Pearson

Primary Geography

Local Fieldwork

Name:

Class:

Knowledge organiser

Vocabulary	
Accuracy	How limited errors have been, therefore how likely it is that data give true results
Analysis	Detailed examination, usually of data
Conclusion	Drawing together results to reach an answer. In fieldwork, drawing results from data to answer the enquiry question
Data	Facts or information collected for analysis
Evaluation	Weighing up the positives and negatives. In fieldwork, thinking about how reliable and accurate the results are
Fieldwork	Gathering information in a real environment, outside the classroom
Hypothesis	An idea, used as the basis for fieldwork or research
Qualitative data	Data in words or images, usually containing views, opinions or feelings
Quantitative data	Data with a numerical (number) value
Research	Investigation to test an idea or discover facts and information

Bar graph	To show discrete data (data that is counting something) often in different categories
Pie chart	To show proportions
Line graph	To show the relationship between data sets, for example, change over time

Why fieldwork?
Discover new ideas and create new knowledge
Understand more about what you learn in the classroom or in books

Enquiry question
All fieldwork starts with an enquiry question. The enquiry question guides the fieldwork so that the data collected is relevant.

Fieldwork tools	
Maps	Maps display information and data that geographers may find useful when studying a particular place
Four-figure grid references	Remember: Along the corridor (*x*-axis), then up the stairs (*y*-axis)
Field sketch	A simple drawing of the area you are studying, including labels
Survey	A review of a particular feature of the physical or human environment, for example, a traffic survey, counting number and type of vehicles
Questionnaire	A list of questions (usually with options for answers) that the researcher will ask individuals

Learning review

Lesson	Lesson question	You will learn...	Learning review
1	Why do geographers do fieldwork?	• What fieldwork is. • What the purpose of fieldwork is. • How geographers can help people by doing different types of fieldwork. • How maps are used for fieldwork.	
2	What tools do geographers use for fieldwork?	• What a field sketch is and how a geographer makes one. • What the difference is between quantitative and qualitative data. • What a questionnaire is. • What a survey is.	
3	How do geographers collect and present data?	• How surveys and questionnaires are conducted. • How different types of graphs can be used to present data. • Why geographers use different collection tools. • How to plot data on different graphs and charts.	
4	Designing tools for fieldwork	• What your enquiry question will be. • Which tools you will use to collect your data.	
5	Conducting fieldwork	• What data you have collected. • How to make sure that it is accurate.	
6	Assessment: What does your fieldwork show?		

Lesson 1

Why do geographers do fieldwork?

What is the purpose of fieldwork?

Fieldwork is gathering information from a real environment, rather than from a laboratory or classroom. Fieldwork always starts with a **hypothesis** or enquiry question, which is the question the geographer is trying to answer.

Fieldwork then involves collecting, recording and analysing **data** in order to reach a **conclusion**. Fieldwork allows geographers to discover and learn new things. Fieldwork also helps geographers understand more about what they have learnt in the classroom or in books.

1. What **four** things does fieldwork involve? Write your answers.
   a. _____
   b. _____
   c. _____
   d. _____

2. Why do you think an enquiry question or hypothesis is important? Write your answer.

_____

_____

_____

_____

_____

_____

3. Match the field researchers with the way that their **research** may help people. Draw lines between them.

Dr Bhaskar Vira

Researches how changing political views affect the environment. Focuses on India and looks at the hidden costs of economic and political changes.

Dr Amy Donovan

Conducts fieldwork on active volcanoes. Researches ways to make faster and more informed decisions about what to do before an eruption happens. Carries out fieldwork all over the world.

Dr Helen Bennion

Carries out fieldwork in China focusing on how aquatic (water) ecosystems are affected by environmental change and how they can be protected.

Dr Rodrigo Hidalgo

Conducts fieldwork in Chile on the destruction of wetland habitats for building houses and transport networks. Main enquiry question is 'What takes priority: wetland ecosystems or improvements in human quality of life?'

Dr David Nally

Researches what hunger means for different people and how to ensure equal access to healthy food for everyone.

Professor Klaus-John Dodds

Carries out research on the Arctic and Greenland. Focuses on how these regions are being threatened by climate change.

Helping people to understand climate change

Keeping people safe from volcanoes

Helping politicians make decisions

Finding ways to stop people going hungry

Helping people to preserve important ecosystems

Helping people make decisions about where to build

Maps

Geographers can gain a better understanding of a place by studying a map. Maps record detailed information, and when geographers combine using maps with other fieldwork tools, they can learn a lot about an area.

