PHOTOCOPY MASTERS

Oceans Alive Activity Book

Image courtesy Microsoft Design Gallery

by Sandy Tasker

Ready-Ed Publications

Contents

Activities:

Teachers' Notes

The **Activities for Young Learners** series is designed to be used in a number of ways:

1. As a learning centre for the library or general classroom;
2. As a library resource package;
3. As a general activity resource package for a number of themes.

Oceans – A Rationale For Study

As an "island nation", we use the ocean as a means of import and export, as a tourist attraction and as a playground for a huge range of leisure and sports activities. The ocean also provides work for many people in the fishing and oil industries. Yet despite taking up most of the world's surface area, and sustaining over 80% of the life in this planet, the ocean is fragile and at risk of significant damage and pollution.

This activity book provides a range of interesting tasks that enable students to explore each section of the ocean, from tide pools on the shore, to coral reefs, right through to the mysterious dark depths. Activities enable students to compare the different types of animals living in the ocean and relate the unusual characteristics of sea creatures to the functions they perform. Students will learn about food chains and the effects of pollution and express their understanding on how they can help to look after the ocean. Students will also develop their ideas on their own personal health and safety at the beach.

The Oceans Alive resource book includes interesting information that students may not know about icebergs, tsunamis and the history of ocean exploration. Highlighted throughout the book is a selection of well-known and lesser-known sea creatures, including fish, sea mammals, birds and microscopic organisms. The oceans topic also lends itself to creative and analytical thinking in the classroom among students of all ages. The Internet opens up a whole new way of finding out exactly what it could be like to explore the depths of the ocean and swim amongst an array of strange and wonderful creatures.

Updating of Internet References

It is now common knowledge that Internet sites disappear from time to time or move to new locations. While all of the sites included in this package were accessible at the time of publication, it is anticipated that many sites will move, modify their layout or disappear from the WWW completely.

Ready-Ed Publications endeavours to check all sites on a regular basis and replaces any sites that have moved. In addition, attempts are made to locate missing sites that have relocated to another address. All website references in this series are clearly linked on our website from the home page. Click on "Ready-Ed Kids Book Links" and then follow the link for the **Activities for Young Learners** series. The direct address for this series is:

▶ **www.readyed.com.au/urls/AYL/index.htm**

Once at the above webpage, students will need to click on the book they are using (e.g. *Oceans Alive*) and the page number and title. By using this online index page, students do not have to laboriously type in any URLs, greatly reducing the margin for error when trying to locate sites that have long and complicated addresses. The website indexes are clearly set out and easy for students to navigate.

Should a broken link or a link that appears to have modified its layout be discovered, then please email **fixlink@readyed.com.au** with clear details of the topic and page number. Please note that ALL links that appear in each of the five resource books are included on the above site and are clearly labelled.

Teachers' Notes

About the Activities

The books in this series contain tasks that are divided into two types of activities:

ACTIVITY: These general activity pages require the use of the associated **Wonders of the Rainforest** resource book. The pages have been divided into three sections:

1. _Just the Facts:_ This section allows for quick information retrieval. There is no further research required, and students should be able to gather the information that they need straight from the resource book. Completing this section will provide students with a basic understanding of the concept being explored. Questions are literal and relevant to the topic.

2. _Creative Corner:_ This section requires students to apply their imagination and draw on analytical skills to find responses to the questions posed, based on what they have read. The answers are not in the text and in many cases there will be no right or wrong answers. The objective of these activities is to get students thinking. Sometimes students might be asked to discuss something with a partner. Sometime the questions might involve using another sheet of paper for writing. Children should be encouraged to share their thoughts where possible. These tasks also lend themselves to small group work where students are often more confident in sharing information.

3. _Think About It:_ This section extends on what the children have read in the resource book and thought about in the Creative Corner section. The tasks are usually an opportunity for students to be creative and to put themselves into another role, (e.g. Ocean creature, reef expert). Many of these activities can be done as homework or can be completed in spare time.

CYBER CHALLENGE: These activities require an Internet connection. The sites are easily accessible by first going through the Ready-Ed website (www.readyed.com.au/urls/AYL) and onto the index page for the **Oceans Alive** link. Bookmark this page for ease of use.

Students should be given ample opportunity to explore the website before starting the activity. Most tasks will require basic research skills and students should be proficient in navigating websites. The activities have a varied format and students will find they may have to complete tables using information at the site or they may have to write about something that the site focuses on (e.g. a species of plant or animal). Sometimes the site is used merely as a springboard for ideas for the student.

