



Ho Koon Nature Education cum Astronomical Centre
(Sponsored by Sik Sik Yuen)

Liberal Studies

Student Handbook

Topic: City Weather

Date : _____

Group : _____

Group Leader : _____

Group Member : _____

A. Objectives:

1. Carry out investigation in Tsuen Wan with reference to current issues to understand the relationship between weather and city planning.
2. Use simple instruments to collect weather data and analyze them.
3. Discuss how town planning can act in concert with weather and environment.
4. Understand the role of an individual on environmental protection.

B. Schedule:

Time	Activities
9:00 – 10:00	Introduction
10:00 – 11:00	Group discussion and presentation
11:15 – 12:00	Lunch
12:00 – 14:00	Field work
14:15 – 15:15	Data analysis
15:15 – 16:35	Presentation and Conclusion

C. Equipment list

	Items	Quantity	Checked	Returned
1.	Anemometer	x 1	<input type="checkbox"/>	<input type="checkbox"/>
2.	Electronic Thermo-Hygrometer	x 1	<input type="checkbox"/>	<input type="checkbox"/>
3.	Lux meter	x 1	<input type="checkbox"/>	<input type="checkbox"/>
4.	Compass	x 5	<input type="checkbox"/>	<input type="checkbox"/>
5.	Nylon Rope	x 1	<input type="checkbox"/>	<input type="checkbox"/>
6.	Clipboard	x 1	<input type="checkbox"/>	<input type="checkbox"/>

D. Focus of the study

Hong Kong is affected by urban heat island effect in recent years. The dense and high buildings in Hong Kong are culprit of the problem. Some green groups pointed out that Tsuen Wan is seriously hit by this effect. You can investigate in Tsuen Wan in groups (5 to 6 members in each group) after selecting study topic and devising an investigation plan. Report the results in class and write a report on this study.

Lieral Studies: City Weather

1. Background

Hong Kong is hit by urban heat island effect in recent years. It develops when cooling rates of dense-developed urban area are slower than rural ones. The effect is more significant in winter due to great temperature difference between urban and rural area. (Apple Daily, 12 May, 2008)

Wall-effect building problem will further affect Tsuen Wan and its 72 thousand residents because 22 buildings and two hotels under four construction projects will be built along the waterfront. In fact, there are already many wall-effect housing estates and skyscrapers in Tsuen Wan, such as Nina Tower, Vision City Chelsea Court and Indi Home. The new development can only make the problem even worse.

The above completed and under planning buildings can set up a 1 km long “wall” stand along the waterfront in Tsuen Wan. Most of them are 40 storey and more with height over 100 meters. These buildings, which can make a wall with the area equals to 20 football fields, will block the wind from blowing into inner area of Tsuen Wan.

Tsuen Wan is an area mixed with old and new buildings. Most of the old buildings are 6 to 7 storey high. The Urban Renewal Authority (URA) responsible for many redevelopment projects in Tsuen Wan in which many of them are high-rise and interconnected buildings projects. The wall-effect caused by these new buildings will affect the ventilation of Tsuen Wan city. (Green Sense)

2. Concept map

Draw a concept map, mind map or other diagrams to connect and organize all the concepts related to the study.



3. Proposal



Topic : _____

Related concepts : _____

Aims : _____

Focusing Questions : _____

Research methods : _____

Teacher comments

Topic : _____

Focusing Questions : _____

Research methods : _____

4. Hints on proposal and report writing

1. Study topic:

- List out all the areas of interest after brainstorming and screen out feasible study topic within the list.
- Topic should meet at least two of the following conditions
 - Interesting
 - Valuable to solve
 - Able to solved
 - Have ways to solve
 - With information to solve
 - Possible to solve
 - With enough time to solve
 - There is a room to express your personal opinions and can solve the problem in creative way

(Reference: Teaching Resources, The Hong Kong Institute of Education)

2. Introduction:

Included background, related concepts and knowledge of study topic

Try to answer the following questions:

- What information or knowledge do you know about the study topic?
- What interested you in that particular topic?
- What concepts or knowledge involved in this topic?

3. Aim

Two to three aims are enough. Try to answer the following questions:

- What do you expect to find through this study?
- What other investigations do you need to do?

4. Questions

Identify two to three important questions (depends on the study time you spend) of the study to make the study more focus.

- What do you want to know? (Raise the questions that you are interested in)
- Use 5W+1H, i.e. Who, What, When, Where, Why, How to help organizing problems and think systematically.
- Ask investigatory questions (i.e. How or Why questions).
- Draw a mind map on your study topic. Identify the interesting parts and rewrite them into investigatory questions.

