



The Shark Book

Fish with Attitude

By Dr Mark Norman

Sharks have been swimming around for hundreds of millions of years. A few are terrifying. Most are no more dangerous to humans than a puppy. Read The Shark Book and meet some fish with attitude.

About the book

The Shark Book: Fish with Attitude presents interesting information about sharks in an accessible format. The engaging text makes this book ideal for lower and upper primary and lower secondary students. There is general information about sharks, for example, they could sniff a drop of blood in an Olympic-sized swimming pool. There is specific information about species: size, habitat, prey and special features. The book explores the impact of shark and human interaction. Websites listed in the 'Glossary and Index' section of the text provide further learning opportunities for students.

Themes and curriculum topics

- Species
- Habitats
- Breeding
- Food and predators
- Climate change
- Oceans
- Reefs
- Protected species
- Risk of endangerment
- Animal rights



- Early humans
- Dinosaurs
- Early flora and fauna

THE HUMANITIES

The Age of Fishes

Study the timeline on page 2. When did the first sharks appear?

The name given to the geological era when the first sharks appeared is the Devonian Period. In groups research this period and complete the activities below.

- The Devonian Period is also called the 'Age of Fishes'. Why?
- Draw a picture of the earth during this time period.
- Choose two questions to research about this time period. (Your questions might relate to topics such as climate, plant life or sea levels.) Present your questions and answers to the class.

The Shark Book provides information on sharks from waters around the world.

- On a map of the world label the continents and oceans.
- On your map include a title, border, north point, legend and scale.
- Choose four of your favourite sharks. Mark on your map where these sharks are found.

The Shark Book explains that some sharks have dropped in numbers due to overfishing. As a class, read the article 'Overfishing' on the 'Greenpeace' website at <http://www.greenpeace.org/international/campaigns/oceans/overfishing>.

- Discuss how overfishing will have an impact on our diet and economy in the future.
- Make a list of things you can do as a class to help the situation.

SCIENCE

Shark Food

Study the sidebars in the text. Create a poster to illustrate the varying diet of the sharks



described in this book.

Shark features

On page 2 of the text we learn that sharks have survived because they are made tough. Choose three sharks described in this book and complete the table below on shark features and functions.

SHARK	SHARK FEATURE	FUNCTION
Smalleye Pygmy Shark	black colours	acts as a camouflage

(Teacher note: the website www.sharks.org, listed in the 'Glossary and Index' section of the book, has a series of worksheets on shark anatomy, shark features and functions and teeth. The website also has shark puzzles.)

Research a shark not listed in this book. Present your information in the same format as the author. Include:

- A heading that will gain reader interest
- A factual subheading
- The shark's scientific name
- A map showing where the shark can be found
- Information on habitat/depth
- A paragraph on interesting features
- A sidebar showing size and prey in visual and written form



Breeding

List three interesting facts that you have learnt about sharks and their babies.

Megalodon Shark

Create a fact file on the Megalodon Shark. Include:

- A picture
- Information on diet, anatomy and habitat
- The time period when this shark lived

Conservation

In groups plan a campaign to raise community awareness about the problems facing sharks. Present your campaign to the class as a power point presentation. Your campaign should include:

- An explanation of the problems facing sharks
- A list of reasons why it is important for humans to save sharks
- A list of ways that people can help save sharks
- A catchy campaign slogan

Oceans

Use the text and the 'SOS Teens' website at <http://www.sosforteens.com/sitemap.0.html> to complete the tasks and tables below.

- List two functions of the earth's oceans.
- How were oceans formed?
- What percentage of the surface of our planet is covered by salt water?



Ocean Chart

OCEAN	LOCATION	SIZE	TEMPERATURE	SALINITY	ANIMALS/ PLANTS FOUND THERE
The Arctic Ocean					
The Southern Ocean					
The Indian Ocean					
The Atlantic Ocean					
The Pacific Ocean					

An ocean is divided into five zones. Research these and complete the table below.

OCEAN ZONE	DESCRIPTION
The epipelagic zone	
The esopelagic zone	
The bathypelagic zone	
The abyssal zone	
The hadal zone	

ENGLISH

Reading and writing

Write a journal entry describing a visit to the beach. Include in your description what you see, hear, taste, touch and smell. Remember, your aim is to bring the scene alive for the reader, so make your descriptions as real as you can.

Find or draw a picture of some sharks and add captions. (See the back cover for an example.)

Many people are afraid of sharks. Write about a time when you have been afraid. Remember to explain how you overcame your fear.

Use one of the sharks in this book to write a narrative about a fish with attitude.



Speaking and listening

In 2005, two shark attacks occurred off the waters of South Australia. Some members of the public argued that the Great White shark should be culled for public safety.

- Discuss this issue as a class.
- Compile a list of reasons for and against shark culling. One format for recording the discussion is provided below.

Outline of Issue:			
Reasons for Culling	Evidence to support statement	Reasons against culling	Evidence to support statement

Read the poem 'Once by the Ocean' by Robert Frost.

- Frost describes clouds in an interesting way. As a class brainstorm other interesting ways to describe clouds.
- Through Frost's descriptions the writer can hear the ocean. What does the ocean sound like in this poem?
- As a class, brainstorm some other ways to describe the ocean's sound.



Book Features and Format

The Shark Book has many features that are important in factual texts:

- Table of contents (note the engaging headings and factual subheadings)
- Photographs, maps and diagrams (Note the use of scale to highlight size)
- Break-out boxes (information inside a box)
- Sidebars
- Glossary
- Index
- Books
- Websites
- Page numbers

1. Locate each of the above features in the book.
2. In most books headings are placed at the top of the page. How is the heading placement different in this book? Is the placement effective?
3. What sort of information is included in the break-out boxes?
4. What sort of information is included in the sidebars?
5. Why use boxes and sidebars to highlight this information?
6. List some features of this book's glossary and index that make it clear and well organised.
7. In many books, page numbers are placed at the bottom of the page. Do you think it is effective to have them at the top of the page as this book does? Why or why not?

VISUAL LITERACY

Photographs

- Choose one photograph and list three things you have learnt from it.
- Choose the photograph that you felt gave the most information. Explain your choice.
- What is your favourite photograph? Explain your choice.
- The front cover heading uses a clever technique to draw the reader's attention to the subject of the book. What is it?



CREATIVE ARTS

Create a collage to represent what you have learnt about sharks from the book.

Ken Thaiday is a senior contemporary artist from the Torres Strait Islands. His work makes reference to sharks and nature.

- Find examples of his work.
- Write a brief biography of his life so far.
- Create your own shark mask, inspired by Ken Thaiday's work.

Many artworks make reference to nature.

- Visit the 'Art Gallery of NSW' website.
- Create your own virtual gallery exhibition of works that make reference to nature. (<http://www.artgallery.nsw.gov.au/ed/myvirtualgallery>)



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Teacher Notes



ABOUT THE AUTHOR

Dr Mark Norman is a marine biologist and a world expert on octopuses, squids and cuttlefishes (the 'cephalopods'). He is Senior Curator of Molluscs at Museum Victoria where he undertakes marine biology research. He is also a trained teacher, an educational display designer and an experienced underwater cinematographer.

He has published extensively and his publications include 'A guide to squid, cuttlefish and octopuses of Australasia' and 'Cephalopods: a world guide'.

His research and projects with documentary makers including BBC, National Geographic and Discovery Channel has covered giant squid, poisonous blue-ringed octopuses, huge aggregations of southern giant cuttlefish and diving surveys of remote Indo-Pacific coral reefs.