

CONBAT+



MOTION IN THE OCEAN

For the student

Martine Kervran



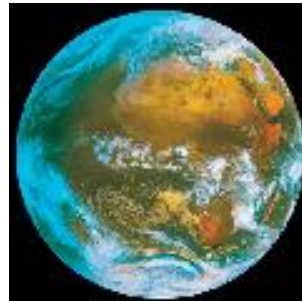
MOTION IN THE OCEAN

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1. THE OCEANS IN THE WORLD

WORKSHEET 1

Grouping 



- 1- Fill in the chart below after discussing the items with your friends and your teacher (use the language you know best / your teacher will help you if necessary)

What we know about the ocean	What we want to Learn about the ocean
-	-
-	-
-	-
(...)	(...)

- 2- **Answer the question** after discussing it with your friends and your teacher (use the language you know best/ your teacher will help you if necessary)



Why does the water of the sea move?

.....
.....



WORKSHEET 2

Grouping

1- Read the definitions and label the map

Oceans cover nearly 71% of the Earth's surface.

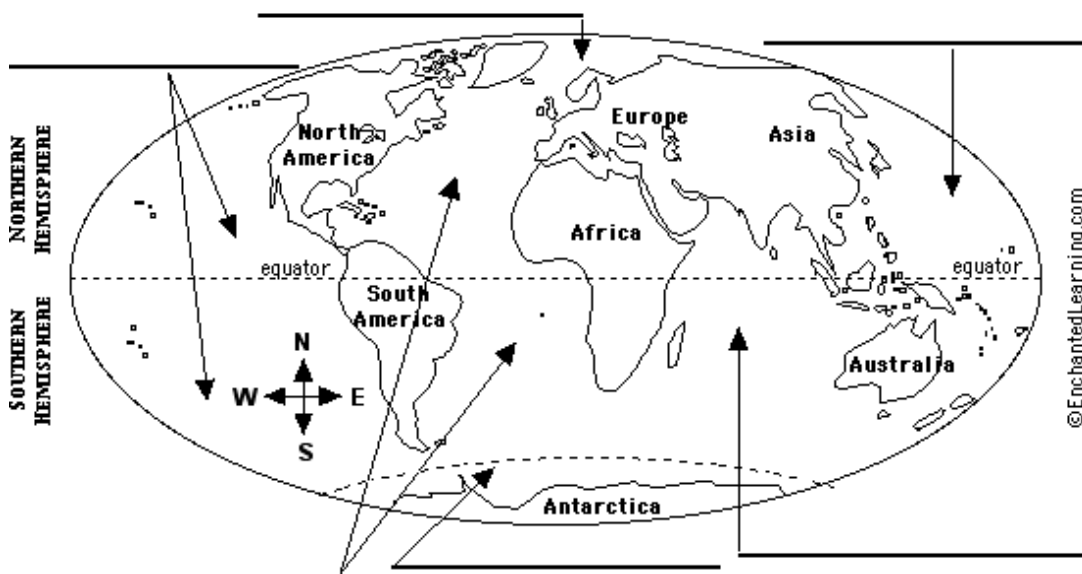
The **Pacific Ocean** is the largest ocean and borders the five continents.

The **Atlantic Ocean's** neighbouring seas include the Mediterranean Sea, the North Sea and the Baltic Sea.

The **Arctic Ocean** is the smallest ocean. It surrounds the North Pole. It is frozen all the time, except at its edges.

The **Southern Ocean** is where you'll find Antarctica and the South Pole.

The **Indian Ocean** borders areas from the southern hemisphere.



2- Check your answers and learn more about the five oceans by following this link:

<http://www.gdrc.org/oceans/world-oceans.html>

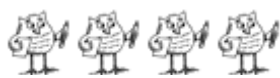


WORKSHEET 3: MULTILINGUAL OCEAN!

Grouping: 

Look at the translations of the world ocean in a few different languages and try to answer these questions

Language	The word ocean
German	ozean
French	océan
Italian	oceano
Russian	океан
Danish	ocean
Deutch	ocean
Spanish	océano
Portuguese	oceano
Suedish	ocean
...	...
...	...



Then discuss them with the whole class (use the language you know best/ your classmates and teacher will help you if necessary)

What do you notice?

.....

Can you guess why?

.....

Can you write the word ocean in any other language(s)? If so, add it to the list above



2. WAVES AND WIND

WORKSHEET 1: HOW CAN WAVES BE DESCRIBED?



- ✓ Bring photographs, pictures or paintings about waves to class
- ✓ Share them with the class and describe them



Match each word to its definition

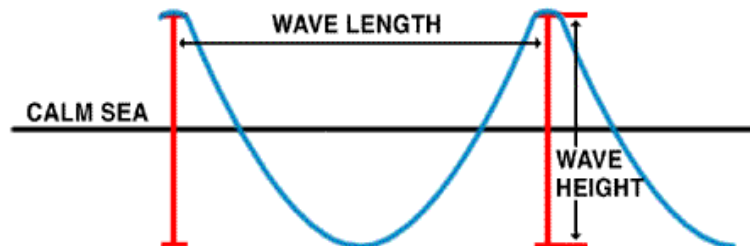
Duration	bottom of a wave
Trough	length of time
Crest	distance over which the wind blows
Fetch	top of a wave



WORKSHEET 2: HOW ARE WAVES MEASURED?

grouping

1- 1. Look at the diagram and fill in the blanks in the text with words from the list below



Wave model from www.ndbc.noaa.gov/educate/educate.shtml

The water in the ocean is always ----. Waves are one movement of the ocean----.
They are caused by the----.The ----of these waves depends on wind----, on the ----
of the wind and on the----. It is measured from the wave ----to the wave----. The wave ----is
defined as the horizontal distance between two successive----.

