



Study of a Freshwater Stream Ecosystem

(Human impact on the environment)

Background information:

Tai Tso Stream runs through Chuen Lung Village. Would human activities in Chuen Lung Village affect the freshwater stream ecosystem? If yes, how?

Task:

Design and carry out an qualitative investigation on what human activities are affecting the freshwater stream ecosystem in Chuen Lung and how the ecosystem is affected.

Write a full report for your investigation work and your findings.

Available equipment and material:

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| 1. Water flow meter (current meter) | 2. Water sampling bottle |
| 3. Droppers | 4. Sorting tray (White Plastic Tray) |
| 5. Aquarium net | 6. Metal sieve |
| 7. Brush pen | 8. Forceps |
| 9. Magnifying glasses | 10. Vials (5 pcs) |
| 11. Rubber gloves | 12. Dissolved oxygen meter (to be used in Lab.) |
| 13. pH meter (to be used in Lab.) | 14. Total Dissolved Solids meter (to be used in Lab.) |
| 15. Water filtration set (to be used in Lab.) | 16. Filter paper in the oven (to be used in Lab.) |
| 17. Compound microscope and glass slides (to be used in Lab.) | 19. "Hillstreams" (Book) |
| 18. Standard glasswares (to be used in Lab.) | |
| 20. "Wildlife Pictorial Guide" (Book) | |

Some items listed above may not be useful, students should decide what to be used. Additional equipment or material can be provided upon request, as long as the request item is available.

Procedure and time arrangement:

1. Group discussion and formulation of investigation plan - 50 mins
2. Distribution of equipment - 10 mins
3. Field work - 90 mins
4. Laboratory work - 60 mins
5. Group discussion and interpretation of results - 90 mins
6. Write up the full report