5. Methods

Please think carefully on the following questions about the method(s) you employ:

- Dangerous or not? (If yes, do not use it!)
- Related to investigatory questions or not?
- With enough time and resources or not?
- Feasible or not?
- Do the information you want to get open to public or can be obtained easily?
- Do the respondents really want to be interviewed? Please answer the following questions before conducting interview:
 1. Who will be the respondent?
 2. What are the questions? (Three to four questions are good enough)

6. Result analysis

- Organise all the information you collected and identify useful information
- Use text and table to present your data
- Use reference information to help explaining data

7. Conclusion

- Support your arguments with data and make conclusion.
- Answer all questions you raise in the study

8. Self-reflect or suggestions

- Express you personal opinions on study result
- Raise out the shortcomings of the study
- Suggest improvements

9. Appendix

Included:

- Information record table
- Interview record table
- Questionnaire sample
- Other information record table

10. Reference

Report should include all the following reference information:

- Books
- Journals
- Websites
- Magazines
- Other reference information you used

5. Memo to students

Pre-field trip preparation

Please prepare the following before field trip:

1. Please divide in groups with five to six members each. Eight groups at most.
2. Please read all the information provided by our centre before field trip. (Please see “Data collection” section in detail)
3. Please collect information you need beforehand and have brief understanding about the aim of the field trip.
4. Please complete concept map and proposal section in the student handbook before the field trip.
5. All the teachers and students should prepare with the following guideline.

Personal preparation and equipments:

1. Sufficient rest and sleep (8-hour sleep is suggested)
2. Have breakfast before field trip
3. Wear sport or proper clothing (Suggestions: long or short shirt, trousers and wind-breaker when necessarily)
4. Wear sport shoes
5. Bring along sufficient drinking water
6. Bring umbrella, mosquito repellent and sunscreen lotions when necessary

During the field trip

1. Safety is the most important consideration to all members.
2. Beware of the weather change. In case of the weather condition worsening, teachers may cancel the field trip.
3. All participants should work in groups. No participant should work alone.
4. Participants should work in location where your teacher assigned, take note of the time of assembly and complete the study on time.
5. Be considerate of others during the field trip in terms of noise.
6. Respect other person’s privacy when taking photos for your own record during field trip.
7. Please report to your teacher as soon as possible if you feel unwell or in case of emergency.

Data collection

A. Related websites

1. 環保觸覺

<http://www.greensense.org.hk/>

荃灣將變城市焗爐

http://www.greensense.org.hk/densebuilding/GreenSense_PressRelease_20061119.doc

香港的屏風樓宇問題

<http://legco.gov.hk/yr06-07/chinese/panels/plw/papers/plw0227cb1-983-3-c.pdf>

2. 信和集團 - 萬景峯及荃新天地(荃灣)

http://www.sino-land.com/cht/default.asp?xid=cc_gs

3. 荃灣新發展項目 (發展局 - 新聞公報)

http://www.devb.gov.hk/tc/publications_and_press_releases/press/index_id_6126.html

4. 西鐵荃灣西站物業發展項目 (發展局 - 新聞公報)

http://www.devb.gov.hk/tc/publications_and_press_releases/press/index_id_2716.htm

B. Related videos

1. 荃灣 屏風效應

<http://www.youtube.com/watch?v=H-aOXf57T48&feature=related>

2. 鏗鏘集 - 屏息以待 (香港電台 2010 年 8 月 1 日)

<http://www.youtube.com/watch?v=itWuvDNGNQo>

C. Related newspaper articles 123456

1. 環團促申請荃灣地皮減密度 (頭條日報 2008 年 7 月 14 日)

http://www.hkheadline.com/news/html_wnn/html/2008/7/14/wnn54413.html?section_name=wnn

2. 林鄭：降密度要考慮經濟代價 (星島 2008 年 11 月 26 日)

<http://news.sina.com.hk/cgi-bin/nw/show.cgi/5/1/1/952091/1.html>

3. 人體熱能溫度 城市環境氣候指標 (明報 2009 年 9 月 28 日)

<http://news.sina.com.hk/news/990/3/1/1278487/1.html>

4. 油尖旺密不透風 4 區將「窒息」 專家稱 3 年後隨時熱 2 度 促盡快急救

(明報 2009 年 9 月 28 日)

<http://news.sina.com.hk/news/990/3/1/1278488/1.html>

6. Sample record form

Please construct your own table according to your need.

A. Table of Observation Record

Focus of observation	Observation
Features of the environment or place	
Atmosphere of the environment or place	
Characteristics of citizen	
Behavior of citizen	
Impact of interaction on human, environment and place	
Special events or features, number of occurrence	
Personal impression	

B. Table of Investigation Record

Study topic:	
Date and Time:	Place:
Investigation objects:	Number of persons involved:
Aim:	
Method and Content: (Questionnaires, Street interview, On-the-spot record)	
Summary of the result:	
Self-reflect after investigation: (Goal achieved? Smooth or not? What do you know through this investigation? What else need to follow?)	

C. Table of Interview Record

Study topic:	
Date and Time:	Place:
Investigation objects:	Number of persons involved:
Aim:	
Focus of the interview:	
Summary of the interview:	
Self-reflect after interview: (Goal achieved? Smooth or not? What do you know through this interview? What else do you need to follow?)	

(Reference: : 張人紅(2002)《研究性學習管理用書》，南寧：廣西人民出版社。)