YEAR 7 GEOGRAPHY · BOOKLET 3 OF 3

Geographical Fieldwork

How geographers ask a question, gather data, and judge their own work

This booklet ties together the skills from the first two.

This belongs to **Henry**.

1. All Around Us | 2. Oceania and Hazards | 3. Fieldwork

The big idea of this booklet

Fieldwork is just a clear way of answering a real question. Ask, gather, present, judge. Each step has a name, and that is most of the marks.

BEFORE YOU START

How to use this booklet

Same shape as the first two. Read once, then ignore.

- Each topic gives **the big question**, then **the idea**, then key words.
- Then questions: quick check, then explain, then one six mark question.
- One page at a time. Nothing is timed. Reading the example answers is part of the work.

A note on this booklet

Fieldwork is mostly about knowing the right words for each step. Once you can name the stages and the types of data, the questions get much easier.

THE BACKBONE

The things to know cold

> Three things carry most of the marks in this booklet.

The two data splits

Primary or secondary (who collected it). And **quantitative or qualitative** (numbers or words). These are two separate splits.

The shape of an investigation

Ask a question, make a prediction, collect data, present it, work out what it shows, then judge how well it went.

Why some places flood

Heavy rain, steep slopes, hard rock that water cannot soak into, and hard city surfaces all make flooding more likely.

TOPIC 1

How an investigation works

> **The big question:** What are the steps a geographer follows to answer a real question?

The idea

Fieldwork means going out and gathering your own information to answer a question.

It always follows the same steps, in order.

1. Question. Decide what you want to find out.

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2. Hypothesis. Make a prediction you can test.

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3. Plan and risk assessment. Decide how to collect data, and how to stay safe.

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4. Collect data. Go and gather it.

↓

5. Present data. Show it in graphs, tables or maps.

↓

6. Analyse and conclude. Work out what it shows, and answer the question.

↓

7. Evaluate. Judge how well it went and what you would change.

Enquiry question and hypothesis

The idea

These two sound similar, but they do different jobs.

Enquiry question

The question you are investigating. For example: "How does the river change as you go downstream?"

Hypothesis

A prediction you can test. For example: "The river gets wider downstream." At the end you say whether the data agrees with it.

How they fit together

The enquiry question is the big thing you want to know. The hypothesis is your sensible guess at the answer, written so that data can prove it right or wrong.

Watch out

A hypothesis is not just any sentence. It has to be something your data can test. "Rivers are interesting" cannot be tested. "The river gets wider downstream" can.

TOPIC 1: QUESTIONS

Investigations: your turn

QUICK CHECK

1. What is the first step of an investigation?

2. What is a hypothesis?

3. Which step is about judging how well your work went?

4. Write a hypothesis that could be tested about a river.

EXPLAIN WHY

Explain why a hypothesis has to be something you can test.

EXAMPLE ANSWER

Point. A hypothesis has to be testable so that the data can show if it is right or wrong.

Evidence. For example, "the river gets wider downstream" can be checked by measuring the width at different points.

Explain. This matters because the whole point of fieldwork is to use real data to answer the question, and you cannot do that with a guess that nothing can prove.

TOPIC 2

Types of data

> **The big question:** What are the different kinds of data, and how do you tell them apart?

Split one: who collected it

Primary data

Data **you** collect yourself, out in the field. Measuring a river, counting cars, asking people.

Secondary data

Data **someone else** collected, that you look up. Websites, books, old maps, the census.

Split two: numbers or words

Quantitative data

Data that is **numbers**. Measurements and counts. How wide, how many, how fast.

Qualitative data

Data that is **words and opinions**. Descriptions, photos, what people say and feel.

The two splits combine

A piece of data fits one from each split. If you go out and count cars yourself, that is **primary** and **quantitative**. If you read people's written reviews of a place, that is **secondary** and **qualitative**.

Watch out

Primary and secondary is about *who collected it*. Quantitative and qualitative is about *numbers or words*. They are two different questions, not the same one.

TOPIC 2: QUESTIONS

Types of data: your turn

QUICK CHECK

1. What is primary data?

2. Give one example of secondary data.

3. Is "how many people walked past in ten minutes" quantitative or qualitative?

4. You count cars yourself at a junction. Name both types this data is (one from each split).

EXPLAIN WHY

Explain why a geographer might collect both quantitative and qualitative data in the same study.

EXAMPLE ANSWER

Point. The two types tell you different things, so together they give a fuller picture.

Evidence. Quantitative data, like counting cars, tells you how much. Qualitative data, like what people say, tells you how they feel about it.

Explain. This matters because numbers alone do not explain why people behave as they do, and opinions alone cannot be measured. Using both makes the conclusion stronger.

TOPIC 3

Fieldwork skills

> **The big question:** How do you plan, stay safe, and gather data in the field?

Risk assessment

Before going out, you list the dangers and how to reduce them.

Example: studying a river

Danger: slipping on wet rocks, or deep water. How to reduce it: wear suitable footwear, work in pairs, stay in shallow water, and check the weather first.

Methodology

This is your plan. It says **how** you will collect data, **where**, **when**, and **why** you chose that method.

Data collection methods

- **Measuring.** Using a tape or ruler, for example river width.
- **Counting.** A tally of cars or people in a set time.
- **Questionnaires.** Asking people set questions.
- **Field sketches and photos.** Recording what a place looks like.

