

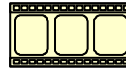
THE WORLD'S BIOMES, A NATURAL SCIENCE PROJECT

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<p>GENERAL OBJECTIVE</p> <ul style="list-style-type: none"> • Use of TIC in a CLIL Project. 	<p>RESOURCES</p> <ul style="list-style-type: none"> • Internet (computer room) • Power Point Presentation • Photocopies • Cardboard, glue and scissors.
<p>TEACHING OBJECTIVES</p> <ul style="list-style-type: none"> • Introducing key concepts-scientific • Introducing key language • Developing awareness on different climates. • Using internet to build up knowledge. • Rising awareness on the importance of ecosystems. • Noticing how biomes work across the world • Preparing to display presentations about biomes. 	<p>LEARNING OUTCOMES</p> <ul style="list-style-type: none"> • Learn about the different land biomes • Work cooperatively to gather and share information. • Learn to use internet as a source of information. • Learn vocabulary related to nature. • Write about biomes using the information you have been given. • Be able to use English to learn things about the climate of the world
<p>TIMING</p> <ul style="list-style-type: none"> • Six sessions (two weeks class) 	<p>LEVEL</p> <p>This unit is addressed to a 4th ESO class with an A1-A2 level of English.</p>

TASKS _____ Student's Handouts

● TASK 1: VIDEO DECIDUOUS FOREST



Before-watching activities – Revise the following vocabulary and check the words you do not know in your dictionary. Then try to classify them into these two categories.

Deer	carnivores	Rodents	Beech	Beards	seed	Herbivores,
Birch	Opossums	skunks	insects	Magnolia	Oak	chipmunk
Maple	basswood	Fox	owls	Hickory	Bears	cougars
						squirrel
						deer
PLANTS				ANIMALS		

While-watching activity – You are going to watch a short video describing the deciduous forest. Pay attention to the grid and try to give the correct order to the items described in this video.

PLANTS / FLORA	
TEMPERATURES / CLIMATE	
LOCATION	
PRECIPITATIONS	
ANIMALS / FAUNA	
ADAPTATION OF PLANTS AND ANIMALS	

TASK 2: READING - The World's Biomes

We have learned about the Deciduous forest in the video activity above. Now you will read and learn some more about other biomes of the world.

- As you all know now **Biomes** are climatically and geographically defined areas of ecologically similar climatic conditions such as communities of plants, animals, and soil organisms, and are often referred to as ecosystems
- The importance of biomes cannot be overestimated. Biomes have changed and moved many times during the history of life on Earth. More recently, human activities have drastically altered these communities. Thus, conservation and preservation of biomes should be a major concern to all.

We generally group land biomes into six major types:

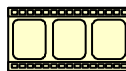


IDENTIFY THE LAND BIOME AND ITS DESCRIPTION

1- This biome stretches across a large portion of Canada, Europe and Asia. It is the largest biome in the world. Winters are cold. Summers are warm. Lots of conifers grow here. It is very, very cold in the winter. But when the warm summer comes, the ice and snow melt. The sun shines for days in the summer, because this biome is near the top of the world. Here You will find long nights in the winter and long days in the summer. There is not much diversity of trees, you can find conifers and evergreen trees like pine trees.	A- THE RAINFOREST
2-This biome is located at the top of the world, around the North Pole. Temperatures during the arctic winter can drop to -51 C. During the summer low-growing plants bloom. The most abundant plant is lichen. We find animals like snow owls or arctic foxes among many others.	B- THE GRASSLAND
3- It is dominated by grasses rather than large shrubs or trees. There are two main divisions: Tropical or savannas and Temperate. In addition to the prairies of the U.S. Midwest, they have different names in other parts of the world. In South America, grasslands are called "pampas"; in Europe, "steppes"; in Africa, "savannas". Depending on the continent you can find zebras, lions and elephants among many other animals.	C- THE TAIGA
4- This biome is found close to the equator, and most of them forests are found in Latin America. It gets a lot of rainfall during the whole year. It has a lot of humidity. It is estimated that 50% of all species on the planet are found in these forests. The have the richest biodiversity. Animals like, gorillas, chimpanzees, and cobras live here.	D- THE TUNDRA

- 1- 2- 3- 4-

TASK 3 VIDEO: THE DESERT BIOME



While-watching activity – Read these statements and then watch the video about deserts and answer “T” for true and “F” for false.

