WORKSHEET 1

temperature variation of coastal areas with those on the inland

Task no.1

The main purpose of this worksheet is to show that the land heats more fast and to higher temperature then water and is cooling more fast and to lower temperature then water.

In order to show this we choose two different meteorological station, one on coastal areas and another one deep on inland.

The maritim location is Eastsound (airport) (48° 42'486" N lat., 122° 54'66" W long.; 9 m) and the inland location is Hallock (airport) (48° 45'138" N lat., 96° 56'53" W long.; 251 m).

For both cities we are going in the **Weather archive** and we extract from the database the mean monthly temperatures for some particular year. For beginning we chose 2017. The obtained recorded values will be noted in the table below.

Month	Eastsound - mean monthly temperature [units - ^{o}C, ^{0}F,K]	Hallock - mean monthly temperature [units - ^{o}C, ^{0}F,K]
January		
February		
March		
April		
May		
June		
July		
August		
September		
October		
November		
December		

Task to carry out:

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

2. The students must discuss the plot obtained in terms of similarities and differences.

3. The students must answer to the question: Why do land and water heat and cool differently?

Task no.2

With the results obtained at the above activity the students should do the same analysis with the next two costal meteorologically station: Iquique (airport) (20° 32.12' S lat., 70° 10.88' W long.; 47 m) and Macae (airport) (22° 20.67' lat. s., 41° 45.92' long. o.; 4 m), by noted the values in the next table:

Month	Iquique (airport) - mean monthly temperature [units - $^{\circ}C$, $^{\circ}F$,K]	Macae (airport) - mean monthly temperature [units - $^{\circ}C$, $^{\circ}F$,K]
January		
February		
March		
April		
May		
June		
July		
August		
September		
October		
November		
December		

Task to carry out:

1. The students should identify the position of the two location

2. The students will plot the two sets of data using Excel software or can use graph paper.

3. The students must discuss the plot obtained in terms of similarities and differences.

4. The students must explain the differences in the temperature observed between the two locations.