MICROCLIMATE INVESTIGATION:

WHERE WOULD BE THE MOST PRODUCTIVE SITES FOR RENEWABLE ENERGY IN THE SCHOOL GROUNDS?

Where is the sun the strongest..?

WHAT TO DO:
1. Collect your cup of water and place it in the **warmest spot you can find**.
2. Measure and record the temperature of the water.
3. After half an hour (or longer) return to the cup and measure the temperature again.

<table>
<thead>
<tr>
<th>Temperature before (°C)</th>
<th>Temperature after (°C)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</table>

Has the temperature changed? If so, by how much?

___________________________________________________________________________________

Why do you think the temperature has / has not changed?

___________________________________________________________________________________

Can you think of another place that might be even warmer?

___________________________________________________________________________________

How does the microclimate of the school grounds differ from place to place..?

Using the map, locate the three microclimate sites and using the table below record the different weather variables at each.

<table>
<thead>
<tr>
<th>Time of recording</th>
<th>Wind speed (km/hr)</th>
<th>Wind direction (N,S,E,W)</th>
<th>Temp. (°C)</th>
<th>Precip. (mm)</th>
<th>Site description (aspect, shelter, slope, ground surface)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site one</td>
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<tr>
<td>Site two</td>
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<tr>
<td>Site three</td>
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</table>
Which site would be best for (a) a wind turbine and (b) solar panels? Why?

(a) Wind turbine:________________________________________________________
________________________________________________________________________
________________________________________________________________________

(b) Solar panels:_______________________________________________________
________________________________________________________________________
________________________________________________________________________