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 Ready-Ed
Publications

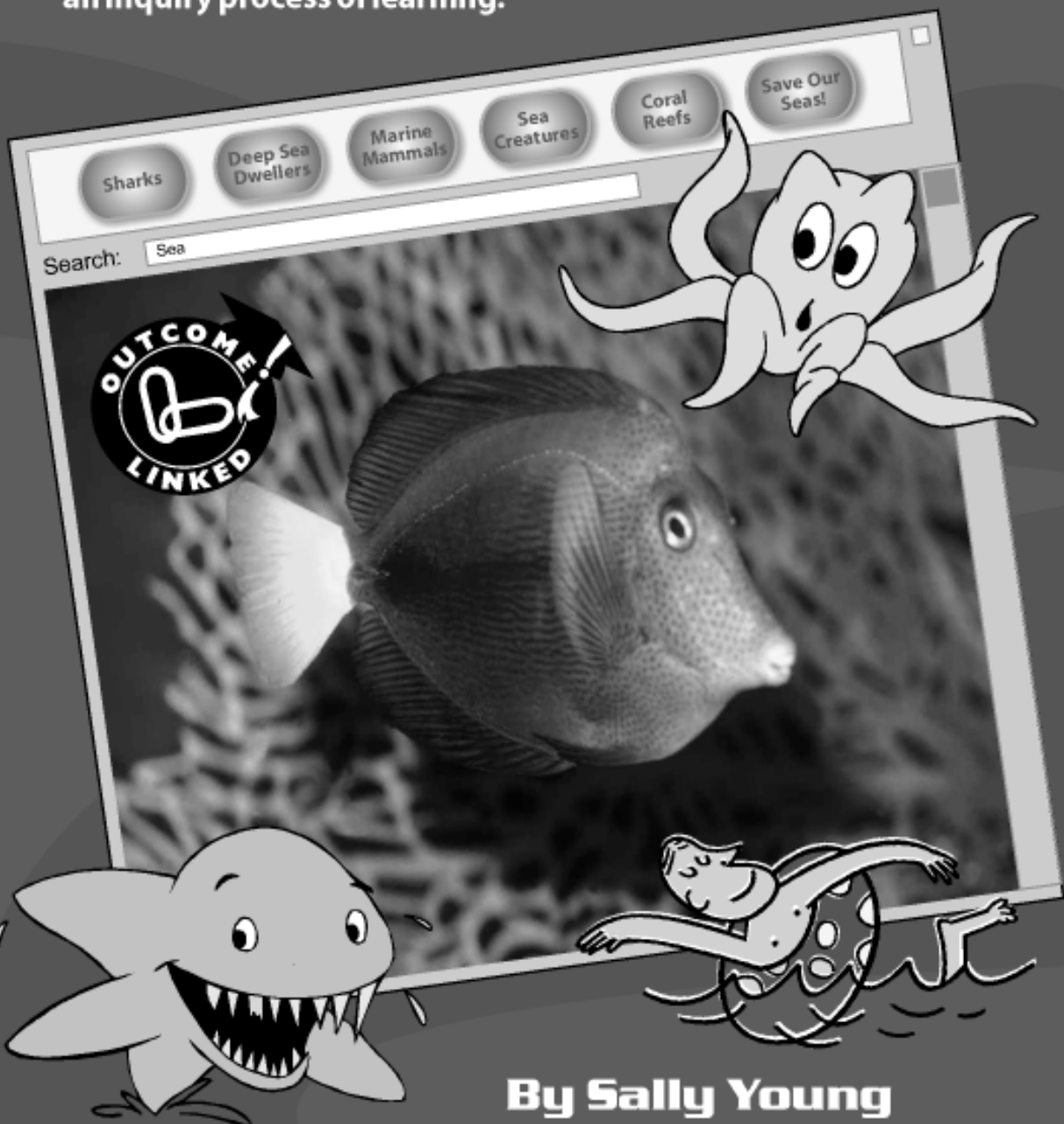
THE SEA

PHOTOCOPY
MASTERS

Internet
Inquiry

8+ years

- Internet activities designed to utilise an inquiry process of learning.



