



Ocean World Lesson One

‘Where on Earth are the Oceans?’

Contents: Where on Earth are the
Oceans?

1. Activity Sheet
2. PPT1 – Ocean World
3. 1a Narration for PPT 1
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Lesson One

'Where on Earth are the Oceans?'

Resources in this unit are:

- 1.Ocean World Powerpoint (9 slides.)
- 2.Worksheets: a) Teachers' crib-sheet narration for Ppt, b) Pupil Activity: Chart - The World Oceans. (*Pupils will discover the whereabouts the five Oceans plus find the deepest and shallowest parts of the World Ocean.*)
3. Activity Sheet Guide for teachers, includes key words, ideas and literacy work.
4. Video (x mins) - 'The Size of the Oceans.'
5. A list of 'sea music' is also included for use throughout the eight-lesson project.
- 6.The BIG Question (pupils are encouraged to discuss and/or write a sentence to answer - The BIG question: - *'If the Ocean is the largest environment on Earth - why do we know so little about it?*

Teachers can establish pupil progress when discussing with pupils what they have learnt so far. It is suggested that work can be glued into a BIG BOOK/JOURNAL where pupil's work can be built up over the full teaching unit of 8 lessons.

All lessons are flexible - so spend a whole day on the lesson, or one section a day or one a week to suit your Geography/Science time slot.

*All materials (c) gloria barnett
The Weird Fish Lady*



Where on Earth are the oceans?

Resources:



Ocean World



1a: Narration PPT 1
1b: Ocean Depths
(Map)



2 x Coloured dots / pupil
Colouring pencils / pens

Suggested Activities:



A: Teacher Led – Use PPT 1: Ocean World to introduce the topic

Discussion:

Show and discuss the whole presentation.

Narration (Info Sheet 1a) for the teacher to discuss ideas with the class.

Emphasise:

- The amazing size of the oceans; more water than land
- One ocean – the Pacific - covers almost half of the entire planet
- The deepest part of the ocean is 11 km in the Pacific
- It is an alien world to humans – we can't just walk in the sea and have a look around.



B: Key Words and Ideas

- Work with your students to establish key ideas and associated key vocabulary (See below).
- Create sentences / phrases to consolidate understanding.
- Start a Fact File and keep notes on these areas so they can use the information in their final celebration (assembly / drama / presentation).
- Organise into a Big Book or Active Learning Display.

LARGER DEEPEST BIGGEST OCEAN OF ALL ALIEN WORLD
PACIFIC ARCTIC ATLANTIC INDIAN SOUTHERN



C: Explore Ocean Depths

Info Sheet 1b

- Help pupils to read the information in the table
- Locate the Mariana Trench - right hand side – find a spot about midway between the P in Pacific and Japan. Identify it with a coloured dot.
- Locate the shallowest – the Arctic. Use different colour dot.
- Write a colour key showing the deepest and shallowest oceans.



D: What have we found so far

So far we have found over 15,000 species of fish, more than 210,000 species of all marine animals . . . and we believe there are between 2 and 10 million more to be found.



E: Answer the Big Question

If the Ocean is the largest environment on Earth - why do we know so little about it?

The answer is.....?

Narration for Activity 1 - Powerpoint**Slide 1****Title**

Photo shows two *masked butterfly fish* from the Red Sea in Egypt. These fish mate for life and always swim close together.

Slide 2**What makes our planet so blue?**

Planet Earth – photo taken by astronauts whilst on their journey to the moon in Apollo 17 in December 1972. Our Earth is shaped like a beach ball – round but flattened at the top and bottom. The blue is the water. White is clouds. Green is land.

Slide 3**More water than land?**

A diagram of a 'flat' Earth shows all the continents and all the oceans which make up the surface of our Planet. The Pacific has been split in half in order to lay out the Earth diagram as a flat surface. The image shows all the continents (land) at one time. The five main Oceans: Pacific, Indian, Atlantic, Arctic and Southern Oceans are sometimes called "The World Ocean" as the water droplets travel freely between the different oceans.

Slide 4

Seventy per cent of the surface of the Earth is Ocean - thirty per cent is land

Differentiate for children - do they know about percentages?

ASK: How much water in the Pacific? (this is disguised due to the map of the world being sliced through the Pacific Ocean and shown at both sides (both East and West), and therefore is more difficult to judge.) Answer on next slide.

Slide 5**The Pacific is the largest ocean on our planet. How much of the surface does it cover?**

Photo taken from a satellite in space. The Pacific is the largest ocean on Earth and covers nearly one-half of the whole planet. How much of the surface does it cover?

