

## Learning Unit

### ***Title "Landscape , Environment and European climate"***

Type of school/ Class

Secondary school – I class

Subjects involved

Geography

Duration of Unit/ Number of lessons

10 Lessons ( 1 hour each)

#### **TEACHING AIMS**

- *to present the main elements of Landscape and Environment and climate with their main characteristics*
- *to present the relationship between human behaviour and environment*
- *to make students aware that climate on Earth can change both for natural and for human causes and resources are not endless and must be used with wisdom*
- *to activate learners' experience and prior knowledge about the concept of a sustainable development*
- *to help learners to increase their English vocabulary and use language to make simple descriptions of Landscape, Environment and climate*
- *to develop a more active and cooperative learning in class*

#### **Learning outcomes**

- *what learners will know and be able to do by the end of the unit*

know	be able to	be aware of
<ul style="list-style-type: none"> <li>• <i>the concepts of landscape and environment</i></li> <li>• <i>the processes that change / shape the earth</i></li> <li>• <i>the meaning of sustainable development</i></li> <li>• <i>the purpose and usefulness of recycling tools and saving energy</i></li> <li>• <i>the concept of climate</i></li> <li>• <i>the elements and factors of climate</i></li> <li>• <i>the Gulf Stream</i></li> <li>• <i>The different climates in Europe</i></li> <li>• <i>The Greenhouse effect</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>read a map;</i></li> <li>• <i>use pictures and images to gain informations about a region or a landscape;</i></li> <li>• <i>use , compare and explain data with tables and graphics;</i></li> <li>• <i>to find information about environment on the web ; learn new words;</i></li> <li>• <i>speak with a little more confidence about the topics;</i></li> <li>• <i>make questions and answer about the content;</i></li> <li>• <i>use specific language and the basic tools of geography;</i></li> <li>• <i>explain the meaning of specific words;</i></li> <li>• <i>express a simple personal opinion or ideas</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>relationship between human behaviour and environment ;</i></li> <li>• <i>the importance of a sustainable development ;</i></li> <li>• <i>the importance of being careful in using resources, in saving energy, in limiting pollution and release in the atmosphere of greenhouse gases</i></li> </ul>

#### **Content**

*An overview on the concepts of environment , landscape and climate, learners will gain knowledge about these topics and will be able to learn new words, to make questions about the content, to discuss and explain the meaning of the key elements of the content. Learners will understand with more awareness of how men can modify the environment and how this can*

*cause some global issues like the climate change.*

### Communication (vocabulary; structures; functions)

*Collaborative tasks, work in groups and pairs , individual work and whole class activities*

The language of instructions , turn taking, expressing opinions ;

understanding instructions,

asking and answering questions, defining word, expressing one's opinion ( I think/for me/ I consider/ in my opinion/maybe), comparing and describing ;

specific vocabulary:

( environment and landscape , climate , Gulf Stream/ North Atlantic Drift ecc.)

New or Revised Vocabulary used to read and understand a map : North/south/east/west ;  
latitude/longitude/degrees; data from a *Legend*;

Prepositions of place to describe a map or locate something: to the north/

- to describe a photo in a simple way (there is/are-I can see/I notice)

- to make suppositions (I think...)

- to ask detailed questions (whquestions)

### Cognition

***Lots*** (understanding, remembering, matching and reviewing learning- summarizing information, information transfer tasks) remembering- recognising names of geographical elements ; identifying names on maps and charts ; defining and explaining geographical and scientific concepts

***Hots*** (analyzing content, categorizing, identifying, selecting)

(engagement in higher-order thinking and understanding, problem solving, accepting challenges and reflecting on them) comparing different geographic situations and contexts ; drawing maps, tables and charts ; making simple personal research in newspapers, books or internet ; expressing simple personal ideas and opinions

### Culture

- 'self' and 'other' awareness, raising awareness of the climate change and fostering interest towards protection of the environment and sustainability.
- Progression towards pluricultural understanding
- develop class cooperation for learning

### **Resources**

Computer, projector, whiteboard, worksheets, videos, internet links

A glossary

Vocabulary cards.

