOR OF THE EARTH"

OBJECTIVE: The student will be able to identify the characteristics of the earth's interior and its layers, will learn how the continents were born, and will develop an understanding of plate tectonics.

SUGGESTED ACTIVITIES:

- Visit an institution that has seismographs and watch them in operation.
- Find out the type of fossils that are found in the rocks of mountains.
- Find out the names of the numbered plates in the plates map.
- Mark on the plate tectonics map the colliding boundaries (red), the spreading boundaries (green), and the fault boundaries (blue).

MATERIALS:

- Textbook
- Colored pencils

UNIT III

"EARTHQUAKES AND VOLCANOES"

OBJECTIVE: The student will be able to identify the origin and types of volcanoes and earthquakes, and the effects they produce.

SUGGESTED ACTIVITIES:

- Compare the map on page 26 with the plate tectonics map on page 20.
- Explain why an area of the map is called the Pacific "Ring of Fire".
- Comment in group with your classmates.
- Draw and stick three instruments of your choice (named in page 32) which allow detection of warning signs related with the possible occurrence of an earthquake.

MATERIALS:.

- Textbook
- Scissors
- Glue
- Colored pencils

UNIT IV

"TSUNAMIS"

OBJECTIVE: The student will be able to identify a tsunami, recognizing its origin, propagation characteristics, and coastal effects.

SUGGESTED ACTIVITIES:

- Find countries where destructive tsunamis have occurred in the last 50 years and identify why they occurred.
- Find out the latitude(s) and longitude(s) of your country.
- Compare the latitude(s) and longitude(s) of your country and Japan (with the help of the drawing).
- Ask adults if they remember any tsunami which occurred in your country.
- Discuss these experiences with your classmates.

MATERIALS:

- Textbook
- Globe of the Earth

UNIT V

"HAZARDS PREVENTION"

OBJECTIVE: The student will be able to identify and practice the basic hazards prevention rules to apply in case of a tsunami.

SUGGESTED ACTIVITIES:

- Discuss the proper actions to take in the event of a tsunami.
- Discuss and practice what is correct to do if a tsunami occurs and the students are at home.
- Discuss and practice what is correct to do if a tsunami occurs and the students are at school.

MATERIALS:

- Textbook