## Cambridge IGCSE ${ }^{\text {TM }}$

## GEOGRAPHY

0460/43
Paper 4 Alternative to Coursework
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INSERT

## INFORMATION

- This insert contains additional resources referred to in the questions.
- You may annotate this insert and use the blank spaces for planning. Do not write your answers on the insert.

Fig. 1.1 for Question 1

## Employee questionnaire

I am a student at Rivington School. Please answer the following questions for my IGCSE Geography fieldwork.

What type of work do you do?
$\square$ Research and DevelopmentComponent Assembly

1. In which part of the urban area do you live?

| Wirral | Prescot |
| :---: | :---: |
| Liverpool | Huyton |
| Crosby | Rainford |
| Formby | St Helens |
| Southport | Whiston |
| West Lancashire | Haydock |
| Kirkby |  |

2. What are the two main disadvantages of living in your chosen area?
3. $\qquad$
4. $\qquad$

Thank you for your help.

Fig. 1.2 for Question 1

## Part of a student's recording sheet

| Part of the urban area | Research and development employees | Assembly work employees |
| :---: | :---: | :---: |
| Wirral | W IIII | III |
| Liverpool | WH | WK W W W III |
| Crosby | WH1 | IIII |
| Formby | WH WH | I |
| Southport | WH WH W I | \| |
| West Lancashire | W II | IIII |

Table 1.1 for Question 1
Answers to Question 1 in the questionnaire:
In which part of the urban area do you live?

| Part of the urban <br> area | Research and <br> development <br> employees | Assembly work <br> employees |
| :--- | :---: | :---: |
| Wirral | 8 | 3 |
| Liverpool | 5 | 23 |
| Crosby | 6 | 4 |
| Formby | $\mathbf{1 0}$ | 1 |
| Southport | 16 | 1 |
| West Lancashire | 7 | 4 |
| Kirkby | $\mathbf{2}$ | 16 |
| Prescot | 7 | $\mathbf{1 5}$ |
| Huyton | 9 | 19 |
| Rainford | 9 | 2 |
| St Helens | 8 | 7 |
| Whiston | 10 | 3 |
| Haydock | 100 | 2 |
| Total |  | 100 |

## Table 1.2 for Question 1

## Answers to Question 2 in the questionnaire:

What are the two main disadvantages of living in your chosen area?

| Disadvantage | Research and <br> development <br> employees | Assembly work <br> employees |
| :--- | :---: | :---: |
| The journey to work takes a long time | 36 | 2 |
| Congested roads on the journey to work | 32 | 5 |
| Overcrowded trains on the journey to work | 18 | 6 |
| Noise from traffic and aircraft | 8 | 12 |
| Social disorder, e.g. gangs, graffiti, vandalism | 3 | $\mathbf{3 4}$ |
| No open spaces for recreation | 1 | $\mathbf{2 3}$ |
| Poor schools | 2 | $\mathbf{1 8}$ |
| Total | 100 | 100 |

Fig. 2.1 for Question 2
Fieldwork sites


Key

$A_{-2}^{1} \quad$| transect line |
| :--- | :--- |
| and fieldwork |
| sites |


m

Fig. 2.2 for Question 2

## Measuring infiltration



Table 2.1 for Question 2
Results of students' measurements of water level along transect A

| Time of <br> measurement <br> $(\mathrm{min})$ | Water level in plastic tube $(\mathrm{mm})$ |
| :---: | :--- |

Transect A

|  | site 1 | site 2 | site 3 | site 4 | site 5 | site 6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 120 | 120 | 120 | 120 | 120 | 120 |
| 1 | 119 | 115 | 115 | 115 | 111 | 118 |
| 2 | 117 | 109 | 109 | 106 | 98 | 115 |
| 3 | 115 | 100 | 74 | 99 | 80 | 113 |
| 4 | 110 | 95 | 45 | 88 | 70 | 111 |
| 5 | 108 | 84 | 34 | 81 | 62 | 108 |
| 6 | 105 | 76 | 18 | 76 | 50 | 106 |
| 7 | 102 | 63 | 10 | 69 | 35 | 103 |
| 8 | 100 | 55 | 5 | 63 | 24 | 96 |
| 9 | 98 | 53 | 2 | 58 | 16 | 92 |
| 10 | 95 | 48 | 0 | 55 | 2 | 85 |

Table 2.2 for Question 2
Infiltration rate at sites away from lake

| Site number | Distance from <br> lake $(\mathrm{m})$ | Infiltration rate (mm per min) |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Transect A | Transect B | Transect C |
| 1 | 15 | 2.5 | 1.5 | 18.2 |
| 2 | 30 | 7.2 | 2.0 | 20.0 |
| 3 | 45 | 12.0 | 5.1 | 13.3 |
| 4 | 60 | 6.5 | 11.3 | 17.1 |
| 5 | 75 | 11.8 | 13.3 | 13.3 |
| 6 | 90 | $\mathbf{3 . 5}$ | 17.1 | $\mathbf{1 5 . 0}$ |

Table 2.3 for Question 2
Gradient results at sites on transect $\mathbf{C}$

| Site number | Slope gradient <br> $\left({ }^{\circ}\right)$ | Infiltration rate <br> $(\mathrm{mm}$ per min) |
| :---: | :---: | :---: |
| 1 | 7 | 18.2 |
| 2 | 4 | 20.0 |
| 3 | 2 | 13.3 |
| 4 | 6 | 17.1 |
| 5 | 10 | 13.3 |
| 6 | $\mathbf{9}$ | $\mathbf{1 5 . 0}$ |

Table 2.4 for Question 2

|  | site 1 | site 2 | site 3 | site 4 | site 5 | site 6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Infiltration rate <br> $(\mathrm{mm}$ per min$)$ | 2.5 | 7.2 | 12.0 | 6.5 | 11.8 | 3.5 |
| Type of <br> vegetation | scrub grass | grass | dense grass | grass | dense grass | patchy grass |


| Transect B |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | site 1 | site 2 | site 3 | site 4 | site 5 | site 6 |
| Infiltration rate <br> (mm per min) | 1.5 | 2.0 | 5.1 | 11.3 | 13.3 | 17.1 |
| Type of <br> vegetation | bare soil | scrub grass | grass | dense grass | dense grass |  <br> bushes |


| Transect C |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | site 1 | site 2 | site 3 | site 4 | site 5 | site 6 |
| Infiltration rate <br> (mm per min) | 18.2 | 20.0 | 13.3 | 17.1 | 13.3 | 15.0 |
| Type of <br> vegetation |  <br> papyrus grass |  <br> papyrus grass | dense grass | dense grass | dense grass | dense grass |

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