By Sally Young

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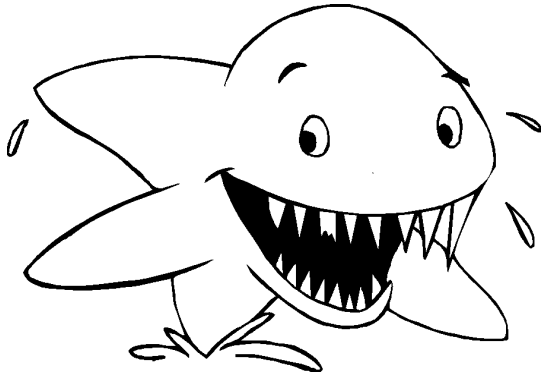
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Teachers' Notes:

Learning About The Sea



The sea has always been a popular theme in the primary years and lends itself to integration with many curriculum areas. It has also always been an area of high interest amongst students. There is a good deal of appropriate material to be found in children's literature, non-fiction texts and within the media that is topical and will add weight to any programme of work undertaken in the classroom.

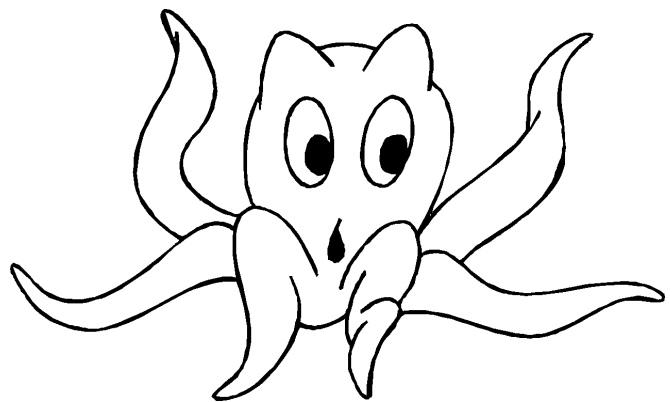
Through this theme, children will start to become aware of the interdependence of elements within the marine ecosystem. They will be introduced to a range of marine species and begin to understand how humans impact upon the world's oceans.

Only one of the optional task card activities in this book specifically calls for a classroom display. However most of the inquiry and/or task card activities will make excellent display items within the classroom.

Tasks are not generally specified as being individual or partner/group tasks but all are able to be used for either purpose. This allows some degree of flexibility to pair students together for learning support, or simply for the reason of the availability of classroom computers.

The areas dealt with within this book are:

- *The Sea*
- *Sharks*
- *Deep Sea Dwellers*
- *Marine Mammals*
- *Whales*
- *Other Sea Creatures*
- *Coral Reefs*
- *Save our Seas (endangered animals and protecting our oceans).*



Teachers' Notes

Inquiry Learning Process

This book is designed to facilitate the inquiry learning process, creating a platform for students to learn how to learn. The structure of the book is based on the premise that students will complete the activities in the order in which they are presented, starting with introductory fact-finding exercises and leading on to higher order processes and independent research.

Each section will include:

Background Notes

Background information to act as an introduction on the topic for students.

☒☒☒ Focusing Activity

Gathering Information

Students will use these activities to become familiar with the topic and the available information sources.

◆◆◆ Expanding Activity

Using Information

These activities allow students to clarify and refine their information sources and determine which materials will be relevant to the task, allowing them to explore the content in greater depth.

○○○ Inquiry Activity

Creating and Evaluating

At this stage students will be familiar with information sources for the theme. Students will be encouraged to combine their content understandings with the expansive array of information available on the Web, with the aim of making related investigations and reports. Activities are more open ended and allow for individual interpretation, allowing students to work within their own ability range.

Extra Task Cards

These activities provide alternative extension or remedial open ended inquiry activities to incorporate a range of learning styles and ability levels. They may also be used as early finishing activities or as individual projects.

☐ Information Literacy

Students should be encouraged to follow the steps of the information literacy process. There are plenty of websites (e.g. ▶ www.big6.com) that contain additional material about the steps involved in this process. A chart has been included on Page 7 and this can be photocopied and distributed to students as they prepare to undertake the inquiry tasks in this book.

☐ Internet Use

Activities in all sections are designed to have students utilising websites that have been carefully selected for each task. It should be emphasised that the World Wide Web is merely a source of information, along with print resources such as an encyclopaedia and CD-ROM.

