

WEATHER

- STEVENSON SCREEN -

PROF. PIERO MAMMINO

Photograph A for Question 1



A **Stevenson screen** is a container in which weather instruments can be placed

HOW THEY ARE MADE

- Box constructed of wood
- Painted white to avoid direct heating by the sun
- Spaced sides for the air circulation
- Double roof against insulation
- More than 1 meter high to avoid instruments are affected by heat coming from the ground

WHAT THEY CONTAIN

- thermometers
- hygrometers
- barometers

- (ii) The students in Pretoria used a Stevenson Screen in their weather station. Photograph A (Insert) shows a Stevenson Screen. Describe three features of a Stevenson Screen and explain why each is important.

1

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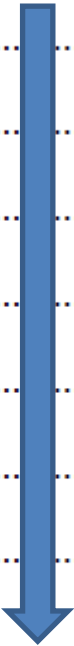
2

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3 (ii) Screen is painted white...so that it reflects heat or sunlight / reduces direct heating by the sun / does not absorb sunlight
Sides are made of slats / louvres / have spaces / gaps / not solid...so that air can circulate
Screen / box is made of wood...so that heat is not conducted into it
Roof is made of a double layer of wood...so that airspace provides insulation
Screen stands more than 1 m / raised on legs above the ground...so that instruments are not affected by heat from the ground

NOT: wind / keep rain out / box to protect instruments / holes in side / not affected by sun / above ground

3 + 3 marks [6]

(iii) Which **one** of the following measuring instruments would the **students put inside a Stevenson Screen?** Circle your answer. [1]

Anemometer

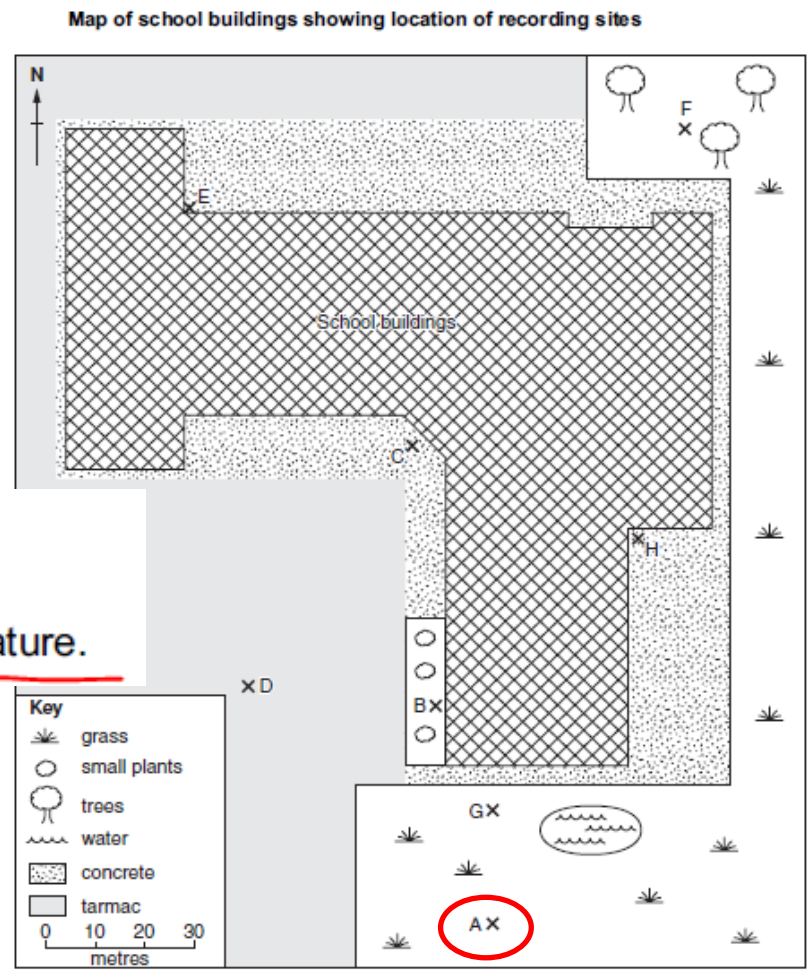
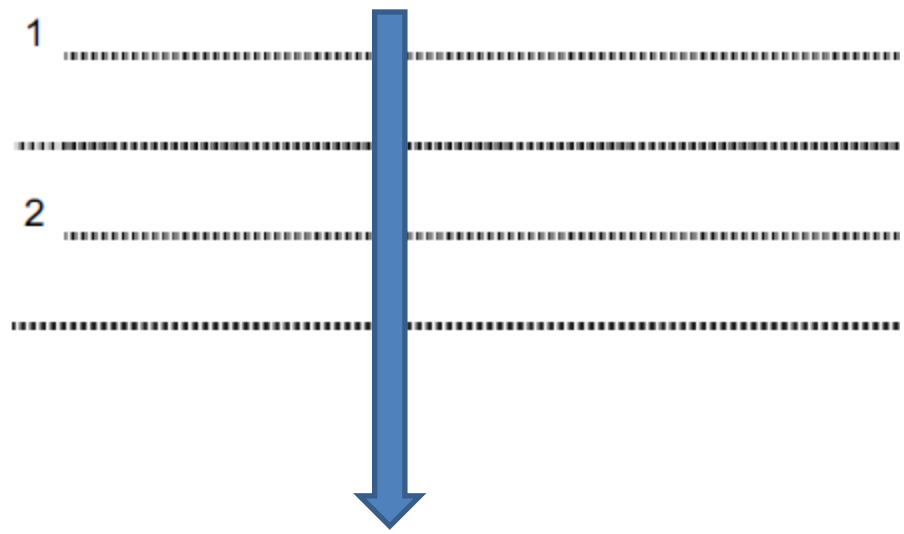
Rain gauge

Thermometer

Wind vane

(b) Study the map, Fig. 1 (Insert). This shows eight sites, labelled A to H, around the school buildings. These sites were used by the students for measuring temperature and relative humidity.

(i) The school's Stevenson screen is located at Site A. Suggest two reasons why this is a good location for a Stevenson screen.



(b) (i) Away from the influence of buildings;
no trees nearby to create shade;
on grass so this will not absorb heat/alter temperature.