Curriculum Links

The activities in this series explore high interest themes across core subject areas such as Society and Environment, Technology, Science and English. The themes provide a backdrop for creative thinking strategies and different learning styles.

A table containing relevant learning outcomes is included on page 4. This information allows teachers to measure students' learning according to the subject area and particular strand. It is up to the teacher to see exactly how this fits into their local curriculum documents. All information in this book has been matched to the National Curriculum Framework.

Assessment

Detailed notes and assessment proformas have been included at the end of the activities. (See page 50-53.)

Promoting Creative Thinking

The following creative thinking strategies are used in this book:

Forced Analogies

❑ The idea is to compare the problem with something else that has little or nothing in common, and gaining new insights as a result.

❑ Thinking about the effects of a highly unlikely situation.

Lateral Thinking

❑ Looking at the problem in a different way, e.g. Aunty Annie is sitting knitting and three year old Jacob is upsetting her by playing with the wool. One parent suggests putting Jacob into the playpen. The other parent suggests it might be a better idea to put Annie in the playpen to protect her from Jacob.

Applied Imagination

❑ Use of prompting questions to elicit new ideas.

❑ How could I adapt this? Modify, magnify, minimise, reverse, substitute, rearrange, combine and so on. The line of questioning needs to be specific to the topic.

Problem Reversal

❑ State the problem in reverse. Change a positive statement into a negative one.

❑ Try to define what something is NOT.

❑ Figure out what everybody else is not doing.

❑ Change the direction or location of your perspective.

❑ Flip-flop results – think about achieving the opposite of what you want to achieve, e.g. "I want to increase my fitness. But how could I decrease my fitness?" Think about decreasing sales, failing a test, etc.

❑ Turn defeat into victory or victory into defeat, e.g. if I was stranded on the moon after a space shuttle problem, what good would come out of it? I might end up travelling through a wormhole to another dimension.

If I failed a maths test, what good would come out of it? I might focus on doing twice as well in my spelling test. Or I might start going to homework classes and meet new friends, and so on.

Brainstorms

❑ Brainstorms, particularly when done with a partner or small group, are an excellent method for exploring creative thinking. They can also lead on to mind-mapping®. Tony Buzan (www.buzan.com.au) pioneered the concept in 1970. The technique is an effective method of note-taking and useful for the generation of ideas by associations. Basically, the student starts in the centre of the page with the main idea, and works outward in all directions, producing a growing and organised structure composed of key words and key images, similar to a brainstorm but with more meaning. It can be done with students of all ages.

Mind-maps can use imagery, colour and direction to illustrate a concept. Emotions and feelings about the particular theme can be given as well.

For more information on mind-mapping, check out this website:
www.mind-mapping.co.uk/mind-maps-examples.htm

Other Titles in this Series:

•**Cool Antarctica** •**Endangered Animals** •**World Cultures** •**Wonders of the Rainforest**

Oceans Alive

Read about **Map It Out** in the Oceans Alive resource book to help you complete the following.

▸ Just The Facts

1. Name the five oceans of the earth.

    _____

    _____

2. Apart from *oceans*, what are some other areas of water called?

    S_____ G_____ and S_____

3. Looking at the world map, name the three oceans that surround your country. Circle the one that is closest to where you live.

    • _____ • _____ • _____

▸ Creative Corner

WRITE YOUR IDEAS ON THE BACK OF THIS PAGE.

*   Why do so many people choose to live near the ocean?

*   Make a list containing as many reasons as you can think of. Try to include sensible and creative ideas.

▸ Think About It

You are making a plan for a sailing trip around the country. On a new sheet, write some ideas for these questions:

*   *Who* will you take with you?

*   *What* will you bring?

*   *Where* will you stop along the way?

*   *When* will you go (what time of year)?

*   *Why* are you sailing around the country? To become famous? To raise money? To study the ocean? To have an adventure?
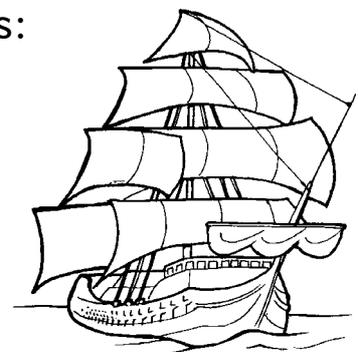
Ocean Environments
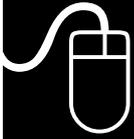
You will need access to the Internet or the Oceans Alive resource book to complete this activity.