☐ Evaluation

Evaluation and assessment complete the process for any learning experience. It is often difficult to assess creativity and inquiry learning skills as students approach tasks differently. These are only a sample of the questions that need to be addressed at the evaluation stage:

- ★ *Did the student communicate effectively in written form/ and or oral presentations?*
- ★ *Did the student demonstrate proficiency in using appropriate technologies?*
- ★ *Did the student reflect on his/her performance?*

☐ Assessment Sheets

Pages 10-12 contain assessment forms to be used at the teacher's discretion. The forms have been tailored to particular activities and have been categorised as follows:

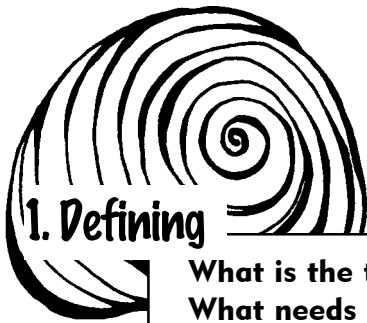
- Written Information
- Inquiry Skills
- Student Self-Assessment

The students should be encouraged to complete a self-assessment form as they complete each activity (*i.e. set them up in a box as part of the learning centre*). Teachers can then use these forms to help them assess the students' understanding of the inquiry learning process.

Information Literacy Chart

Six Steps

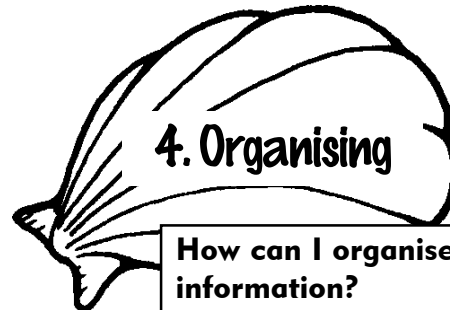
The activities in this book use an information problem-solving approach. This process incorporates technology skills across the subject areas of science and SOSE / HSIE / Society and Environment.



1. Defining

**What is the task asking?
What needs to be done?**

- Clarify the question and look at key words.
- Think about what you already know.



4. Organising

How can I organise this information?

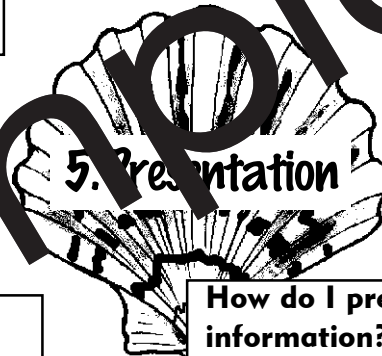
- Use a graphic organiser (e.g. flow chart, cluster/word web, story map, etc.)



2. Locating

What resource can I use?

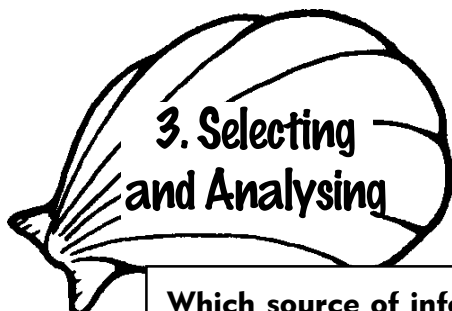
- View the suggested website.
- Navigate to find the appropriate information.
- Consult other resources such as previous websites, library books, World Book CD-ROM.



5. Presentation

How do I present this information?

- Project, fact file, diagram, story, journal entry, etc.
- Use MS PowerPoint or Word.



3. Selecting and Analysing

**Which source of information
is appropriate/relevant?**

- Decide what information you will use.



6. Evaluation

**Reflect on work and
conduct self-assessment**

- Use the student self-assessment sheet.

THE SEA

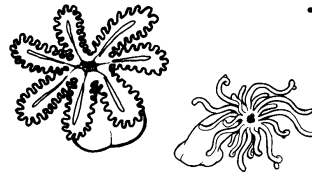
BACKGROUND NOTES

The world is mostly under water. In fact about 70 % of the world's surface is covered by ocean!

All the earth's oceans are connected to one another. For as long as people have been around the ocean has fed us and allowed us to travel to new lands.

The oceans control our weather. They store heat coming down from the sun and move it around the world through the flow of ocean currents. The ocean keeps the temperature on land more stable, heating the air in cold months and cooling it down when it is hot.

Tides in the ocean are caused by the moon, the sun and the rotation of the earth. Waves are caused by wind blowing over the ocean's surface.