*Geo Natura vol.1 from page 38 to 59*

<https://archive.epa.gov/climatechange/kids/> with glossary

<https://youtu.be/ScX29WBJ3w> ( video from youtube on greenhouse effects)

## **Lesson plans**

### **TEACHER'S NOTES (teaching/ learning activities)**

#### ***Lesson 1 - Landscape and Environment***

- *Warm up* - Brainstorming at the board the CLIL concept ( what the learners know or think to know about) and writing a few statements about CLIL and say if they are true or false for them . Class language : T writes key phrases that the SS have to use in classroom and they take note . T then introduces briefly the subject.

"CLIL is for those who speak good English", "I feel more confident when I read English texts than when I have to speak English", "I like working in groups"

- *Previous knowledge* - T writes at the board two statements : one says that they live in an environment and the other says that they can see a landscape through the classroom's windows. Using red and green cards the Ss indicate if the definition answers are true ( green) or false ( red).
- *Tasks : 1. What environment and landscape are. The T writes the the definitions of environment and landscape and asks the Ss to do a matching exercise working in pairs.*
- *Ending the lesson: The T shows at the board several pictures of different landscapes . The Ss working in pairs must match the descriptions given by the T on the board .*
- *Glossary: Landscape, Environment, natural and anthropized landscape and environment, visible and invisible features , urban environment.*
- *Assessment: Ss revise the key words of the lesson .*

#### ***Lesson 2 -How landscape and environment can change part 1***

- *Warm up* - T revises the key vocabulary of the first lesson, then shows at the board some pictures of environments and asks Ss if they can tell if those environments have changed through times. Using red and green cards the Ss working in pairs indicate if it is true ( green) or false ( red).
- *Previous knowledge* - T shows at the board pictures of Bryce Canyon and of a pebbles shore. Then asks the Ss if they know what element could have worked to change those environments brainstorming the answers at the near blackboard. Then shows at the board the natural element and processes that can shape landscape and environment.
- *Tasks : 1. Definitions of endogenic , exogenic processes and weathering . The T , showing the list of natural processes written before , asks the Ss if they can tell which ones work within the earth surface and which outside the earth . The Ss working in pairs must group them properly in a matching exercise .*
- *Ending the lesson: T writes the key words of the lesson on the board and SS take note of the new words*
- *Glossary: endogenic and exogenic processes , volcanic eruptions, folding , faulting , weathering , erosion, rain, wind , snow ,.*
- *Assessment: Ss revise the key words of the lesson .*

### ***Lesson 3 -How landscape and environment can change part 2***

- *Warm up* - T revises the key vocabulary of the previous lesson, then shows at the Ss the results of the matching exercise they did about the exogenic and endogenic forces.
- *Previous knowledge* - T writes a list of key words about the exogenic and endogenic processes that Ss copy on their workbook, and then shows a youtube video that explains the physical processes of weathering. <https://youtu.be/2rtxuHOnaTE> ( Weathering)
- *Task : 1 . After the video the T gives the Ss a table that they must complete working in pairs with the three types of processes showed in the video.*
- *Task. 2: T shows a video about the endogenic processes [https://youtu.be/SXXgGW\\_2BLI](https://youtu.be/SXXgGW_2BLI) ( endogenic processes) then asks the Ss to identify working in pairs the right process from a given definition with a gap filling exercise.*
- *Ending the lesson: T revise the new concepts of the lesson a the board .*
- *Glossary:ground, beneath, surface , broken , twisted , shaken, layers, volcanic eruptions, folding , faulting , main processes, tectonic plates, earthquakes , volcanism , weathering precipitation, cracks, freeze , expand wind gusts, particle, strike, source, drying out, moisture.*
- *Assessment: Ss revise the key words of the lesson .*

### ***Lesson 4 -Sustainable development***

- *Warm up* - T asks Ss if it's true that man change the environment for his needs or adapts himself to the environment . Ss using red and green cards indicate which statement is true ( green) or false ( red).
- *Previous knowledge* - T shows a zoomable video with several satellite images that shows how different areas of the earth have changed through time ( Amazon forest , Las Vegas etc. )

<https://earthengine.google.com/timelapse/#v=36.13527,-115.03715,9.73,latLng&t=0.51>

then asks the Ss to write a short list of behaviours or actions that men do that are dangerous for the environment. The Ss working in pairs write the list and the compare it with the others.