Presenting data

Once collected, data is shown in a clear form: **bar charts**, **line graphs**, **pie charts**, **tables**, or on **maps**. The right choice depends on the data.

Flooding factors

The idea

A common fieldwork topic is flooding. Some areas flood far more easily than others.

Several things make flooding more likely. They add up.

- **Heavy or long rainfall.** More water arrives than the ground and rivers can hold.
- **Steep slopes.** Water runs downhill fast instead of soaking in.
- **Hard rock.** If water cannot soak into the rock, it stays on the surface and runs off.
- **Already wet ground.** If the ground is full of water, no more can soak in.
- **Few plants.** Plants normally soak up water. With fewer of them, more runs off.
- **City surfaces.** Concrete and tarmac send water straight to drains and rivers.

The link to make

All of these do the same thing. They send water into the river faster, instead of letting it soak away slowly. That is what causes a flood.

TOPIC 3: QUESTIONS

Fieldwork skills: your turn

QUICK CHECK

1. What is a risk assessment?

2. Name two ways of collecting data in the field.

3. Name two ways of presenting data.

4. Give two things that make flooding more likely.

SIX MARKS

Explain why some areas flood more easily than others. **[6 marks]**

EXAMPLE ANSWER

One reason is the weather. Heavy or long rainfall drops more water than the ground and the river can hold, so the extra water spreads out as a flood. The land matters too. On steep slopes water runs downhill quickly instead of soaking in, and if the rock is hard the water cannot soak away at all, so it runs straight into the river.

People also make a difference. In cities, concrete and tarmac stop water soaking into the ground, so it rushes into the drains and rivers very fast. When there are also few plants to soak water up, even more runs off. As a result, the river fills faster than it can cope with. Overall, areas flood more easily when water is sent into the river quickly rather than soaking away slowly.

Now try your own answer.

TOPIC 4

Evaluation

> **The big question:** How do you judge how good your own fieldwork was?

The idea

At the end, a good geographer is honest about their own work.

This is called evaluation. There are four things to think about.

Strengths
What went well. For example, a large sample, or a method that was quick and safe.

Weaknesses
What did not. For example, too few results, human error, or the weather changing the data.

Reliability
Whether you would get the same result if you did it again. Repeated, steady results are more reliable.

Improvements
What you would change next time. A bigger sample, more sites, or repeating it on different days.

Watch out

Saying "it went well" is not an evaluation. You have to say *what* went well or badly, and *why*, and what you would do differently.

TOPIC 4: QUESTIONS

Evaluation: your turn

QUICK CHECK

1. What does "reliability" mean in fieldwork?

2. Give one possible weakness of a piece of fieldwork.

3. Give one way to improve a study.

EXPLAIN WHY

Explain why taking more measurements can make a study more reliable.

EXAMPLE ANSWER

Point. More measurements make a study more reliable.

Evidence. If you measure a river's width at one spot only, a one off odd result could be wrong. Measuring at many spots gives a fuller set of data.

Explain. This matters because a single result might be a mistake or unusual, but a pattern across many results is more likely to be true, so you can trust the conclusion more.

PUTTING IT TOGETHER

How this booklet links up

Fieldwork is not a separate subject. It is how geographers study everything in the first two booklets.

The stages are one loop

Question, prediction, collect, present, conclude, evaluate. If you can name the stages in order, you can answer most fieldwork questions, because nearly every question is really about one of these steps.

Skills carry across the whole course

The map skills from booklet 1 and the climate graph from booklet 2 are both ways of presenting and reading data. Fieldwork is where you would use them on your own results.

Real topics tie it together

Flooding is a good example. It links physical geography, human geography and fieldwork all at once. That is why it is a strong topic to understand well.

IF TIME IS SHORT

What to revise first

Fieldwork marks come from knowing the right words for each step. Protect these.

1 **The two data splits**

Primary or secondary, and quantitative or qualitative. Easy, reliable marks.

2 **The stages of an investigation**

In order. Many questions are just asking which stage is which.

3 **Flooding factors**

A likely longer question, and it links to the rest of the course.

4 **Evaluation words**

Strengths, weaknesses, reliability, improvements.

The must know floor for this booklet

- The difference between primary and secondary data.
- The difference between quantitative and qualitative data.
- The stages of an investigation, roughly in order.
- The difference between an enquiry question and a hypothesis.
- Two or three reasons some areas flood more easily.
- What evaluation means: strengths, weaknesses, reliability, improvements.

MARK YOUR OWN

Answers to the quick check questions

For the short questions only. The explain and six mark questions have examples next to them.

Topic 1: Investigations

1. Deciding the question, what you want to find out.
2. A prediction you can test with data.
3. Evaluation.
4. Any testable prediction, for example: the river gets faster downstream.

Topic 2: Types of data

1. Data you collect yourself, out in the field.
2. Any one of: a website, a book, an old map, the census.
3. Quantitative.
4. Primary and quantitative.

Topic 3: Fieldwork skills

1. A list of the dangers of an activity and how to reduce them.
2. Any two of: measuring, counting, questionnaires, field sketches, photos.
3. Any two of: bar chart, line graph, pie chart, table, map.
4. Any two of: heavy rainfall, steep slopes, hard rock, already wet ground, few plants, city surfaces.

Topic 4: Evaluation

1. Whether you would get the same result if you did it again.
2. Any one of: too few results, human error, the weather changing the data, a biased question.
3. Any one of: a bigger sample, more sites, repeating on different days.