1. Deserts are lifeless places in the World
2. The climate of a desert is always very hot.
3. The Gobi desert gets snow because of the wind
4. The temperatures in winter may fall to minus 40 degrees
5. The biggest problem in the Gobi desert is the lack of water
6. Bactrian camels have two humps
7. Camels in the Gobi desert can eat as much snow as they want to.
8. The Gobi is a desert because of the Himalayas.
9. The Sahara desert is smaller than the United States.
10. In this video we could see a big sand storm.
11. We understand from the video that dromedaries live in the Sahara desert.
12. Wind and sand can be so strong that they give shape to all deserts

READ ABOUT CAMELS. DID YOU KNOW THAT ...?

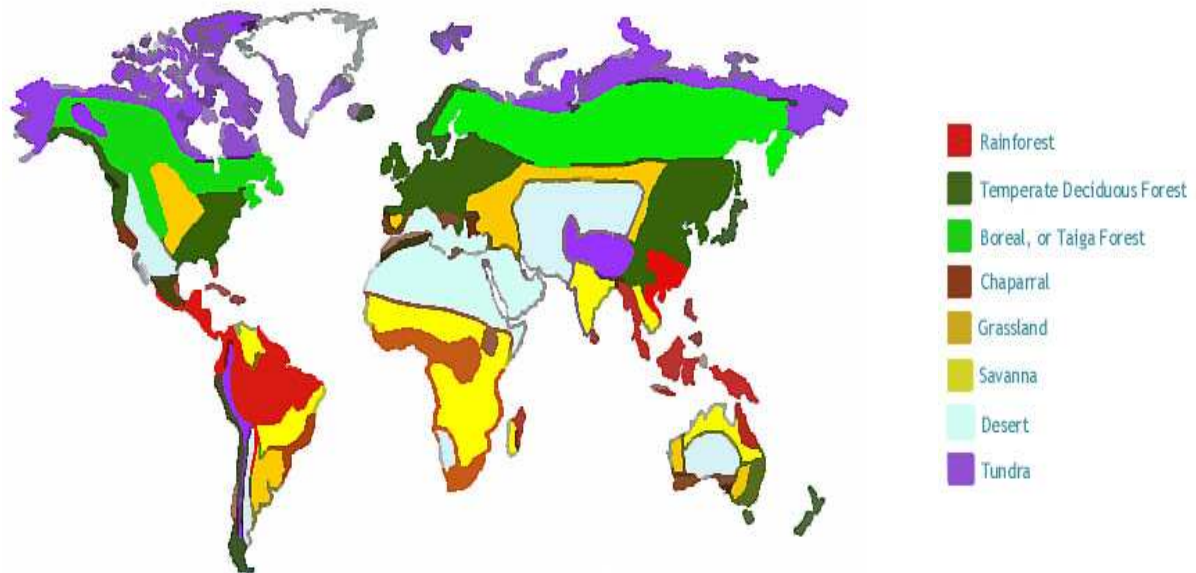
	<p>Bactrian Camels</p> <p>Bactrian camels are well suited for cold climates with rugged terrain. With their shorter legs and stout bodies they can walk over slippery surfaces that dromedary camels can't handle.</p>
	<p>F2 Hybrid Camels</p> <p>F2 Hybrid Bactrian camel, 3/4-Bactrian 1/4-Dromedary. Like the Bactrian camel they can walk over ice, mud, snow, and slippery surfaces. A good all around camel that can handle steep rocky mountain trails.</p>
	<p>F1 Hybrid camels</p> <p>Hybrid camels are half-Dromedary and half-Bactrian cross. F1 hybrids are the largest camels and make for good draft animals; They have one large hump on their backs.</p>
	<p>Snow-white Dromedaries</p> <p>They are faster and can travel more miles in a day than the Bactrian camel. Good in deserts, flat land or rolling hills, not good on slippery surfaces.</p>
	<p>Black Camels</p> <p>Black camels are rarer than white camels. These beautiful black dromedaries are bred for show and their beauty. Some places consider them to be adverse and bad luck</p>

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TASK 4- WRITING - ANALIZING A MAP

In pairs, look at the following world map and try to analyze it. Use the questions to help you write the analysis in a paragraph of about 150 words.

- 1- Where can you find tropical forests in the north hemisphere or in the south?
- 2- In what countries do we find boreal forests?
- 3- What do we get more of: deserts or rainforests?
- 4- The biggest green areas in the world are in ...
- 5- Which one is the main climate in Europe?
- 6- Where else, apart from the Mediterranean, can we find Mediterranean woodlands and scrub, also called "chaparral"?