Water; moving; height; waves; length; crest ; troughs; wind ; duration; fetch; speed

2- Create your own ocean wave!

Follow this link and discover the wave machine...

<http://www.pbs.org/wnet/savage seas/multimedia/wavemachine.html>



3- WHEN THE WAVES GROW BIGGER AND BIGGER...

WORKSHEET 1: THE BEAUFORT WIND SCALE

In 1805, British admiral Francis Beaufort devised a descriptive wind scale to standardize wind reports. The Beaufort wind scale is still used today.




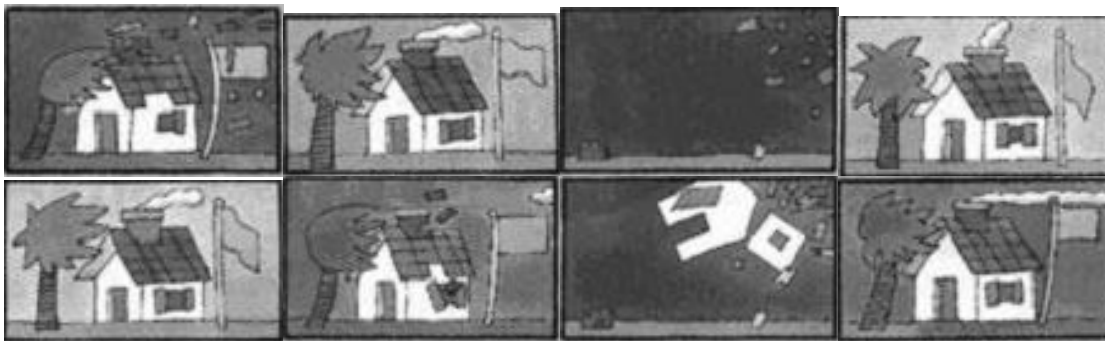
1- Look at the chart below and read it carefully

Beaufort scale number	Descriptive term	Wind speed km/h	Description of the sea	Description of the land
0	Calm	0	Sea like a mirror.	
1-3	Light winds	19 km/h or less	Small wavelets	
4	Moderate winds	20 - 29 km/h	Small waves	
5	Fresh winds	30 - 39 km/h	Moderate waves	
6	Strong winds	40 - 50 km/h	Large waves	
7	Near gale	51 - 62 km/h	Sea heaps up and white foam	
8	Gale	63 - 75 km/h	Moderately high waves of greater length	
9	Strong gale	76 - 87 km/h	High waves; spray may affect visibility.	
10	Storm	88 - 102 km/h	Very high waves ; the surface of the sea takes on a white appearance with visibility affected.	
11	Violent storm	103 -117 km/h	Exceptionally high waves; the sea is completely covered with long white patches of foam.	



12+	Hurricane	118 km/h or more	The air is filled with foam .The sea is completely white; visibility is very seriously affected	
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2-  In pairs, cut out the drawings and stick them in the right place in the above chart to describe the land at each stage.





WORKSHEET 2: ALL KINDS OF STORMS AT SEA

Grouping

There are various kinds of storms at sea that are given different names. Those names depend on the region of the world where those phenomena generally occur.

1- Link each English word to the original word you think it comes from.

English word	original word
Hurricane	<i>Kyklōma</i>
Typhoon	津波
Tsunami	<i>Huracan</i>
Cyclone	台风

2- Try to find out what is the name of each of those languages

The word hurricane comes from.....

The word typhoon comes from.....

The word tsunami comes from.....

The word cyclone comes from.....

3- Look for a definition of each term in a dictionary and write it down:

Hurricane:

Typhoon:

Tsunami:

Cyclone:

4- Look for more information about those phenomena on the Internet

Read the information on those web pages and write a very short summary of the contents



Cyclones [http://ww2010.atmos.uiuc.edu/\(Gh\)/guides/mtr/cyc/def.rxml](http://ww2010.atmos.uiuc.edu/(Gh)/guides/mtr/cyc/def.rxml)

Hurricanes : [http://ww2010.atmos.uiuc.edu/\(Gh\)/guides/mtr/hurr/def.rxml](http://ww2010.atmos.uiuc.edu/(Gh)/guides/mtr/hurr/def.rxml)

Typhoons:

http://library.thinkquest.org/03oct/00477/NatDisasterPages/jeb.webpages/Typhoon/typhoon_definition.htm

Tsunamis: <http://www.pbs.org/wnet/savage seas/neptune-side-tsunamis.html>



ASSESSMENT

1- Grouping





Discuss with your friends and your teacher and fill in the chart below

What we have learnt

2- Grouping

Now that you know what you have learnt, is there anything else you would like to know about oceans?

3- Make your own multilingual ocean scrapbook

- ✓  Collect information and documents about waves and other information about the motion of the ocean from this module, classbooks, websites, magazines or books.
- ✓  Make sure the documents
 - come from various sources,
 - include various types of information (texts, pictures, drawing, paintings, photographs, stories...),
 - are written in different languages.
- ✓  Choose the most interesting ones, put them together, arrange them into chapters and make them into a nice file or book.
- ✓  Share your ocean scrapbook with your classmates and your teacher.