



## SCIENCE 4 ALL

### Lesson Plan

<b>Class: 1 or 2</b>	<b>Grade: 13/14 years old</b>	<b>Time: 60 minutes</b>
<b>Teacher: Kinga Myśliwiec</b>		<b>Date: March</b>
<b>Country: Poland</b>	<b>Subject: Geography</b>	
<b>Topic Area: Meteo station and measuring weather elements – Kasprowy Wierch.</b>		
<p><b>Aims:</b> By the end of this lesson students will be able to:</p> <ul style="list-style-type: none"> <li>- know what are weather elements,</li> <li>- know what is the weather, symbols/units of measure,</li> <li>- explain the directions of the world,</li> <li>- can read the information from a map,</li> <li>- read the altitude height of the highest top and the lowest top in the nearest area,</li> <li>- use a compass, name the measuring device,</li> <li>- explain the zoning of plants life in the mountains,</li> <li>- calculate the height difference between the tops,</li> <li>- know vocabulary about the weather and air temperature.</li> </ul>		
<p><b>Aids<sup>1</sup>:</b> a thermometer, a map of the Tatra Mountains, a compass, a barometer, a stick with a ribbon, worksheets given by a teacher,</p>		
<b>Procedure:</b>		<b>Time</b>
Warm up/ review: A teacher explains students what is the weather/weather forecast/meteorology?		5 minutes
Going up to Kasprowy Wierch by the cable car.		10 minutes
Two students explain what are the names of the measuring device by showing the pictures prepared earlier.		5 minutes
Students are divided into 5 groups.		30 minutes

<sup>1</sup> Attach worksheets, Other material used, links to websites...

<p>Group 1 have to give the name of measuring device and units of measure to each weather elements (appendix 1).</p> <p>Group 2 and 3 have to complete appendix 2 – air temperature, wind direction, overcast, type/amount of precipitation, atmospheric deposit and weather phenomena, using symbols of measure.</p> <p>Group 4 have to define the directions of the world, find the highest/lowest top of the Tatra Mountains, calculate the altitude height of these tops (appendix 3).</p> <p>Group 5 draw, write Western and Eastern Tatras, mark the directions of the world, write the zoning of plants life in the mountains. They also explain how can we protect natural heritage of this region (appendix 4).</p> <p>Going down from Kasprowy Wierch by the cable car</p>	<p>10 minutes</p>
<p><b>Evaluation:</b> A teacher discusses solutions and evaluate their correctness.</p>	
<p><b>Summary:</b> This lesson improves pupils’ skills to use a different source of information, communicate with others in English and work in team.</p>	

**Appendix 1** A task set for students A

**Appendix 2** A task set for students B

**Appendix 3** A task set for students Group 4

**Appendix 4** A task set for students Group 5






















## A task set for students A

<b>Weather elements</b>	<b>The name of measuring device</b>	<b>Unit of measure</b>	<b>Other notes</b>
<b>Air temperature and soil</b>			
<b>Precipitation</b>			
<b>Air humidity</b>			
<b>Atmospheric pressure</b>			
<b>Wind direction and speed</b>			
<b>Insolation/overcast</b>			

A task set for students B

Time of observation	date	Monday 13.03.2017			Tuesday 14.03.2017			Wednesday 15.03.2017			Thursday 16.03.2017			Friday 17. 03.2017		
	time	10 <sup>00</sup>	13 <sup>00</sup>	19 <sup>00</sup>	10 <sup>00</sup>	13 <sup>00</sup>	19 <sup>00</sup>	10 <sup>00</sup>	13 <sup>00</sup>	19 <sup>00</sup>	10 <sup>00</sup>	13 <sup>00</sup>	19 <sup>00</sup>	10 <sup>00</sup>	13 <sup>00</sup>	19 <sup>00</sup>
Weather elements	Air temperature															
	wind direction															
	wind force															
	overcast															
	Type of precipitation															
	Amount of precipitation															
	Atmospheric deposit															
	Weather phenomena															

