



THE CLIMATE OF PLANET EARTH

Subject/s: Geography

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(Project: Indicazioni Nazionali IC Monte San Pietro 2014)

Sub-topic

Global climate change: causes and effects.

Content objectives

- Knowing the climatic zones of the planet;
- Identifying biomes:
 - biomes of the hot zone and the problem of desertification;
 - biomes of the temperate zone, the deforestation and hydrogeological problem
 - biomes of the polar zone and the glaciers melting.
- recognizing causes and effects of human activities on the environment.

Linguistic objectives

- Improving motivation and confidence in the use of English
- Implementing comprehension
- Answering to questions
- Acquiring specific language of the topic (CALP)
- Being able to produce a simple oral exposure of the content.
- Listing climate zones and their own biomes
- Listing environment problems connected to the climate zone
- Explaining what the greenhouse effect and the ozone layer are

Language (functions and lexis)

Structures/chunks of language:

- The climate zones of the planet Earth are... (**North of, south of ... there is ...**)
- In the temperate zone **we can find...** (what biomes)
- The Maquis biome **is featured by ...** (animals, plants) and **temperatures move between ...** and ... Celsius degrees
- In the tropical zone **we can observe ...** (desertification), that **is caused by ...** (drought, global warming)
- "Greenhouse effect" **is an effect of ...** (Co2 in the atmosphere)

	<p>Lexis:</p> <ul style="list-style-type: none"> • climate words: temperature, humidity, rains, drought, heat waves ... • biomes: tundra, boreal forest, temperate forest, prairie, maquis, hot and cold desert, rainforest, savanna. • some animals and trees names • global warming, greenhouse effect, carbon dioxide, gases, ozone layer, sea level rise, frequent storms, heat waves, drought, desertification, deforestation, hydrogeological instability.
Pre-knowledge	Features and elements of climate; difference between weather and climate; meaning of biome (in Italian).

Stages	Steps	Materials
<p>PRE-TASK</p> <p><i>Tuning in</i> <i>Activating prior-knowledge</i></p>	<p>- In pairs students have to sort out some sentences about climate, weather, biomes in true/false/I don't know; then they compare their predictions with another pair.</p> <p>- In groups of three-four, students have to match some pictures of biomes with the right zone of the Planet Earth, sticking the pictures on a poster with a planisphere. Finally students will sketch on it the three climate zones.</p>	<p>- Annex 1</p> <p>- Annex 2 - Annex 3 - patafix - coloured pencils (red, green and blue)</p>
<p>TASK</p> <p>1. Finding out Discovery learning</p>	<p>- In pairs students discuss and make hypothesis about features of the Polar Ice Biome by using a discussion grid (see annex 4); then they scan a text about the biome (the same for all the pairs) in order to search information needed to answer the questions in the discussion grid</p>	<p>- Annex 4 - text about a biome: http://polaricebiome.pbworks.com/w/page/17492418/FrontPage</p>

<p>2. Sorting out Organising information</p>	<p>and compare them with their predictions. (they have to identify, highlight data and copy them down in the grid)</p> <p>-In pairs, students search for information in internet to complete a form about a given biome. For example http://en.wikipedia.org/wiki/Maquis_s_hrubland or http://en.wikipedia.org/wiki/Tundra. Different biomes will be assigned to the pairs. Forms will have to be enriched by few pictures (landscape).</p> <p>- Posters of every biome will be hung in the classroom. Every member of a group of four has to complete a form about two given biomes; then all the students who have the same two biomes read and share information.</p> <p>- Running dictation: the same groups of four students of the previous activity. Students, in turn, dictate to the mates the features of their missing biomes and glue the grid on the exercise book.</p> <p>- The teacher shows the students the internet site Global Climate Change - Nasa; discussion following the activities of http://climate.nasa.gov/assets/downloads/education/TipsNTricksTipsheet_11-20-10.pdf</p>	<p>- Annex 5</p> <p>Pair of hanging posters in this way:</p> <ul style="list-style-type: none"> - Tundra, boreal forest; - temperate forest, prairie; - maquis, hot and cold desert; - rainforest, savanna. <p>(see Biomes annex)</p> <p>- Annex 6</p> <p>http://climate.nasa.gov/interactives/climate_time_machine</p>
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	<p>- In pairs, students visit the internet site Global Climate Change - Nasa then they make a map using given key words about climate changing.</p>	<p>Annex 7. Students can use Cmap http://cmap.ihmc.us/</p>
<p>POST TASK</p> <p>Language reflection/awareness Self-assessment Assessment</p>	<p>- In groups of three, students organize a Prezi presentation about one or two biomes and the climate changing effects on them. Biomes have to be chosen by similarity criteria. For example: polar + tundra biomes; forests (boreal, temperate, tropical); prairie + savannah; cold and hot desert; maquis ... Every group present his Prezi to the classroom.</p>	<p>Prezi - Presentation Software</p> <p>Students expose their presentations using the language functions provided by the teacher. Annex 8.</p>

