Instruction Guide

Equipment Required

To collect the weather observations for cloud cover, wind direction and speed, weather conditions and air temperature the following equipment will be required:

- Compass
- Anemometer
- Thermometer
- Calculator

It is recommended that each person is responsible for collecting one observation and a nominated leader records and uploads all of these observations to the online spreadsheet (instructions below).

Site Selection

Choose a safe location away from roads or car parks within your school site which you have permission to use when you will be taking observations. Try to choose a site which is not close to buildings or metalled surfaces. For the most reliable and accurate readings an open grass surface is recommended. Select the site before taking observations and ensure all readings are taken at the same site.

Observation Card

Print out or copy this table to record your observations:

Variable	**Observation**			
Time (hh:mm)				
Cloud Cover (Oktas)				
Wind direction (Compass Scale)				
Wind speed (mph)	Reading 1:	Reading 2:	Reading 3:	Mean:
Current Weather Conditions (Code)				
Temperature (°C)				

Observation instructions are detailed on the next page.

Uploading Observations

To upload your observations follow one of the 5 links provided by email corresponding to the day of your observations and follow the on-screen instructions. The data for the whole week will also be available in spreadsheet format following the specified link.

Observation Instructions

Cloud Cover
This is measured using the Okta scale where the proportion of cloud covering the sky is observed and the suitable value from the scale is recorded:

Scale	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
Cloud Cover	No cloud visible	Sky 1/8 cloudy	Sky 1/4 cloudy	Sky 3/8 cloudy	Sky half cloudy	Sky 5/8 cloudy	Sky 3/4 cloudy	Sky 7/8 cloudy	Sky compl-etely cloudy	Dense fog or mist

Wind Direction (compass required)
Orient yourself such that the wind is blowing directly towards you. Then holding a compass level rotate the scale so that 0° aligns with the North arrow and record the direction you are facing in degrees. Convert this direction from degrees to the 16-point compass scale:

Bearing	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°
Compass Scale	N	NNE	NE	ENE	E	ESE	SE	SSE

Bearing	180°	202.5°	225°	247.5°	270°	292.5°	315°	337.5°
Compass Scale	S	SSW	SW	WSW	W	WNW	NW	NNW

Wind Speed (anemometer and calculator required)
Hold the anemometer at arm's length at approximately 1.5m above ground level. Take 3 readings separated by 30 seconds and calculate the mean wind speed. Convert this wind speed into mph using the conversion 1mile = 1.609km and record this final figure.

Current Weather Conditions
Observe and record the current weather conditions by selecting which of these descriptions is most suitable:

Code	**Weather Conditions**
1	Cloudless sky
2	Some clouds in sky, no precipitation
3	Some clouds in sky, precipitation
4	Sky covered by cloud, no precipitation
5	Sky covered by cloud, precipitation

Air Temperature (thermometer required)
Hold the thermometer by the top at arm's length at approximately 1.5m above the ground level. Ensure the thermometer is in the shade; use your shadow if there are no local shaded areas. Record the temperature after 1 minute.