- *Task : 1. T shows at the board a map of the UN sustainable development 17 goals ( <https://goo.gl/images/N8D15x>) and asks Ss to select the ones related to environment . The Ss working in little groups make the selection and then the groups compare their choices ( T support the Ss to understand the meaning of each goals) .*

*After the explanation of the concept of sustainable delopment , the T shows a video about this concept :*

1 ) <https://youtu.be/7V8oFI4GYMY>

- *Ending the lesson : the Great Pacific Garbage Patch : <https://youtu.be/1qT-r0XB6NI> .*

*This video is short and with few sentences and questions written on the images sequences .  
( It is also connected with a page of the chapter on their book) .*

*The T shows on the board some sentences that Ss can copy on their workbooks and complete at home ( if they want they can work in pairs as well ):*

*This video makes me understand that man must.....*

*I am so shocked by the content of this video because.....*

*I don't like that man act like that because .....*

*The idea of a sustainable development is important because ....*

- *Ending the lesson: T writes the key words of the lesson on the board and SS take note of the new words*
- *Glossary: sustainable development, garbage patch, litter , plastic bag, growth, resources, needs, future generations , model .*
- *Assessment: Ss revise the definition of sustainable development and of the other key words. .*

**Sustainable development** is the organizing principle for meeting human development goals while at the same time sustaining the ability of natural systems to provide the natural resources and ecosystem services upon which the economy and society depend. The desired result is a state of society where living conditions and resource use continue to meet human needs without undermining the integrity and stability of the natural system. Sustainable development can be classified as development that meets the needs of the present without compromising the ability of future generations.

## **Lesson 5 - The climate**

- *Warm up - Checking the homework and revise vocabulary .*
- *Previous knowledge - T shows at the board some pictures of different weather situations and then asks Ss if they the difference between weather and climate. T shows at the board a map of the world climate zones of Europe. Then asks Ss if they can tell where people find more hot or cold, more rain or draught. The Ss discuss in pairs and then complete a table with the hottest areas and the coldest ones.*
- *Tasks : 1. T shows a video <https://youtu.be/p9oOHFmg0cU> that explains the difference between weather and climate . After that the T shows a list of the climate elements and factors ( after the explanation of these two concepts) , and asks Ss to regroup them properly. Ss working in pairs regroup them and then they discuss and compare the results.*
- *Task : 2. T shows at the board a map of the Gulf Stream ( or North Atlantic Drift ) and explains what it is and its positive effect on the islands and lands in the north Atlantic. Then asks Ss if they, after reviewing the list , can tell why this mitigating effect is now diminishing. The Ss working in pairs discuss about that, reviewing the list of human actions of the previous lesson and then compare their ideas with the others.*
- *Ending the lesson: T writes the key words of the lesson on the board and SS take note of the new words.*
- *Glossary : Climate ( artic, subartic, continental, alpine, mediterranean, atlantic) , weather ,humidity, atmospheric pressure , cloudiness, aridity, hailstorm, , mitigating effect , extreme .*
- *Assessment: Ss give a summary in a written form of the definition of climate and the correct list of its elements and factors.*

### ***Lesson 6– The Italian Climates***

- *Warm up* - T shows at the board some pictures of different Italian landscapes ( Northern , Central and Southern Italy) and asks the Ss to describe their climate brainstorming any vocabulary that they can think of . Each group has 5 minutes to write a little list , then they use these lists to describe the climates and eventually add details and finally compare their list with the other groups.
- *Previous knowledge* - T asks if the Ss can tell why Italy presents such variety of climates. Then writes on the board some sentences that report a true or false reason for it . ( *Italy has a particular position between Europe and Africa , Italy presents a variety of mountains, etc.*)Using red and green cards the Ss indicate if the sentences are true ( green) or false ( red).
- *Tasks : 1. After the explanation about the real reasons why Italy presents different climates , T shows on the board a map of the Italian climate zones . Ss working in little groups analyze the map and try to link the proper climate to each zone using some vocabulary given by the T in a matching exercise.*
- *Tasks : 2. **Biodiversity** . After explaining the concept of biodiversity T asks the Ss if 1) they think the Italy has a huge biodiversity and 2) this concept could be related to the variety of climates . Ss working in pairs try to answer and then compare their answers with the others.*
- *Ending the lesson: T reports the new words and concepts in a map that the Ss copy on their workbook.*
- *Glossary : alpine region, Po Valley, Adriatic, Ligurian and Tyrrhenian slope, the Apennines, islands, biodiversity*
- *Assessment: Ss revise the key words of the lesson .*