There are many different types of maps. For example, street maps show you and place names, places of worship, schools and hospitals, but a topographic map will tell you about the height and shape of the land. Political maps show the boundaries of each country, and climate maps show patterns in temperature and rainfall. There are also maps that focus on particular subjects, for example natural resources, so a map can show you where you would find gold deposits or oil reserves.

4. What are four different types of maps? Write your answers.

a. _____

b. _____

c. _____

d. _____

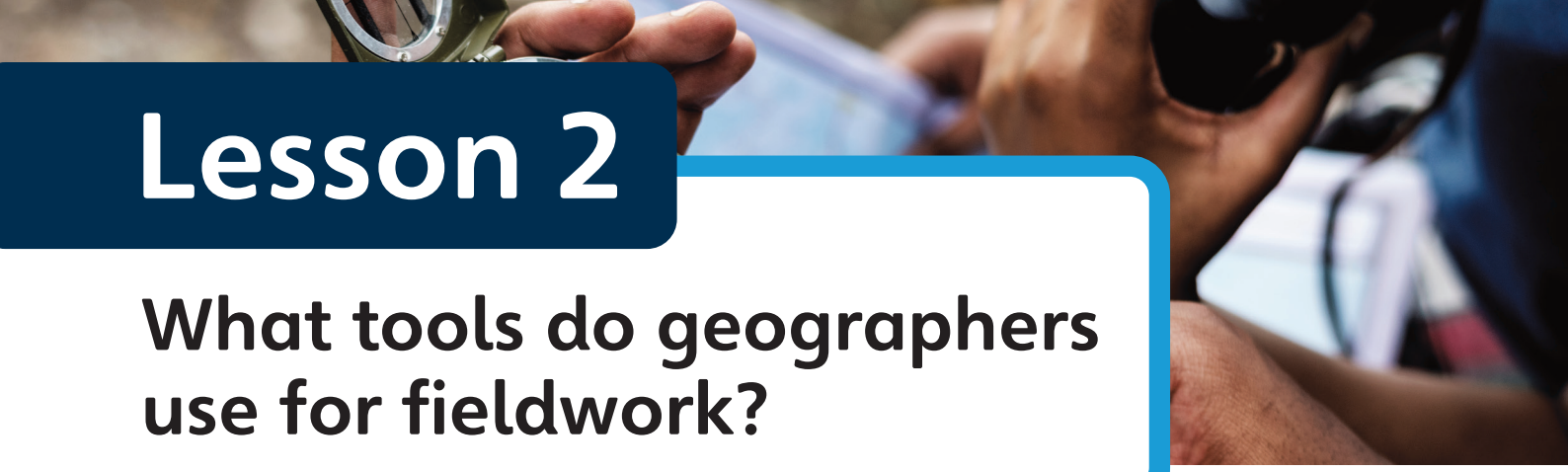
5. Find four-figure grid references for the following locations. Write your answers.

Don't forget: along the corridor (*x*-axis), then up the stairs (*y*-axis).

a. Hurworth 3 0 _ _

b. Over Dinsdale _ _ 1 0

c. Aislaby _ _ _ _



Lesson 2

What tools do geographers use for fieldwork?

Quiz

1. Name one thing that fieldwork involves. Write your answer.

2. Give one example of how fieldwork can help people. Write your answer.

3. What should all fieldwork start with? Write your answer.

4. What does a topographic map show? Write your answer.

5. What does a political map show? Tick the correct answer.
   a. patterns in rainfall ☐
   b. road and place names ☐
   c. where to find natural resources ☐
   d. country boundaries ☐

Field sketches

Field sketches can remind you about where you collected your data. You do not need to be an artist to make one. The main purpose of a sketch is to provide a starting point for more detailed **analysis** of the location you have visited. You can make a field sketch on a clipboard during fieldwork.

OASIS aids remembrance of the key points for field sketches:

O = Orientation: what direction is the sketch facing?

A = Annotations: add detailed labels to your sketch

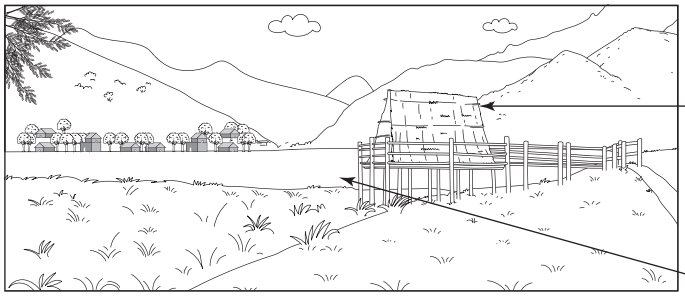
S = Scale: if possible, label the size of different parts of the sketch to make it more accurate

I = Information: where is it?