Go to ▸ **www.readyed.com.au/urls/AYL/oceans.htm** *and click on the website for Page 13.*

Why do most of the living things in the ocean exist in the **sunlit zone**?

_____

_____

_____

In the picture below, use the words shown to label each zone. Draw some of the plants and animals that you might find in each zone.

- **rock pool**
- **coral reef**
- **deep ocean**
- **sunlit zone**
- **twilight zone**
- **midnight zone**
- **ocean floor**
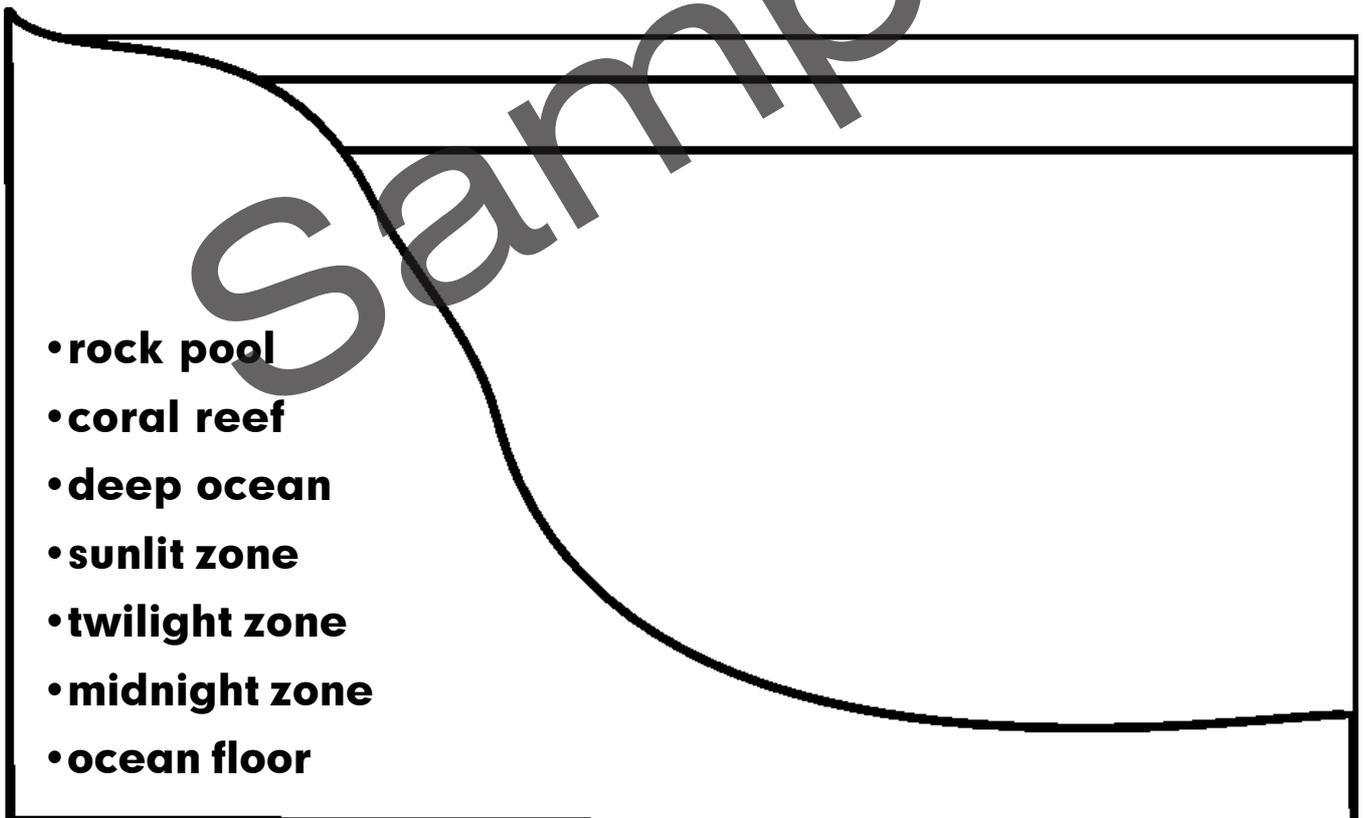
▸ **Extra**

Make a larger painting of your picture, using lots of bright colours. You could even make a 3-D model using a shoebox and scrap materials.