Slide 6**The Pacific Ocean takes up almost half of the planet.**

Forty six per cent. You can just see a bit of Australia (bottom left), the Islands of New Zealand (right of Australia), some Pacific Islands (dotted around the middle) and a bit of the USA (at the top right.)

Question: If the Pacific takes up forty six per cent, what percentage of the Earth do all the other Oceans make up? **Answer:** The Atlantic Ocean, Indian Ocean, Arctic and Southern Ocean make up 24%.

Slide 7

Question: Which bits of the World Ocean do you think is the deepest?

Slide 8

The deepest part is at 11 km down in the Mariana Trench.

The deepest part of the World Ocean is in the North Pacific (top right of the diagram) in the Mariana Trench. At that point, it is eleven kilometres down from the surface to the sea bed. It is further to go to the depths of the Ocean, than it is to climb Mount Everest, which is the highest point on land, standing at eight kilometres above the surface of the water.

Question: Why is it important to humans that two-thirds (66%) of the Earth is more than 100 metres deep? **Answer:** Think about how difficult it is for humans to explore the underwater world beyond scuba diving at 30 metres down.

Slide 9

Key Fact - how many fish and other animals have we found so far that live in the oceans?

The World Oceans

	Average Depth (Metres)	Deepest	Depth (metres)
Arctic Ocean	1,038	Eurasian Basin	5,450
Atlantic Ocean	3,735	Puerto Rico Trench	7,725
Indian Ocean	3,883	Java Trench	8,648
Pacific Ocean	4,187	Mariana Trench	11,034



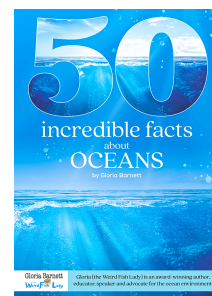
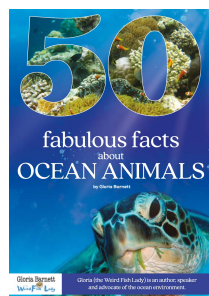
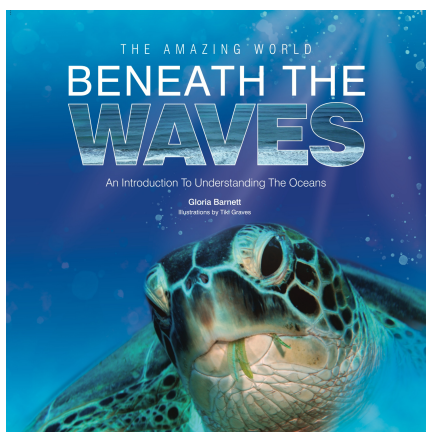
1	The Mystic	Van Morrison
2	Yellow Submarine	The Beatles
3	https://www.youtube.com/watch?v=GHgE5fQxvW8	
4	The Hebrides (Fingal's Cave http://www.bbc.co.uk/programmes/articles/3Fm3H66YnxN2slrSX3mMvh/top-six-sea-pieces	Felix Mendelssohn
5	La Mer	Debussy
6	Sea Fever	John Ireland
7	Storm	Benjamin Britten
8	The Flying Dutchman	Richard Wagner
9	Octopuses Garden	Beatles
10	Under the Sea	Little Mermaid
11	Hawaii Five-O	The Ventures
12	Shark Attack	John Williams
13	Wipe Out	The Safaris
14	Sittin' on the Dock of the Bay	Ottis Reding
15	Pirates of the Caribbean	Any
16	Sparticus (Onedin Line Theme)	Kachaturian
17	Preservation / Kyance Cove / Marazion	Keynvor
18	The Aquarium: Carnival of the Animals	Saint -Saens

Ideas to enhance this lesson ...

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Purchase a large inflatable globe -
(available from Amazon) or
a few small globes - one per table for
your classroom.

Buy your Teachers' 'Guide *'The
Amazing World Beneath the Waves'* or
the '*50 Facts*' Books for your
classroom from the book section on
www.barnettauthor.co.uk



TEN Powerpoint Slides

- copy and paste into a Powerpoint file.



