Raffles Institution

2024 Year 6 Preliminary Examination

Level: Year 6 | **H2 GEOGRAPHY** 9173 Paper 2 | Time: 3 hours

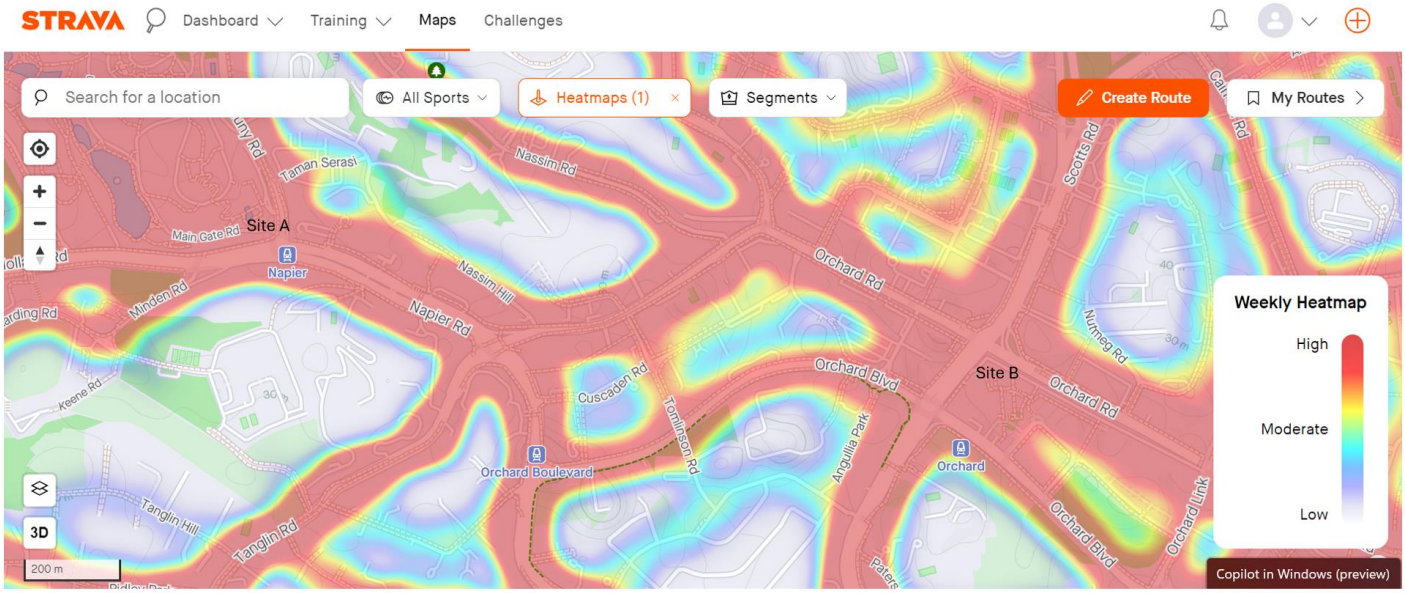
READ THESE INSTRUCTIONS FIRST:

This Insert contains all the Resources referred to in the question paper.