Weather elements		Symbols / unit of measure	
Temperature		°C	
Wind	direction	↓ or N	nothern
		↙ or NE	North-eastern
		← or E	eastern
		↘ or SE	south-eastern
		↑ or S	southern

		 or SW	south-western
		 or W	western
		 or NW	north-western
	force	<b>Beaufort scale (1–12) or m/s</b>	
Overcast			Cloudless (niebo bez chmur)
			Scattered Clouds (mniej niż połowa nieba zachmurzona)
			Partly (połowa nieba pokryta chmurami)
			Mostly cloudy (więcej niż połowa nieba zachmurzona)
			Overcast (niebo całkowicie zachmurzone)
			fog
Precipitation	Type		Drizzle (mżawka)
			rain
			snow
			Sleet (deszcz ze śniegiem)
			Hail (grad)
			Snow pellet (krupa śnieżna)
	Amount	<b>mm</b>	
Atmospheric deposit			Rime (szadź)
			Dew (rosa)
			Glazed Frost (goleledź)
			Hoarfrost (szron)
Weather phenomena			storm
			rainbow

**A task set for students Group 4 Names:**

1. Define the directions of the world using a compass.
2. Look at the map and find the highest and the lowest top of the **Tatra Mountains in Poland**.
3. What is the altitude height of the highest top and the lowest top in the nearest area?

Altitude of the highest top:

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Name: .....

Altitude of the lowest top:

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Name: .....

4. What is the height difference between these tops?

Calculation:

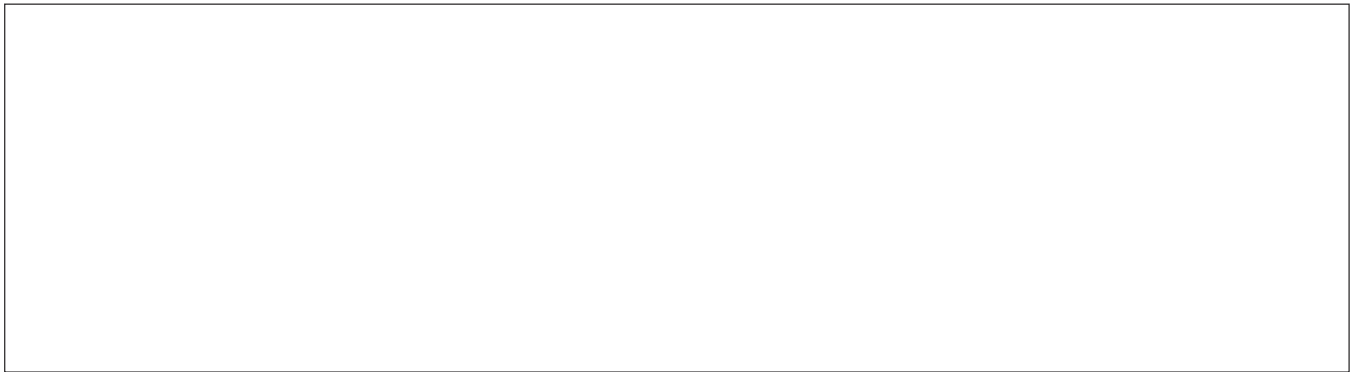
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Answer:

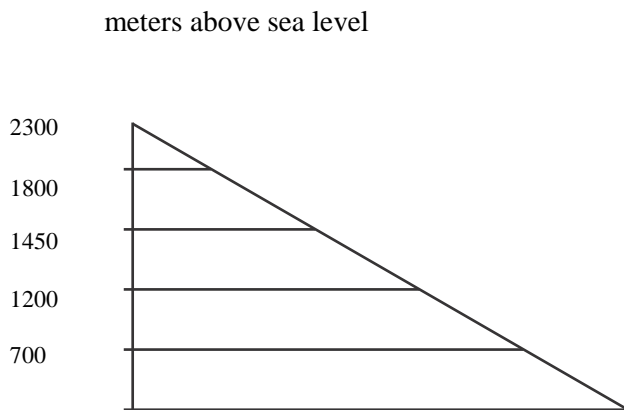
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**A task set for students Group 5 Names:**

1. Draw Tatra Mountains. Write Western and Eastern Tatras. Mark the directions of the world.



2. Write in a correct place zoning of plants life in the mountains.



Pastures, peaks, lower riegel, dwarf mountain pine, higher riegel

3. How can we protect natural heritage which are Tatras? Write your suggestions how to protect this region.

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