**Erasmus+ project 2018-2020  
2018-1-HR01-KA229-047516  
Stop Climate Change – Together Europe Achieves More**

**LESSON PLAN**

Weather and Climate: Do you know the difference?

**Teacher**: Nektaria Lekka, teacher of Physics at 1st Higher Secondary School (1st Gymnasium of Cholargos).  
**Time**: 45 minutes  
**Level**: pre-intermediate and above  
**Age:** 11-15  
**Topic:** In this activity, we look at what we call "weather" and "climate" and we learn to discern differences between them.  
**Objectives:**To see the differences between the climate and the weather of a region.

**Keywords:** climate, weather, Mediterranean, ocean, continental, desert climate, transition climate, temperate climate, mountain climate, polar climate, microclimate, rainy weather, cloudy, hail, snow, wind, sunny day.

**Activities:** reading, speaking, listening, gap filling, writing, discussing.

**Outcomes:** Students will be able to understand the differences that exist between the climate and the weather of a region.

**Materials needed/resources:** Notebook, pencil, blackboard, chalk, computer, presentation with photographs.  
**Student grouping**: whole class, individual  
**Literature:**  - Geology-Geography A, B Junior Higher School  
                      - internet

**Procedure**  
  
**1**                                                                                                                                              15 minutes

 Hello, my name is Nektaria. I come from Greece. I will be your teacher today.      
The title of our Erasmus+ project is “Stop Climate change- -Together Europe Achieves  
More", so we will learn to recognize the climate of a place and describe the weather of a day or a limited time period.

***What does the weather effect?***

*Let's start our lesson with an Aesop's fairytale.*

The north wind and the sun disagreed about who is the strongest.

-I am the strongest, the north wind said.

-No, I'm the strongest one, the sun replied.

-We will make a bet, said the North Wind.

Whoever manages to remove the coat and the hat from this man, will be the strongest.

-Okay, said the north wind and began to blow with power.

The man held his hat with his hand and held the coat firmly against his body.

The northern wind blew and blew again, but he could not pull off his hat and coat.

-Now is my turn, told the sun.

The sun spreads its rays over the man and begins to heat up. Now the man removes the hat first, to cool down.

Then, the sun sends a wave of heat, and the man takes off his coat too.

The sun smiled and said, ***"Now you know who is the most powerful."***

**The weather affects all our habits, our dressing, and our travels, even how we feel**.

Correspond the feelings written below to the following weather conditions:

(anxiety, restraint, joy, depress, discomfort)

a) It has a lot of heat …………………………

b) A strong storm breaks out ………………………….

c) Cloudy ………………………….

d) Snowing …………………………

e) Sunny day …………………………

**Several occupations are influenced by the weather**.

Imagine, for example, how the following occupations are affected and write in the empty line the appropriate sentence from the list below:

(a)Fishermen, where strong winds prevail in their area.

……………………………………………………………………………………………………………….

(b)Farmers, when heavy snowfall catches their animals on the slopes.

………………………………………………………………………………………………………………..

(c)Farmers, when hail falls in their crops.

………………………………………………………………………………………………………………

**Complete the voids above with the appropriate proposal:**

1. He has lost income because the crops are destroyed.

2. The animals cannot graze and have to be fed on ready food.

3. He is losing income because he cannot fish.

**Plants and animals are also affected by the weather.**

Imagine, for example, what is happening:

(d) to a wildflower lying on a slope when it has not rained for weeks

………………………………………………………………………………………………………………..

(e) to a bunch of grapes when it falls a lot of rain a few weeks before the full maturity in August

………………………………………………………………………………………………………………………

( f) to a bear when there is prolonged heat during the winter.