TASK 5- TASK MENU



Students divided into 6 groups. They will work in the computer room to search for information. Each group will get a card with a web address and five questions to answer. At this webpage they will find plenty of information about the different biomes. Students have to read and try to answer the following questions. They must keep a record of the information they find about: location, temperatures, trees/plants, animals, and special facts of the biome you are working on.

<p>http://www.mbgnet.net/sets/rforest/index.htm GROUP 1: About the RAINFORESTS</p> <ol style="list-style-type: none"> 1- How many kinds of rainforests are there? 2- How old can the trees be in the rainforests? 3- Where are the rainforests located? 4- Name five different plants and draw them on your notebook. 5- What do gorillas eat? 	<p>http://www.mbgnet.net/sets/tundra/index.htm GROUP 2: About the TUNDRA</p> <ol style="list-style-type: none"> 1- Name one animal living in the tundra and describe it? 2- What's the lowest temperature you can have at the tundra? 3- Where is the tundra located? 4- Name five different plants and draw them on your notebook. 5- Do we get much vegetation there?
<p>http://www.mbgnet.net/sets/taiga/index.htm GROUP 3: About the TAIGA</p> <ol style="list-style-type: none"> 1- What is the average temperature at the taiga? 2- Why don't we get big trees at the taiga? 3- Where is the taiga located? 4- Name the biggest animals living there. 5- What kind of vegetation can we see at the taiga? 	<p>http://www.mbgnet.net/sets/desert/index.htm GROUP 4: About the DESERT</p> <ol style="list-style-type: none"> 1- What is the average temperature at the desert? 2- How many types of deserts are there? 3- Where are deserts located? 4- Where do dingoes live? 5- What kind of vegetation can we see at the desert?
<p>http://www.mbgnet.net/sets/temp/index.htm GROUP 5: About the TEMPERATE/DECIDUOUS</p> <ol style="list-style-type: none"> 1- How many seasons has the temperate got? 2- What causes the four seasons? 3- Where are temperate forests located? 4- Can you give the description of the Wild Boar living in the temperate forest? 5- Draw and colour three different leaves in the temperate forest 	<p>http://www.mbgnet.net/sets/grasslnd/index.htm GROUP 6: About the GRASSLANDS</p> <ol style="list-style-type: none"> 1- Name the three types of grasslands or prairies? 2- Do we get big trees in grasslands? 3- Where are grasslands located? 4- What are some of the most beautiful flowers in the prairies? 5- What are grasslands called in Europe?

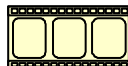
- Each group creates a poster.
- First you organize your ideas.
- Then find pictures to glue on your poster.

TASK 6 – FINAL TASK

Each team will tell the rest of the class about the biome they have worked on and display all posters on the classroom wall.

TASKS _____ **Teacher's Handouts**

TASK 1: DECIDUOUS FOREST VIDEO



Before-watching activities – Revise the following vocabulary and check the words you do not know in your dictionary. Then try to classify them into these two categories.

Deer	carnivores	Rodents	Beech	Birds	seed	Herbivores,
Birch	Opossums	skunks	insects	Magnolia	Oak	chipmunk
Maple	basswood	Fox	owls	Hickory	Bears	squirrel
PLANTS				ANIMALS		
Beech, seed, birch, magnolia, oak, maple, basswood, hickory				Deer, carnivores, rodents, bears, herbivores, opossums, skunks, insects, chipmunk, squirrel, fox, owls, cougars, birds		

While-watching activity – You are going to watch a short video describing the deciduous forest. Pay attention to the grid and try to give the correct order to the items described in this video.

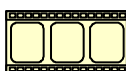
PLANTS / FLORA	5
TEMPERATURES / CLIMATE	3
LOCATION	1
PRECIPITATIONS	2
ANIMALS /FAUNA	4
ADAPTATION OF PLANTS AND ANIMALS	6

TASK 2: READING - The World's Biomes

IDENTIFY THE LAND BIOME AND ITS DESCRIPTION

- 1- C 2- D 3- B 4- A

TASK 3 VIDEO: THE DESERT BIOME



TRUE FALSE TASK

1. Deserts are lifeless places in the World (F)
2. The climate of a desert is always very hot. (F)
3. The Gobi desert gets snow because of the wind (T)
4. The temperatures in winter may fall to minus 40 degrees (T)
5. The biggest problem in the Gobi desert is the lack of water (T)
6. Bactrian camels have two humps (T)
7. Camels in the Gobi desert can eat as much snow as they want to. (F)
8. The Gobi is a desert because of the Himalayas. (T)
9. The Sahara desert is smaller than the United States. (F)
10. In this video we could see a big sand storm. (T)
11. We understand from the video that dromedaries live in the Sahara desert. (T)
12. Wind and sand can be so strong that they give shape to all deserts (T)

TASK 4- ANALIZING A MAP

In pairs, look at the following world map and try to analyze it. Use the questions to help you write the analysis.

