CONBAT+

CONTENT BASED TEACHING ConBaT+ MOTION IN THE OCEAN

For the Teacher

Martine KERVRAN

2/7/2011

EMPOWERING LANGUAGE PROFESSIONALS
VALORISER LES PROFESSIONNELS EN LANGUES
SPRACHLEHRENDE IN IHRER ROLLE STÄRKEN

European Centre for Modern Languages
Centre européen pour les langues vivantes
Europäisches Fremdsprachenzentrum

COUNCIL OF EUROPE CONSEIL DE L'EUROPE

TABLE OF CONTENTS

INTRODUCTORY INFORMATION

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TARGET GROUP:

9-14

SUBJECTS:

Geography & Physical Sciences

AIMS:

- Learn about the location and names of the main oceans in the world
- Identify the main causes for water movement in the ocean.
- Explore the relationships between wind and ocean waves.
- Learn about storms at sea

KEY COMPETENCIES REGARDING:

COMMUNICATION IN LANGUAGE(S):

- improve reading competencies in English as a foreign language
- learn English vocabulary related to the topic of oceans and ocean water movement
- learn about the etymology of some English words
- learn about borrowings and exchanges between languages

LEARNING TO LEARN:

- Look for information and share it with others

DIGITAL COMPETENCES:

- looking for information on the Internet and being able to sort it out

SOCIAL AND CIVIC COMPETENCES:

- Cooperate with peers

TIMING OF THE OVERALL ACTIVITIES:

- Approximately 6 hours

THE OCEANS IN THE WORLD

Notes for the teacher: This first set of tasks aims at introducing the topic by learning the names of the five oceans and localizing them.

1. Learner worksheet 1:
    - discuss the contents of the chart (worksheet 1.1)with the whole class
    - ask the pupils to complete the chart individually
    - discuss the question of worksheet 1.2 collectively and ask the pupils to answer it individually
2. Learner worksheet 2 is to be done individually and self-corrected
3. Hand out learner worksheet 3
    - ask the pupils to fill in the chart and answer the questions individually
    - discuss the questions collectively and ask the pupils to complete the answers

Timing: 90 minutes

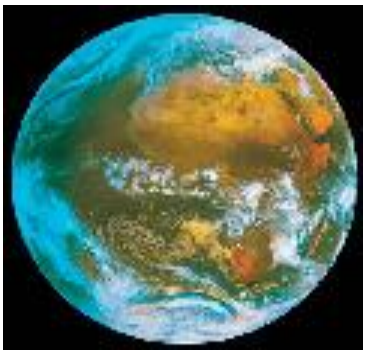
Material required: worksheets 1, 2, 3

Grouping :  **;**  **;**

Focus on content: localisation of the five oceans

Focus on language(S): names of the oceans; name of the continents; geographical terminology**;** etymology of the word ocean; language families

LEARNER WORKSHEET 1



1.1. **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**
- - - (..)	- - - (...)

1.2. **Answer the following 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?

……

…….

LEARNER WORKSHEET 2

Grouping:

2.1.Read the definitions and label the map

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

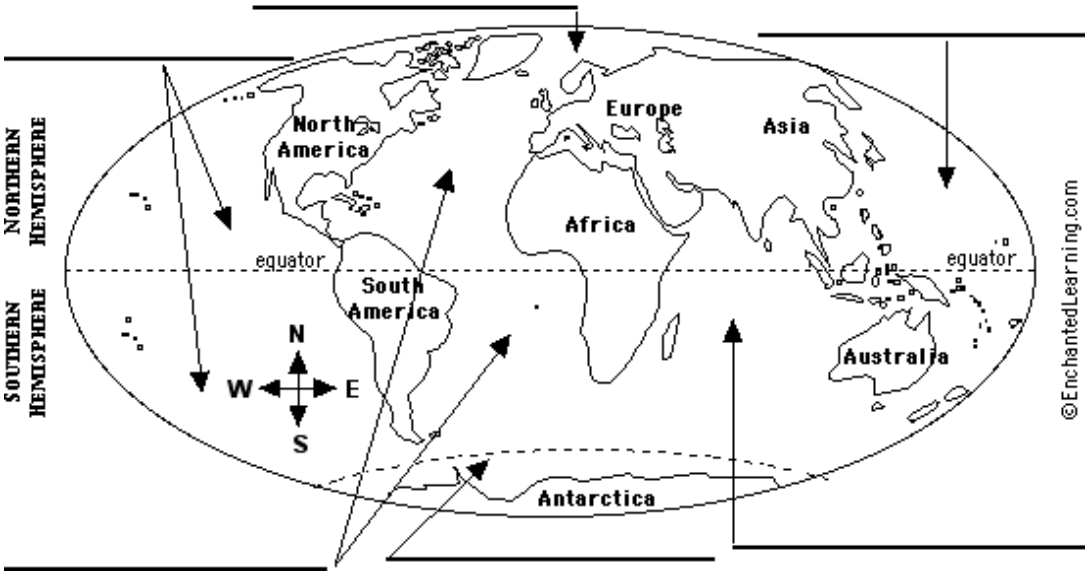
The Pacific Ocean is the largest ocean and borders the five continents.

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.



2.2. Check your answers and learn more about the five oceans by following this link:

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

LEARNER WORKSHEET 3: MULTILINGUAL OCEAN!

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
Dutch	oceaan
Spanish	océano
Portuguese	oceano
Swedish	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.

Answer sheet (learner worksheet 3): multilingual ocean

Martine KERVRAN

The word ocean looks the same in many languages because it comes from the ancient Greek word Ωκεανός, *Okeanos* (Oceanus). **Oceanus** was believed to be the world-ocean in classical antiquity, which the ancient Romans and Greeks considered to be an enormous river encircling the world. This world-ocean was personified as a Titan, a son of Uranus (the Sky) and Gaia (the Earth).

WAVES AND WIND

Notes for the teacher:

Learner worksheet 1: the correction of part 2 is made through collective agreement. To confirm the answers, the pupils can be asked to look up the words in a dictionary

Learner worksheet 2: the work is basically individual but pupils can help each other. The teacher can give complementary explanations about the diagram

Timing: 2 hours

Material required: worksheets1&2;

Resources: photographs, pictures or paintings of waves

Focus on content: (physical sciences): formation and measurement of waves

Focus on language: vocabulary of wave components (crest; troughs; foam…)

LEARNER WORKSHEET 1: HOW CAN WAVES BE DESCRIBED?

1- 

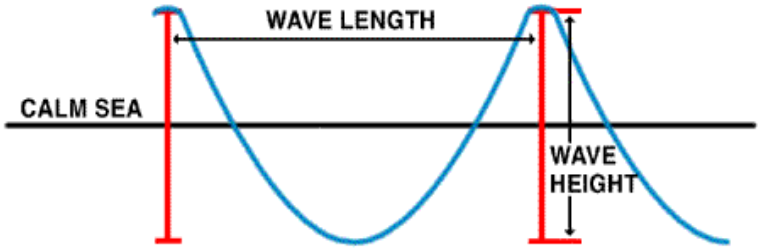
- ✓ Bring photographs, pictures or paintings about waves to class
- ✓ Share them with the class and describe them

2-  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

LEARNER WORKSHEET 2: HOW ARE WAVES MEASURED?

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

Answer sheet

The water in the ocean is always **moving**. Waves are one movement of the ocean **water.** They are caused by the **wind**. The **height** of these waves depends on wind **speed,** on the **duration** of the wind and on the **fetch**. It is measured from the wave **crest** to the wave **trough**. The wave **length** is defined as the horizontal distance between two successive **waves**.

2- - Create your own ocean wave!

Follow this link and discover the wave machine…

http://www.pbs.org/wnet/savageseas/multimedia/wavemachine.html

WHEN THE WAVES GROW BIGGER AND BIGGER…

Notes for the teacher:

Learner worksheet 1 : additional information about Beaufort and his scale can be given to the pupils, if the teacher finds it necessary.

Learner worksheets 2 and 3 : the correction can be done collectively. The teacher can give all the information needed to the understanding of the process of word exchanges between languages. The interest of etymology to better understand concepts (here: physical phenomena and geographical terminology) should be underlined.