……………………………………………………………………………………………………………………

**Complete the voids above with the appropriate proposal:**

4. The bear will not fall into hibernation and there will be a risk of hunger.

5. The grape of bunch will be destroyed by the rain.

6. The wildflower will wither and dry.

**2** 15 minutes

 Question

***What is the weather?***

**When we talk about the weather we mean the temperature, the wind, the rain, the atmospheric pressure and the humidity that prevails in a place for a short time, for two or three days. The weather is changing from day to day and can be changed several times even on the same day.**

***What is climate?***

**The climate is the weather conditions (temperature, wind, rain and humidity) that are repeated in a certain region almost in the same way, every season, for many years (about 30 years).**

Climate influences a lot the life on the planet Earth. Climate regulates the kind of animals and plants living in one place, guides farmers to choose what seeds to be sown, arranges what kind of houses we will make, what kind of food we eat, what clothes we wear in each region.

**There are several kinds of climates on Earth.**

Some of the climate types are: the Mediterranean, Ocean, Continental, Desert, Transitional, Temperate, Mountain and Polar.

**According to the map given below, fill in the table of the countries with the appropriate climate type.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Switzerland | Denmark | Slovenia | Estonia | Malta |
|  |  |  |  |  |

*Now let's recognize the climate of the six member states participating in our Erasmus program.*

|  |  |
| --- | --- |
| Poland | 1) The climate is mainly the Mediterranean. However, due to the country's unique geography, there is a remarkable range of micro climates and local variants.  Western of the main mountain range, the climate is generally more humid and has some marine features. The eastern part of Mountains is generally drier and hotter in the summer.  The northern regions have a transitional climate between the mainland and the Mediterranean climate.  There are also mountainous areas with alpine climate. |
| Greece | 2) The climate is mostly oceanic with western winds.  The rains are abundant throughout the year (except winter), while temperatures are relatively mild in the winter and cool in the summer.  Snowfall occurs mainly from the beginning of December until the end of February and it rains during the rest of the year and especially during the summer.  Temperatures range from -2 to 5 degrees in the winter and from 11 to 22 degrees in the summer.  Temperature variations in both summer and winter are relatively small, because in winter a hot stream that comes every year from the Gulf of Mexico affects the temperature of the sea, so that the sea does not freeze. |
| Croatia | 3) Mild climate with significant variations among regions even among neighbor regions.  In the Alps, there are low temperatures and notable thermal rainfall.  The Po's plain has a continental climate without many rainfalls.  The Apennines area has a continental character that becomes more apparent in the interior.  In the island and the Ionian region, the climate is typically the Mediterranean, with mild winters and hot summers.  Rainfall is minimal and concentrated mainly in the winter. |
| Netherlands (Holland) | 4) The climate, which ranges between marine and continental, is relatively mild.  Average coast temperatures are -2° C in January and +16 ° C in July.  During the summer, 20 ° C is frequent during the day while 14 °C is frequent at night.  Some winters may be very cold. Temperatures which reach -20 °C occur almost every winter.  Extreme winter temperatures are -34 ° C in coastal areas and at -43 ° C in the east.  The climate of the country is continental with wet winters and wet summers. |
| Italy | 5) The climate is very similar to the Mediterranean.  It is characterized by warm summers, many sunny days and mild and rainy winters.  The warmer months are July and August when the air temperature is between 25 °C and 35°C.  It is very rarely rained during this time, and that is why it is considered to be the peak of the tourist season.  It is one of the sunniest coasts in the world |
| Lithuania | 6) The climate is mildly continental and humid.  To the East it becomes more continental. The average annual temperature is 8 ° C where the largest rainfall occurs in the summer. |

**3 15 minutes**

**PLAY AND LEARN**

**Which of the following phrases refer to weather and which to climate?**

The next heat wave is expected. Weather or Climate

The summer in Greece is warmer than in the summer in Sweden. Weather or Climate

Our day started sunny but suddenly caught a storm that made us soak! Weather or Climate

In Warsaw (capital of Poland) the winters are mild and the summers are cool

with abundant rainfall. Weather or Climate.

The temperature will fall in the next 24 hours. Weather or Climate

This season, every year there is snowfall. Weather or Climate

The Piraeus Port Authority does not allow ships to travel due to strong winds. Weather or Climate

If it rains in March and April this is good for agriculture. Weather or Climate

*Thank you for your attention and work!*