S = Sight: draw what you see

1. Which elements of OASIS does the field sketch below include and which are missing? Write your answer.

Trentino-Alto Adige, a region in North Italy



2. Draw a field sketch of the scene in the photograph below. Use OASIS to ensure you have included all the key elements, where possible.

Surveys and questionnaires

A survey is one way of collecting data during fieldwork. For example, a geographer might carry out a traffic survey by counting the number and type of vehicles in an area and comparing this information at different times of day. Alternatively, a geographer could carry out a biodiversity survey by counting the number of animal and plant species in a particular area. Surveys and questionnaires can both collect **quantitative data** (data in numbers, or with a numerical value).

A questionnaire is a list of questions that a geographer wants to ask different people. The questions are designed to help the researcher answer their enquiry question. For example, a geographer who is investigating the impact of tourism on a community might ask tourists questions about the length of their stay, how they travelled to the area and what activities they are doing on their trip. Questionnaires and field sketches can be used to collect **qualitative data** (data in words or images, usually containing views, opinions or feelings).

3. What is quantitative data? Write your answer.

4. What is qualitative data? Write your answer.

5. Which is the best geographical tool to use? Read the enquiry questions below. Tick the correct answer for each one.

	Survey	Questionnaire
How has my high street changed over the last five years?	☐	☐
How is climate change affecting the biodiversity (the number of different species of plants and animals) in this pond?	☐	☐
Is my street busier during the day or at night?	☐	☐
How far do people in my town commute to work?	☐	☐
When do most people prefer to go on holiday, and how do they travel?	☐	☐
How have the bird species in my local area changed over the last ten years?	☐	☐

Lesson 3

How do geographers collect and present data?

Quiz

1. Match the words to their definitions. Draw a line between them.

Survey	Data in words or images
Questionnaire	A way of collecting numerical data
Qualitative data	Data with a numerical (number) value
Quantitative data	A list of questions to ask people

2. What are three tools that geographers can use for fieldwork? Write your answers.

   a. _____

   b. _____

   c. _____

3. What is a hypothesis, or enquiry question for? Write your answer.

_____

4. In what order should you write a four-figure grid reference? Number the steps below.

   ___ *x*-axis (horizontal) ___ *y*-axis (vertical)

5. What might a biodiversity survey involve? Write your answer.

_____

1. Fill in this example survey.

Tally or tick the responses to your survey as you go. Add up the totals at the end to find out how most pupils get to school.

Date:

Location:

Enquiry question: What forms of transport do pupils use to get to school?		
Type of transport	**Tally**	**Total**
On foot		
Bicycle		
Scooter		
Car		
Bus		
Train		
Tram		
Other		

2. Fill in this example questionnaire.

Tally or tick a, b, c, or d for each statement to show what each person you speak to thinks. Add up the totals at the end to see what most people think about each statement.

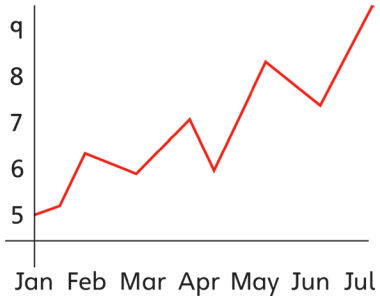
Date:

Location:

Enquiry question: How could our school become more environmentally friendly?			
Statement		**Tally**	**Total**
The school is environmentally friendly.	a. strongly agree		
	b. agree		
	c. disagree		
	d. strongly disagree		
The school uses a lot of environmentally friendly technology, such as energy-efficient light bulbs.	a. strongly agree		
	b. agree		
	c. disagree		
	d. strongly disagree		
The school could easily become more environmentally friendly.	a. strongly agree		
	b. agree		
	c. disagree		
	d. strongly disagree		
The best way for the school to become more environmentally friendly would be …	a. recycling more.		
	b. turning off lights and projectors.		
	c. wasting less food.		
	d. wasting less water.		

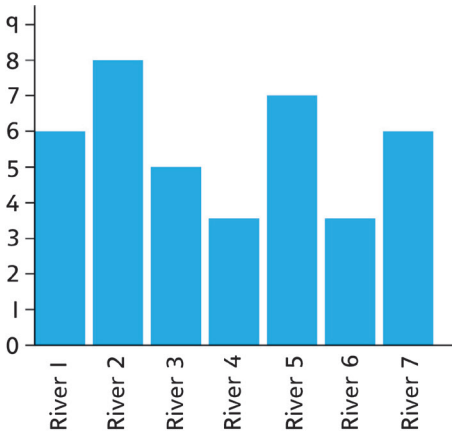
3. Match each type of graph to the description of how it is used. Draw lines between them.