Timing: 90 minutes

Material required: worksheets 1, 2, 3

Focus on content: (physical sciences): wind as the main cause for storms; the Beaufort wind scale

Focus on language/s: storms words and their etymology; borrowings

Language skill: reading comprehension

LEARNER WORKSHEET 1: THE BEAUFORT WIND SCALE

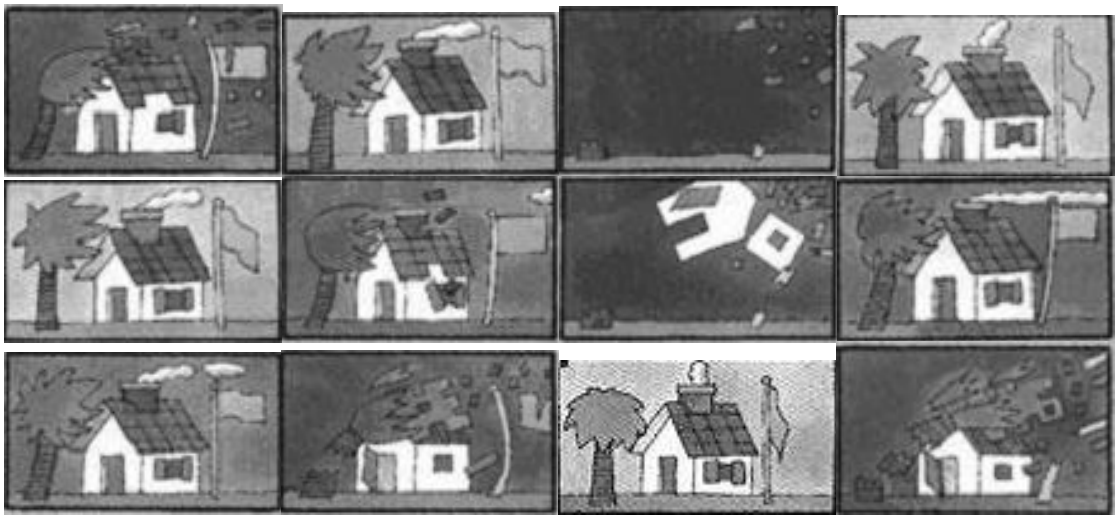
In 1805, British admiral Francis Beaufort devised a descriptive wind scale to standardize wind reports. The Beaufort wind scale is still used today.

1-  **Look at the chart below and read it carefully**

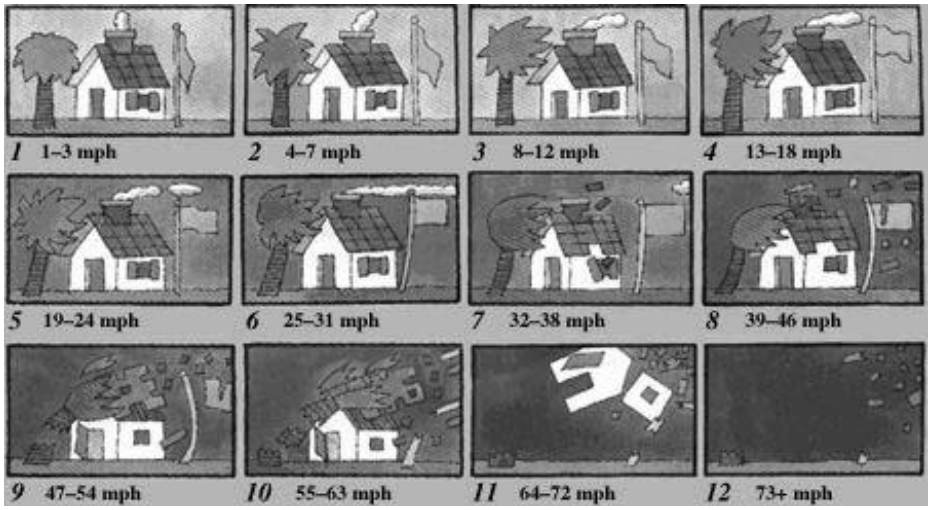
Beaufort scale number	Descriptive term	Wind speed km/h	Description of the sea	Description of the land
0	Calm	0	Sea like a mirror.	
1-3	Light winds	19 km/h or less	Small wavelets	
4	Moderate winds	20 - 29 km/h	Small waves	
5	Fresh winds	30 - 39 km/h	Moderate waves	
6	Strong winds	40 - 50 km/h	Large waves	
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	

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.