INSERT

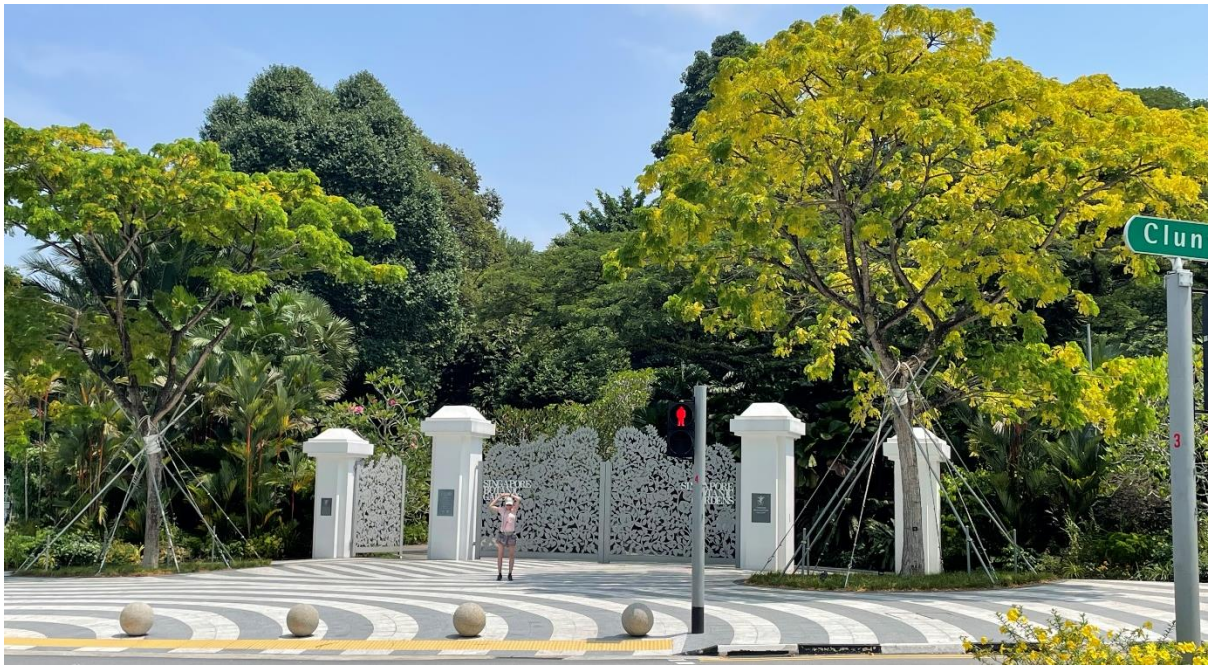
Resource 1 for Question 1

Heat map of Napier-Orchard area



Resource 2 for Question 2

Photograph of Site A



Photograph of Site B

Resource 3 for Question 1

Results of the survey

Site A				Site B			
Respondent	Willingness to Visit On a Hot Day			Respondent	Willingness to Visit On a Hot Day		
	Unwilling	Neutral	Willing		Unwilling	Neutral	Willing
1			✓	1			✓
2			✓	2		✓	
3			✓	3			✓
4			✓	4			✓
5			✓	5			✓
6			✓	6			✓
7			✓	7			✓
8			✓	8			✓
9			✓	9			✓
10			✓	10			✓
11			✓	11			✓
12	✓			12			✓
13			✓	13			✓
14			✓	14			✓
15			✓	15	✓		
16			✓	16			✓
17			✓	17			✓
18			✓	18			✓
19			✓	19			✓
20		✓		20			✓

Resource 4 for Question 1

Commentary published by Channel News Asia (CNA)

Commentary: A Hotter Singapore Will Change How We Work And Live

22 Apr 2024 06:00AM (Updated: 22 Apr 2024 02:15PM)

SINGAPORE: If you found the recent hot weather in Singapore unbearable, things are expected to get worse. There will be more days of extreme heat in the decades to come, according to the National Climate Change Study released earlier this year.

Liveability in urban Singapore will surely take a hit as temperatures rise, especially given the notorious urban heat island effect. Already, some schools have relaxed rules on uniforms, such as allowing students to wear their PE attire instead.

THE COST OF EXTREME HEAT

Aside from economic costs, there is a broad range of heat-related symptoms, from purely medical (such as cardiopulmonary) to psychological (such as fatigue and anxiety), and even social (such as increased irritability and aggressive behaviour).

A growing number of buildings in Singapore now include design features to moderate the urban heat island effect, such as building orientation roof-top gardens or use reflective paint. But the average person would still likely turn the air-conditioning on, contributing to further global warming in the long run. This suggests that we need solutions that reflect a deep understanding of human behaviour and psychology.

UNDERSTAND HEAT PERCEPTION AND BEHAVIOUR

Understanding how people perceive temperature in a subjective manner and how they behave to minimise heat stress in hot weather can provide city planners with new tools to regulate the heat.

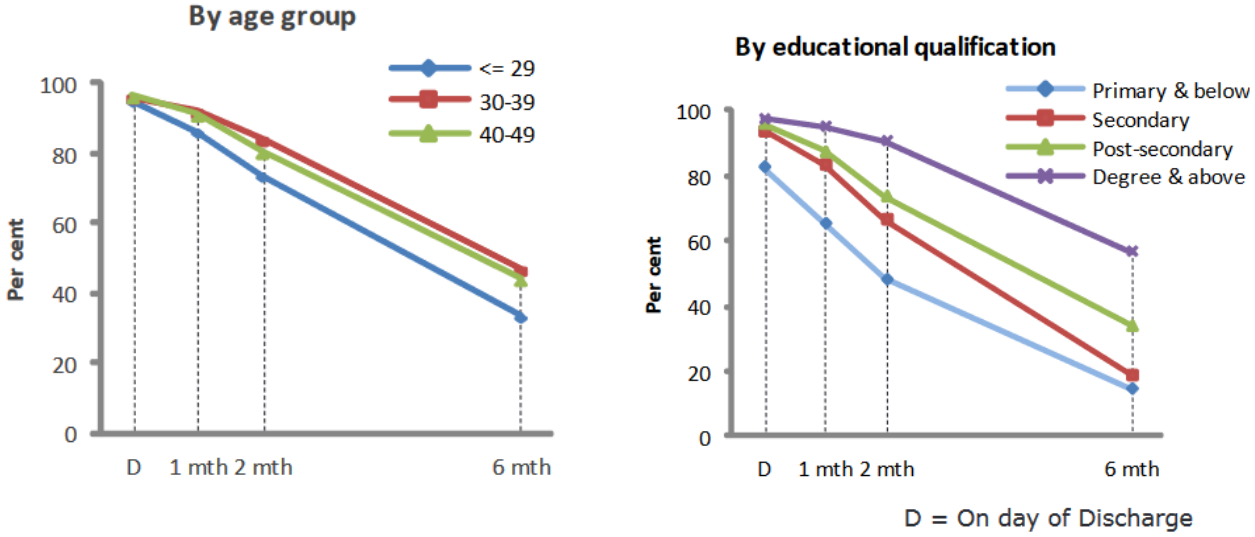
In a study conducted by Nanyang Technological University, researchers found that walking 100m in the shade was comparable to walking 86m under the sun. The same study also estimated that sheltered walkways around MRT stations under the Land Transport Authority's Walk2Ride initiative could make the stations feel 14 per cent closer. This could help determine how much farther people are willing to walk to avoid the sun and plan sheltered paths.

Other research tells us that factors unrelated to the weather can influence our perception of heat. Spaces that are interesting, beautiful, or natural can "feel" less warm or might be preferred. We might bear with the heat at outdoor hawker centres instead of indoor eateries for a more authentic local dining experience.

If we consider the full suite of factors that influence heat perception, we can regulate the comfort of our environments without adding stress to global warming.

Resource 5 for Question 2

Prevalence of any breastfeeding amongst new mothers in Singapore, 2013.



Resource 6 for Question 2

A nursing room in a shopping centre in Singapore

Resource 7 for Question 2

Data from a survey studying gender issues in the workplace in Singapore