



# Industrial Locations (Tai Po)

## Enquiry Skills Approach, Version 1.1

### A. Planning and Preparation

#### Objectives

1. Identify and compare the characteristics of Tai Po Industrial Estate (brownfield site) and Hong Kong Science Park (greenfield site).
2. Identify different types of industries and their locational advantages.

#### Scope of the Study

1. Tai Po Industrial Estate
2. Hong Kong Science Park

#### Field Work Plan

1. According to the map, take a walk according to the assigned route in the studying area.
2. Record the wind speed, wind direction, noise level and air quality at each checkpoint along the route, and mark down in Table 1.1 and Table 1.2.
3. Count the major type of vehicles and the number of vehicles passing by from all directions for 1 minute, and record in Table 1.1 and Table 1.2.
4. Observe the characteristics of the surroundings along the route, and compare the features of Tai Po Industrial Estate and Hong Kong Science Park with Table 1.3.
5. Along the assigned route, mark down the company names on the map in the studying area.
6. Follow the instructions, visit the assigned buildings in Hong Kong Science Park and mark down the company names in Table 1.4.
7. Follow the instruction, study the design features of green buildings in Hong Kong Science Park Phase 3.

#### Think About

List the reasons of choosing Tai Po industrial Estate and Hong Kong Science Park as the field study sites.

List the potential safety risks when conducting the fieldwork in industrial area.

## B. Data Collection

### Data Items

1. Types of industries
2. Characteristics of industrial site
3. Noise level
4. Dust particulates level
5. Wind direction
6. Wind speed
7. Types and number of vehicles
8. Number of parking vehicles

### Think About

What are the methods used in the collection of information and data in this field study?

### Sampling Method

1. Systematic Sampling

### Equipment List

Items	Quantity	Checked	Returned
1. Base map (Individual)	x3	<input type="checkbox"/>	<input type="checkbox"/>
2. Clipboard (Individual)	x1	<input type="checkbox"/>	<input type="checkbox"/>
3. Compass (Individual)	x1	<input type="checkbox"/>	<input type="checkbox"/>
4. Dust particulates meter	x1	<input type="checkbox"/>	<input type="checkbox"/>
5. Sound meter	x1	<input type="checkbox"/>	<input type="checkbox"/>
6. Anemometer	x1	<input type="checkbox"/>	<input type="checkbox"/>
7. Counter	x1	<input type="checkbox"/>	<input type="checkbox"/>

### Data Recording sheet

Table 1.1 Information record sheet of Tai Po Industrial Estate

Checkpoint	Dust Particulates ( $\mu\text{g}/\text{m}^3$ )	Noise Level (dB)	Wind Speed (m/s) and Wind Direction		No. of Vehicles	Major Types of Vehicles
1						
2						
3						

Table 1.2 Information record sheet of Hong Kong Science Park

Checkpoint	Dust Particulates ( $\mu\text{g}/\text{m}^3$ )	Noise Level (dB)	Wind Speed (m/s) and Wind Direction		No. of Vehicles	Major Types of Vehicles
1						
2						
3						

Table 1.3 Record Form of the Studying Areas

	Tai Po Industrial Estate	Hong Kong Science Park	Remarks/ Examples
<b>1. LAND USE AND CHARACTERISTICS OF BUILDINGS</b>			
a. Plot ratio: (The ratio between the gross floor area of a building and the area of the site on which it is erected.)	Higher/ Lower	Higher/ Lower	
b. Design of buildings	Modern/ Traditional	Modern/ Traditional	
c. Building materials	Describe:	Describe:	
d. Maintenance of buildings	Good/ Poor	Good/ Poor	
e. Presence of warehouses	Yes/ No/ No need	Yes/ No/ No need	
f. Areas for further expansion	Yes/ No	Yes/ No	
g. Adjacent Land Use	Describe:	Describe:	
<b>2. BASIC FACILITIES</b>			
a. Parking facilities	Abundant/ Enough/ Inadequate	Abundant/ Enough/ Inadequate	
b. Utility supply (Design for specific industry e.g. gas, electricity, laboratory)	Describe:	Describe:	
c. Industrial waste treatment facilities (e.g. sewage treatment works)	Yes/ No	Yes/ No	
d. Fire Station	In close proximity/ Far away	In close proximity/ Far away	
e. Banking services	Yes/ No	Yes/ No	
f. Restaurants	Yes/ No	Yes/ No	
<b>3. ROAD AND TRANSPORT FACILITIES</b>			
a. Paving and Road  <ul style="list-style-type: none"> <li>• No damage or broken of road surface, in good condition = 10</li> <li>• Around 25% damaged, road surface in need of repair = 5</li> <li>• Around 50% or more damaged, road surface in need of repair = 0</li> </ul>	Score	Score	
b. Parking Index : 1 motorcycle = 0.5 car 1 private car = 1 car 1 goods vehicle = 2 cars 1 container vehicle = 3 cars	No. of cars/ 100m	No. of cars/ 100m	

c. Road safety facilities	Abundant/ Enough/ Inadequate	Abundant/ Enough/ Inadequate	
d. Types of public transport and their connected regions	Describe:	Describe:	
<b>4. LANDSCAPE AND VEGETATION</b>			
a. Greening proportion	Higher/ Lower	Higher/ Lower	
b. Presence of Parks	Yes/ No	Yes/ No	
c. Presence of landscape decoration/ artwork	Yes/ No	Yes/ No	
d. Street Furniture Include street lighting, litter bins, street lights and road signs  <ul style="list-style-type: none"> <li>• All items in good condition = 10</li> <li>• Around 25% damaged, some items in need of maintenance = 5</li> <li>• Around 50% or more damaged, in need of maintenance = 0</li> </ul>	Score	Score	
e. Scenery	Describe:	Describe:	

Table 1.4 Types of Companies in Hong Kong Science Park

Name of the Building: _____			
1.		2.	
3.		4.	

**Think About**

List out the possible errors when recording data with equipment.

List out the advantages of using record form.

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**Study the Green features in Hong Kong Science Park**

(Reference: <http://greenbuilding.hkgbc.org.hk/projects/view/81>)

Follow the instructor that shows you some green building design features in Hong Kong Science Park Phase 3. You can also discover how technological innovations have emerged into modern architectural design and shape our way towards a greener future.

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### C. Data Processing, Presentation and Analysis

#### Think About

List the merits and demerits of the chosen diagrams.

### D. Interpretation and conclusion

1. List FOUR locational advantages of Tai Po Industrial Estate.

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2. List the different types of industries found in Tai Po Industrial Estate. Give examples.

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3. List FOUR locational advantages of developing industries in Hong Kong Science Park.

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4. What types of industries are located in Hong Kong Science Park ?

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5. Compare and analyse the environmental quality of Tai Po Industrial Estate and Hong Kong Science Park.

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**E. Evaluation**

1. Other than the data collected in this course, suggest other data and information you might need to further investigate the industries in Tai Po Industrial Estate and Hong Kong Science Park. Explain your answer.

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