The oceans of the world are home to thousands of species of fish, birds, mammals, reptiles and invertebrates. A huge number of the animals in the ocean are invertebrates. That means creatures with no backbone and includes animals such as sea slugs and jellyfish down to the millions of microscopic bugs that live in the sea.

Some oceans are very deep in parts. People who study the ocean have given names to its different layers.

The deeper down into the ocean, the colder and darker it is. Huge areas of the deep ocean receive no light at all. Most creatures in the ocean live quite close to the surface where there is light and the water is warmer.

However there are also a lot of creatures that live at an amazing depth, close to the warmth of underwater volcanoes and vents.

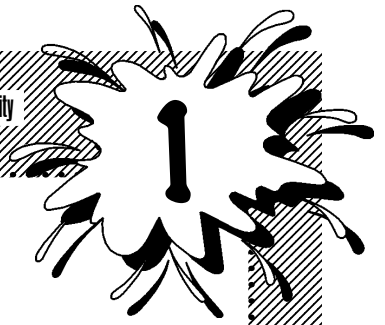
DID YOU KNOW?

- Within our solar system, Earth is the only planet known to have water on its surface.
- Different oceans and seas vary in temperature, colour and salinity (saltiness).

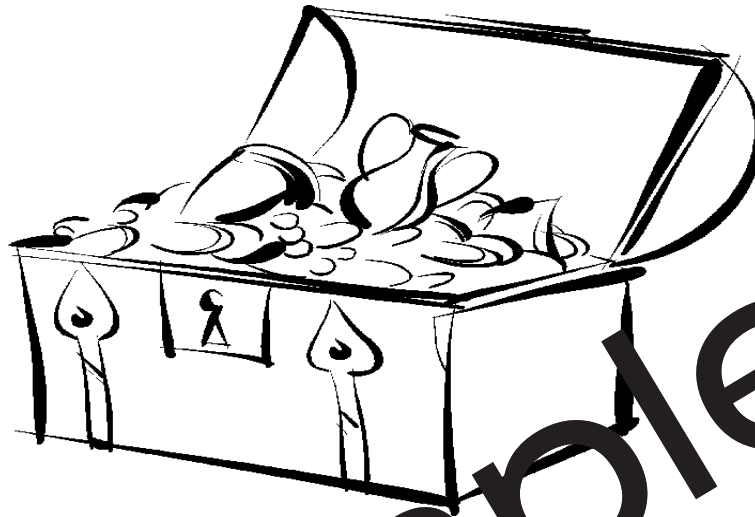


THE SEA

☒☒☒ Focusing Activity



Write as many words you can think of to do with the sea, in and around the treasure box.



Sample

Go to:

www.readyed.com.au/urls/inquiry/sea

The Sea

Click on Site 1

1. Choose eight new words to do with the ocean from the web page and write them in your treasure box. Create category headings and group your words on the back of the page, e.g. fish, sea plants, sea adjectives, etc.

2. What is the difference between an ocean and a sea?

3. Write three questions you have about the sea.

- ---
- ---
- ---

THE SEA

◆◆◆ ExpandingActivity



Go to: www.readyed.com.au/urls/inquiry/sea

The Sea

Click on Site 2

Type **sea** into the search box and press enter.

1. What is a "land locked" sea?

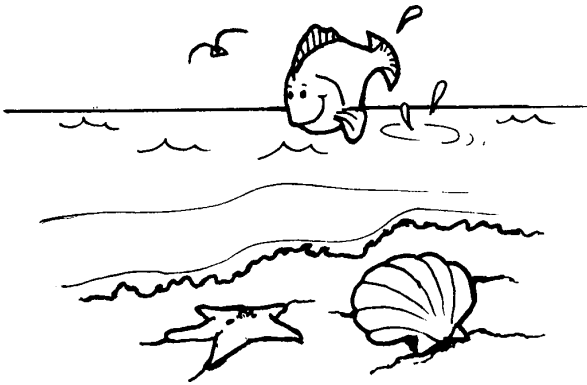
2. What is amazing about the Dead Sea?

3. What countries lie beside the Dead Sea?

4. Would the Dead Sea be a good place to go fishing? Why/ Why not?

5. Would you like to swim in the Dead Sea? Why/ Why not?

Type **ocean** into the search box and press enter.



What are the five oceans of the world?

- ---
- ---
- ---
- ---
- ---

What is the largest ocean?

