

## THERMAL COMFORT

Thermal comfort describes how warm or cool we feel. Due to hard surfacing, cities and built-up areas can be 'urban heat islands', with higher temperatures than rural areas. Trees mitigate this effect due to shading and transpiration of water from the leaves. You will study the effect of Tiny Forest on thermal comfort by collecting weather station data and describing how you feel.

### EQUIPMENT PER GROUP:

- 1 x Weather station
- 1 x Tablet/phone/printed field sheet

### WHEN TO SURVEY

Any time during the day. If possible, the weather data to be taken at two different times of day (eg. AM & PM)

### INSTRUCTIONS

#### STEP 1:

- Record where you are taking your thermal comfort measurements. Find any suitable spot where you can collect your data. This can be in the middle, edge, outside the forest, or near grey infrastructure (like hard surfacing such as roads or buildings).
- Record the current weather conditions. Select the most appropriate options from the lists (rain, sun/cloud and wind) on your tablet, phone or field sheet.

#### STEP 2:

- Answer questions on how the temperature feels to you. There is no right or wrong answer, just select what feels most applicable to you. If you are in a group, please answer these questions individually.

#### STEP 3:

- Record weather station measurements. Check that the units on the weather station monitor matches those written here.
  - Record the temperature in degrees Celsius ( $^{\circ}\text{C}$ ). It is the third value on the weather station's display – see image.
  - Record the humidity in percent (%). It is the second value on the weather station's display.
  - Record the wind speed in metres per second (m/s). It is the top value on the weather station's display.



You can now repeat steps 1-3 for the other locations; middle, edge, outside and near grey infrastructure.