Answer sheet :



LEARNER WORKSHEET 2: ALL KINDS OF STORMS AT SEA

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	*Kyklōma*
Typhoon	津波
Tsunami	*Huracan*
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……..

Answer sheet:

The word hurricane comes from Spanish

The word typhoon comes from Chinese

The word tsunami comes from Japanese

The word cyclone comes from Greek

The word **hurricane** came to English from the Spanish word **hurican**. Spanish explorers and conquerers took the word from the **Taino word, meaning storm**. Taino is an extinct language from the Bahamas.

The word **typhoon** comes from the Chinese word 台 风(TAI-FUNG) which means " great wind".

The word **tsunami** comes from the japanese word 津波, meaning "port" (tsu)

The word **cyclone** comes from modifications of the Greek word ***kyklōma*** *which means* wheel and is derived from *kyklos, meaning* circle.

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

Hurricane: ----------

Typhoon: ----------

Tsunami: ----------

Cyclone: ----------

Answer sheet:

Hurricane: A tropical cyclone with winds that have reached a constant speed of 74 miles per hour or more.

Typhoon: A tropical cyclone occurring in the western Pacific or Indian oceans

Tsunami: A huge ocean wave that can travel at speeds up to 600 mi/hr (965 km/hr), hundreds of miles over open sea before it hits land.

Cyclone: An atmospheric circulation system in which the sense of rotation of the wind about the local vertical is the same as that of the Earth's rotation

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

Hurricanes: 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/savageseas/neptune-side-tsunamis.html

LEARNER WORKSHEET 3: FIND OUT ABOUT BORROWINGS IN THE ENGLISH LANGUAGE

1- **The words hurricane, typhoon and tsunami were borrowed to other languages. Can you guess why?**

2- **Those other words from the geographical domain are also loan words.Look for their meaning in a dictionary and try to guess which langauge they were borrowed from**

avalanche : ----------

canyon : ----------

fjord : ----------

geyser : ----------

golf : ----------

iceberg : ----------

jungle : ----------

Answer sheet:

Avalanche : Switzerland Romansh

Canyon : Spanish

Fjord : Norwegian

Geyser : Icelandic

Golf : Gaelic

Iceberg : Dutch

Jungle : Hindi

3- **Can you think of any other English words that were borrowed to other language?**

Which language were they borrowed to? Make a list with your teacher and try to classify them according to the language they come from or the domain (food; clothes; animals ...) they belong to

More loan words and their origin:

http://www.krysstal.com/borrow.html

http://efl.htmlplanet.com/words_from_otherlingos.htm

The history of borrowings in the English language

http://www.ruf.rice.edu/~kemmer/Words04/structure/borrowed.html

ASSESSMENT

Note for the teacher: The information for the scrapbook should be collected all along the module and arranged at the end.

1- **Discuss with your friends and your teacher and fill in the chart below**

What we have learnt

2- **Have a look at what you had written in the chart "what we know / what we want to learn" at the beginning of the module and discuss what you have learnt and what else you would like to know about the 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.

REFERENCES

A few websites about the ocean:

Oceanlink: http://oceanlink.island.net/

Links to a glossary, ocean facts, career information, and more.

OceanPortal: http://ocean.si.edu/

> "OceanPortal is a high-level directory of Ocean Data and Information related web sites."

Ocean Planet, Smithsonian: http://seawifs.gsfc.nasa.gov/ocean_planet.html

> A virtual tour of the Ocean Planet exhibit at the Smithsonian's Museum of Natural History.

Oceanic Information Center: http://www.oceanic.udel.edu/

> Resources on oceanographic experiments, research projects, databases, etc.