

THE CORAL REEF TEACHER'S GUIDE

REEF RELIEF®

*a nonprofit membership organization dedicated to
Preserve and Protect Living Coral Reef Ecosystems
through local, regional and global efforts*



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THE CORAL REEF TEACHER'S GUIDE

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Introduction

Coral reefs have been called the “rainforests of the sea”. They are the most biologically diverse marine ecosystem on Earth and one of the most fragile of Earth’s environments. And they are being destroyed at an alarming rate.

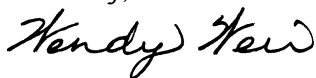
Coral reefs are found in 109 countries, but it is estimated that they have been damaged or destroyed by human activity in at least 93 countries. With each reef lost, countless forms of unique tropical marine life moves closer to extinction and indigenous communities are forced to move from their ancestral lands.

Some of the threats to coral reefs include pollution from sewage, fertilizers and pesticides, oil spills and hydrocarbon pollution, destructive fishing techniques and overfishing, mining, siltation from coastal development and logging, habitat loss from land development, and recreational overuse and abuse. These human-made threats cause irreparable damage when allowed to continue unchecked.

REEF RELIEF is a non-profit membership organization dedicated to protecting living coral reef ecosystems through local, regional and global efforts. In 1998, Coral Forest and REEF RELIEF combined efforts to protect coral reefs. This **Coral Reef Teacher’s Guide** was first produced by Coral Forest and is now available through REEF RELIEF. One of the most important ways that we can protect coral reefs is by increasing awareness, support, and scientific knowledge of these complex underwater environments. The development and distribution of the **Coral Reef Teacher’s Guide**, an interdisciplinary curriculum for grades K-5, 6-8 and 9-12, is an important part of this effort. The information available in this guide enables teachers and students to learn about the beauty and diversity of life on the coral reef, its incredible value to people and related ecosystems, the threats that it is facing, and the possible solutions to these threats. We hope that with this knowledge you will find a deep respect, understanding, and appreciation for coral reefs, and will work to protect their health and the lives of native coastal people dependent upon them for survival.

Human-kind is not separate from Nature. We live on this Earth. We are a part of this Earth. We must be responsible for our actions. Let us put our energy into protecting the coral reefs, the oceans, and the Earth, thereby ensuring a quality of life for all.

Sincerely,



Wendy Weir

Board Member, REEF RELIEF

How to Use the Teacher's Guide

The **Coral Reef Teacher's Guide** presents interdisciplinary, hands-on curriculum for grades K-5, 6-8, and 9-12. It has been created in an interesting and informative manner to encourage students to think about the complexity of coral reefs and their surrounding environment, the threats that they are facing, and the possible solutions to these threats. The guide also presents students with different ways to take action to save the reefs, thereby instilling in them the understanding and confidence that they can improve the world in which they live.

ORGANIZATION OF THE MATERIALS

The **Teacher's Guide** is divided into three sections:

- Background Information
- Lesson Plans: K-5, 6-8, and 9-12
- Resources

All information contained in these sections may be reproduced for classroom use.

Background Information - The Background Information provides teachers of all grades with extensive information about coral reefs. It addresses three major areas:

- What and Where are the Coral Reefs?
- Life on the Coral Reef
- Benefits, Threats, and Solutions.

Each area is designed to give teachers in-depth knowledge about coral reefs so that they can effectively instruct their students and use the lesson plans.

Lesson Plans: K-5, 6-8, and 9-12 - These lesson plans have been created by master teachers for teachers, and they have been extensively field tested in the classroom. They are designed to offer challenging, fun, and creative activities which will encourage students to think about and gain a knowledge of the diversity of life on the coral reef and its interrelationship with other ecosystems and human-kind. The lessons are interdisciplinary, effectively integrating multiple subjects such as math, science, language arts, art, geography, and social science. They are also spirally integrated with each grade level building upon the previous one.

Resources - At the end of the **Teacher's Guide** is a resource section containing a glossary, bibliography, references for students, list of coral reef-related organizations, educational merchandise, and action programs. This material

supports and enhances the teacher's ability to present information about coral reefs in an efficient and thorough manner. The videos, slides, and CD-ROMs are especially effective because they provide outstanding visual images of coral reefs for those who have never seen or visited them.

ORGANIZATION OF THE LESSON PLANS

Although the lesson plans are divided into three sections, K-5, 6-8, and 9-12, they can be used interchangeably based upon the level of the students. Each lesson plan is coordinated with the material in the Background Information. At the top right-hand corner of the page is printed the section in the Background Information to which it relates. For instance, the "Edible Coral Polyp" relates to *What and Where are the Coral Reefs?*, the "Coral Reef Coloring Page" relates to *Life on the Coral Reef*, and "Unsettling Sediments" relates to *Benefits, Threats, and Solutions*.

At the beginning of the lesson plan is listed the Objective of the lesson, the Vocabulary used, the Interdisciplinary Index involved (i.e. science, art, language art), the Materials needed, the step-by-step Presentation of how to perform the activity, and the Follow-up/Extension to the activity. Some of the lesson plans also include a summary of the relevant background information needed for the lesson.

STAY IN TOUCH

REEF RELIEF would like to remain in contact with the teachers and students who have used this **Teacher's Guide**. If you have any suggestions, comments, new information, or need assistance, please let us know.

We also enjoy receiving lesson plans that students have completed, such as coloring pages, poetry, essays, and action letters. At times, we include pictures or copies of students' work in our slide presentations and newsletters in order to give people a better understanding of how children are contributing to and making a difference in our society.

Thank you for teaching students about the beauty of life on the coral reefs, and for helping to make our Earth a better and healthier place to live. Those who learn to respect all life are the ones who work to preserve it.



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