Planet Earth

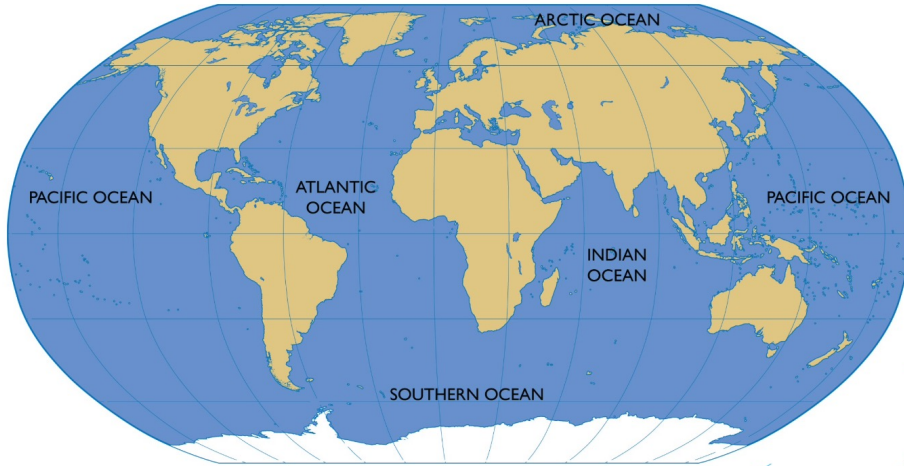


What makes
our planet so
blue ?

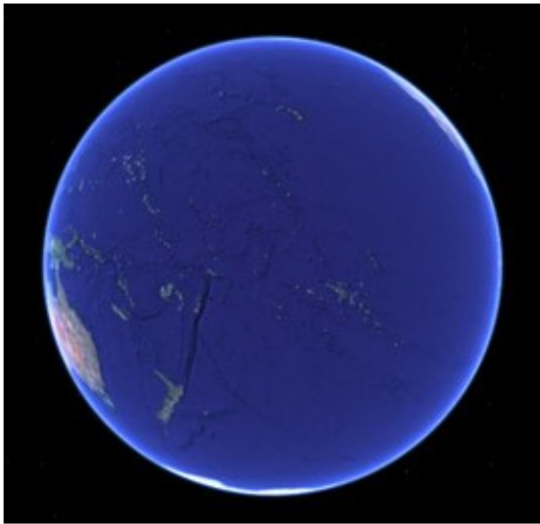
More water than land?



70% of the Earth is Ocean
30% is Land

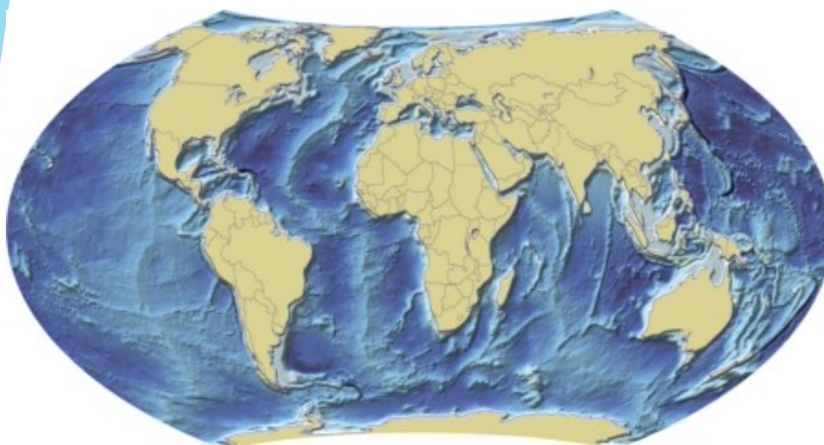


Pacific Ocean

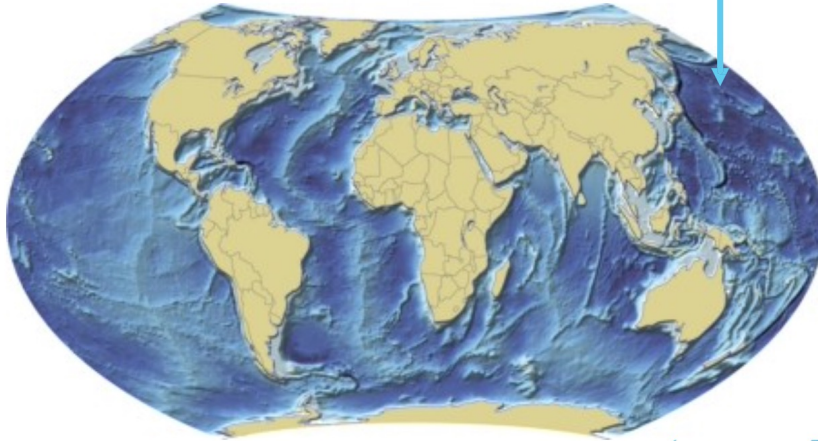


The Pacific is the largest ocean on our planet and covers 46% of the Earth's surface.

The darkest blue shows the deeper parts of the ocean



The deepest ocean is at 11 km down – at the Mariana Trench



Key Fact

So far humans have found over 15,000 species of fish in the ocean, more than 210,000 of all marine species (fish, reptiles, mammals, birds) ... and we believe there are between 2 and 10 million yet to be found.



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