

WORKSHEET 2

the day / night and seasons temperature variation

The main purpose of this worksheet is to check the day / night and seasons temperature variation.

I) The first step is to identify the closest meteorological station on the map found on the website:

<https://rp5.ru/Weather in the world>

For your chosen location, we are going in the **Weather archive** and Download weather archive in the XLS (Excel) format for a particular data range. We recomand to select a short rage to not have very large file.

Task to carry out:

1. The students will identify the day with the larger variation of temperature between night and day
2. The students will plot the data using Excel software or can use graph paper.
3. The students will identify the time at which the temperature rich the maximum value.
4. The students should explain why the temperature has the masimum value at that particular time?

II) For the second goal, the students should obtain from the website:

<https://rp5.ru/Weather in the world> the season average temperatre of the closest meteorological station on the map. To do this, in the **Weather archive and Weather statistics** the student should select at the data range, the months corresponding to each season and then to select **Calculate**.

Example: if for a particular location we have selected **data range: 01.12.2015 - 29.02.2016** - we have winter. At the **Select within the date range:** we have **all days**. Selcting **calculate**, we obatain the mean value for all the parameters for that particular location.

The experimental data will be writen in the following table.

Season	Mean value of temperature [units]
winter	
sping	
summer	
autum	

Task to carry out:

1. The students will plot the data using Excel software or can use graph paper.

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2. They will search the average values for the locality on the web and compare them to the mean values found for the selected year and compare the results.

Additional materials

In order to explain the results obtained the teacher could use one of the following video related to the energy transfer:

video 1: www.youtube.com/watch?v=Y3kZVX6ZCsY (9.04 min)

video 2: www.youtube.com/watch?v=U3ee3rSg7xs (9.11 min)

video 3: www.youtube.com/watch?v=Atnjo7dD_bA (3.24 min)