- 1- Where can you find tropical forests in the north hemisphere or in the south? In the south
- 2- In what countries do we find boreal forests? In Canada, North parts of Russia, North of China
- 3- What do we get more of: deserts or rainforests? Deserts
- 4- The biggest green areas in the world are in ... the tropics.
- 5- Which one is the main climate in Europe? The temperate deciduous forest.
- 6- Where else, apart from the Mediterranean, can we find Mediterranean woodlands and scrub, also called "chaparral"? In some parts of Australia.

TASK 5- TASK MENU

GROUP 1: About the RAINFORESTS

- 1- How many kinds of rainforests are there? Two types of Rainforest -- the **temperate** and the **tropical**
- 2- How old can the trees be in the rainforests? Between 50 to 100 years in the tropical and from 500 to 100 years in the temperate
- 3- Where are the rainforests located? Between the Tropic of Cancer and the Tropic of Capricorn
- 4- Name five different plants and draw them on your notebook. For example mangroves, bamboo, fishbone cactus, Peacock plant, coconuts
- 5- What do gorillas eat? Plants (leaves, buds, stalks, berries, bark, ferns)

GROUP 2: About the TUNDRA

- 1- Name one animal living in the tundra and describe it? The caribou is a big mammal, it has antlers. It is a kind of deer. It eats lichen. They can be black, brown, grey or almost white. They gather in herds though adult males are often solitary.
- 2- What's the lowest temperature you can have at the tundra? -51 degrees Celsius
- 3- Where is the tundra located? Around the north pole
- 4- Name five different plants and draw them on your notebook. Lichen, dark red leaves, cushion plants, seeds and cotton grass
- 5- Do we get much vegetation there? Not much, and they are all low-growing plants

GROUP 3: About the TAIGA

- 1- What is the average temperature at the taiga? Below freezing for six months of the year.
- 2- Why don't we get big trees at the taiga? Because of low temperatures.
- 3- Where is the taiga located? between 50 degrees latitude north and the Arctic circle.
- 4- Name the biggest animals living there. Lynx, Moose, Wolverine
- 5- What kind of vegetation can we see at the taiga?

GROUP 4: About the DESERT

- 1- What is the temperature at the desert? Very dry and hot during the day and cool during the night
- 2- How many types of deserts are there? There are two: hot and cold deserts
- 3- Where are deserts located? In bands along 30 degrees latitude north and 30 degrees latitude south
- 4- Where do dingoes live? In the sandy deserts of Australia
- 5- What kind of vegetation can we see at the desert? Choose five and draw them. Plants that have the ability to collect and store water

GROUP 5: About the TEMPERATE/DECIDUOUS

- 1- How many seasons have the temperate forests got? It has four seasons
- 2- What causes the four seasons? Because of the tilt of the Earth's axis
- 3- Where are temperate forests located? In the eastern half of the United States, Canada, Europe, parts of Russia, China, and Japan
- 4- Can you give the description of the Wild Boar living in the temperate forest? It is a furry mammal that eats roots and tubers; it is similar to a pig with a longer snout. The male has prominent tusks
- 5- Draw and colour three different leaves in the temperate forest.

GROUP 6: About the GRASSLANDS

- 1- Name the three types of grasslands or prairies? Tall grass prairie, mixed grass prairie and short grass prairie
- 2- Do we get big trees in grasslands? We do get trees but they are no big at all
- 3- Where are grasslands located? In the U.S. Midwest, in South America, in Europe and in Africa.
- 4- Which one is of the most beautiful flowers in the prairies? The prairie blazingstar. It has magenta coloured flowers arranged along a spike at the top of a long stalk up to 5 feet high..
- 5- What are grasslands called in Europe? They are called "steppes"

 **INTERNET SOURCES**

<http://www.mbgnet.net/index.html>

<http://www.thewildclassroom.com/biomes/index.html>

http://www.worldbiomes.com/biomes_map.htm

<http://www.camelphotos.com/DifferentTypesP1.html>

<http://www.youtube.com>