



National  
Qualifications  
2018

**X733/77/11**

**Geography**

TUESDAY, 1 MAY  
9:00 AM – 11:30 AM

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**Total marks — 50**

**Attempt ALL questions**

Credit will be given for appropriately labelled sketch maps and diagrams.

You must use the Supplementary Items and tracing overlays provided for annotation or as a base for diagrams. These resources should be placed inside the front cover of your answer booklet.

You should use the atlas provided.

Write your answers clearly in the answer booklet provided. In the answer booklet you must clearly identify the question number you are attempting.

Use **blue** or **black** ink. You may use pencil for the completion of Supplementary Item B — tracing overlay.

Before leaving the examination room you must give your answer booklet to the Invigilator; if you do not, you may lose all the marks for this paper.



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**Total marks — 50**  
**Attempt ALL questions**

**Question 1 — Map interpretation**

To answer this question you will need to use:

- Supplementary Item A — Ordnance Survey (OS) Map Extract Penrith, Patterdale and Caldbeck.
- Supplementary Item B — tracing overlay
- Supplementary Item C — photographs
- The atlas provided.

You should make detailed use of the whole map extract as well as using your atlas appropriately. You should also carefully read the information in the text boxes.

Fell running is a popular sport in the Lake District. It involves running in mountains and high moorland on either designated footpaths and/or in remote areas without footpaths. Map and navigational skills are essential. In September 2019 the Lake District is hosting the National Fell Running competition. The competition will take place over four days. It will attract visitors from across the UK. It is anticipated that there will be up to 2000 competitors.

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|-----|--|---|
| (a) | (i) On the tracing overlay (Supplementary Item B) draw accurately a proposed route for this event. Your route should be between 12 and 15 km long. The start and finish points should be clearly marked. | 3 |
|     | (ii) Annotate your chosen route on the tracing overlay to highlight the reasons for your choice.   | 4 |
|     | (iii) Evaluate the impact(s) that the event may have on the local area.  | 4 |

In the Lake District water has been used historically to power traditional industries using water wheels.

More recently, and related to increasing energy costs, climate change concerns and awareness of sustainability, there has been interest from several communities in the Lake District and local landowners in the development of small hydropower schemes to generate electricity using fast moving water.

Supplementary Item C shows photographs of a proposed development at Hayeswater Gill (GR 423130)

- |     |  |   |
|-----|--|---|
| (b) | Explain the suitability of a small hydropower scheme at this location.             | 5 |
| (c) | Analyse the factors that have influenced the different land uses around Ullswater. | 4 |

## Question 2 — Gathering and processing techniques

To answer this question you will need to use:

- Supplementary Item A — Ordnance Survey (OS) Map Extract Penrith, Patterdale and Caldbeck.

Outdoor People Counters are increasingly common along footpaths that are popular with tourists. Targeted locations for the counters could include:

- hiking and nature trails
- mountain bike trails
- forestry and coastal tracks
- historical and geological sites
- outdoor visitor centres.

The electronic counters are laid underground and use radio-beam technology to continuously count the number of pedestrians who pass a designated point.

Public footpaths can be adversely affected by high usage.

The Lake District National Park Authority (LDNPA) wishes to investigate varying footpath usage and its impact on the environment, over a year.

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|--|---|
| (a) Using a 6 figure grid reference, identify a suitable location for the siting of an Outdoor People Counter. Justify your choice of location.  | 2 |
| (b) Discuss the advantages and disadvantages of using electronic Outdoor People Counters compared to traditional fieldwork gathering techniques. | 4 |
| (c) Explain other data gathering techniques that could be used to provide additional data for the investigation.                                 | 4 |

[Turn over

**Question 3 — Geographical data handling**

To answer this question you will need to use:

- Supplementary Item D — Map 1, Tables 1 and 2, Diagram 1
- The atlas provided

(a) Study Map 1

A choropleth map has been used to show forest cover across Europe (as a % of the land area) in 2015.

- (i) Evaluate the effectiveness of using a choropleth map to show this information. 4
- (ii) Explain possible reasons for the variation in forest cover across Europe. 4

(b) The Forestry Commission wants to investigate trends in the coverage of woodland in the UK from 2007 to 2017.

- (i) Using the data in Table 1, discuss a graphical technique that could be used to show woodland cover across the UK (2007-17).
- (ii) Using the data in Table 2, suggest a statistical technique that could be used to analyse possible relationships between data sets. Discuss the suitability of your chosen technique. 7

(c) With reference to the information shown in Supplementary Item D, discuss possible reasons for the change(s) in the % of woodland cover in the UK since 2007. 5

**[END OF QUESTION PAPER]**