### ***Lesson 7– The Climate Change part1***

- *Warm up* - T shows at the board some pictures of different glaciers taken in different times and asks the Ss to describe what they see brainstorming any vocabulary that they can think of .
- *Previous knowledge* - T asks if the Ss can tell why Greenland was called this way by the Vikings when they arrived on its coasts. Then explains that the European climate was milder then now 1000 years ago and that from the 16<sup>th</sup> century to the 19<sup>th</sup> one there was a little Ice Age in Europe. The T now asks the Ss if it's true that climate can change for natural causes. Using red and green cards the Ss indicate if the sentence is true ( green) or false ( red).
- *Tasks : 1. T asks the Ss why in the last century the global climate has been changing much faster than before . To help the Ss to reason about the answer T shows different pictures of human activities. Ss working in pairs try to answer and then compare their answers with the others.*
- *Ending the lesson: T reports the new words and concepts in a map that the Ss copy on their workbook.*
- *Glossary : glacier , ice age , milder , factor, fossil fuels, industries, vehicles, air conditioning, greenhouse gas.*
- *Assessment: Ss revise the key words of the lesson .*

## ***Lesson 8- The Climate Change part2***

- *Warm up* - T shows at the board some pictures that show some aspect of the climate change and asks Ss to describe what they see brainstorming any vocabulary that they can think of.
- *Previous knowledge* - T asks if the Ss have ever heard of the Greenhouse effect or if they know at least what a green house is. After that T shows at the board some statements about what the Greenhouse effect is and how it works and Ss using red and green cards indicate if the sentences are true ( green) or false ( red).
- *Tasks* : 1. T shows a video about Greenhouse Effect and Global Warming <https://youtu.be/dw9KO9JsGGk> then asks Ss to work in little groups and answer to some questions : Which are the green house gases? , Why are they useful? What is the Greenhouse effect? What is Global warming?
- *Ending the lesson*: T reports the new words and concepts in a map that the Ss copy on their workbook.
- *Glossary* : greenhouse gas, greenhouse effect, trap , warm , cool, inhabitable, methane, carbon dioxide, nitrous dioxide, furthermore, thicker layer, increasing worldwide, global warming.
- *Assessment*: Ss revise the key words of the lesson .

## ***Lesson 9- The Climate Change part3***

- *Warm up* - T shows at the board few names ( Harvey , Irma, Josè and Maria the hurricanes of 2017) and asks Ss to tell what they can about these names brainstorming any vocabulary that they can think of.
- *Previous knowledge* - T asks if the Ss have ever heard of where hurricanes usually happen and how. After that T shows at the board a map showing tropical cyclone and hurricanes paths. Then T asks Ss if they agree or not with a statement shared by several scientists about the climate changes as the cause of many extreme weather phenomena. Ss using red and green cards indicate if they agree ( green) or not ( red).
- *Tasks* : 1. T shows pictures of floods happened in Europe in the last years and a map showing the "Lucifer" heat wave that hit Europe last summer ( 40-45°)( 2017) . Then T gives Ss a paragraph taken from [http://www.climate-and-freshwater.info/climate\\_change/](http://www.climate-and-freshwater.info/climate_change/) that explains the effects of climate change on temperature in Europe. Working in pairs Ss read and understand with the help of the T , then analyze and complete a little questionnaire about that paragraph .
- *Ending the lesson*: T reports the new words and concepts in a map that the Ss copy on their workbook.
- *Glossary* : on record, since, ice sheet , glaciers, hurricanes, havoc, floods, average, warmer , colder , hotter, roughly, trends , path.
- *Assessment*: Ss revise the key words of the lesson .

## ***Lesson 10- Final lesson and test***

- *Warm up* - Brainstorming exercise to revise the vocabulary of the previous lesson.
- *Previous knowledge* - T shows a map with some of the behaviours and actions that can be done to reduce the green house gases. Then asks the Ss if they can think about other things that they can do as well every day.
- *Tasks : 1. T asks Ss to work in pairs and write a list of good actions that they can compare with the other couples.*
- *Ending the lesson* . Final test (fill-in exercise; use of a map), with evaluation
- *Assessment:* Conclusion of CLIL experience with personal considerations .