Line graph



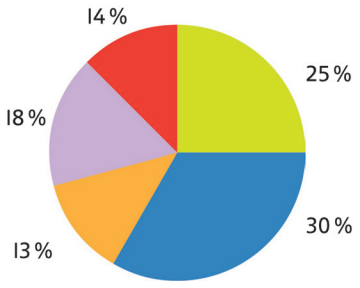
To show proportions. Data must be converted into percentages and then into proportions of 360 degrees. For example: the responses to a question in a questionnaire.

Bar graph



To show the relationship between two sets of data. For example: the price of houses in an area over time.

Pie chart



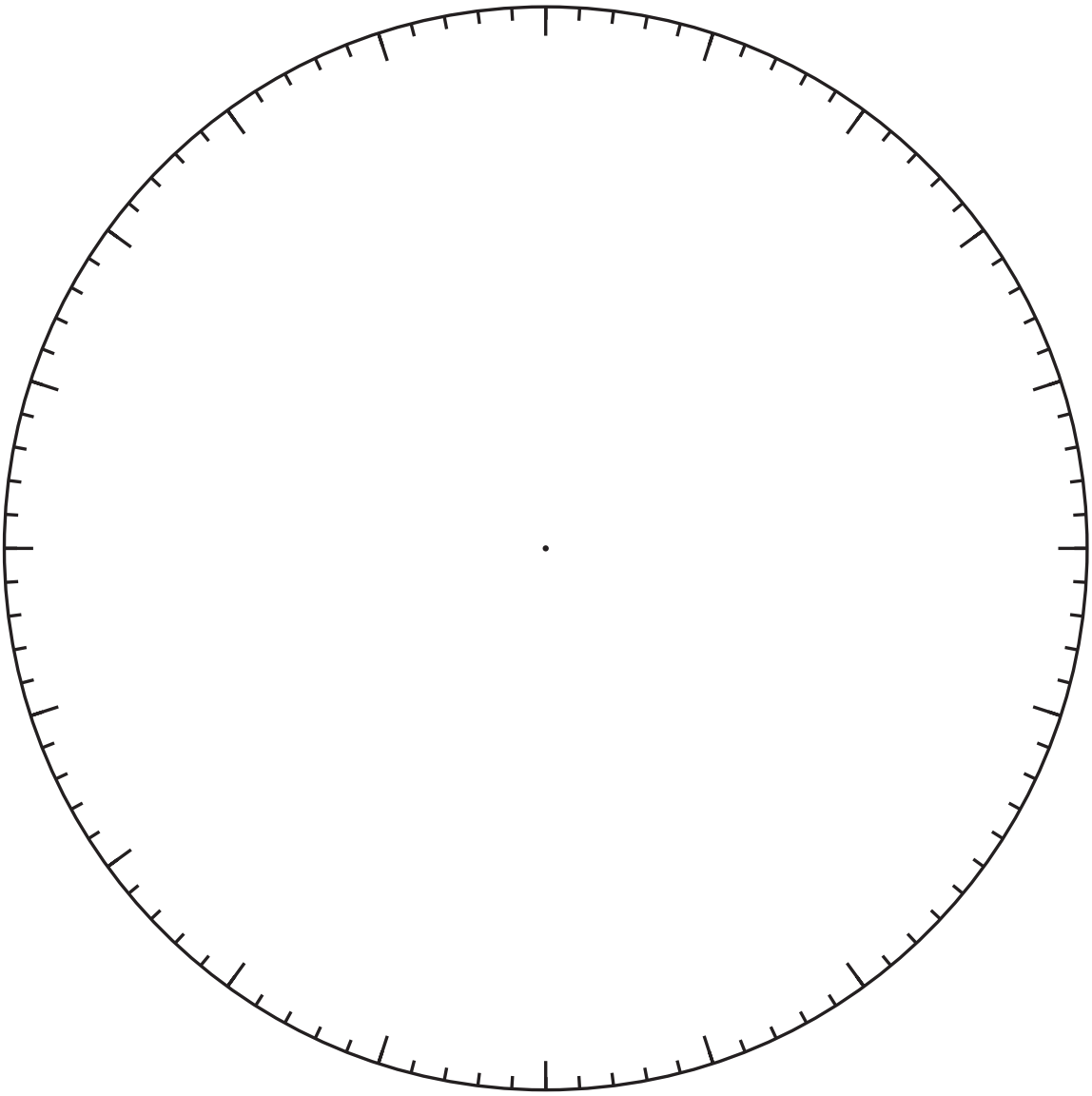
To show data that is counting something, often in different categories. For example: the responses to a questionnaire or an environmental quality survey.

Extend and stretch

4. Use the graph templates to plot the data you collected in tasks 1 and 2.

a. Pie chart

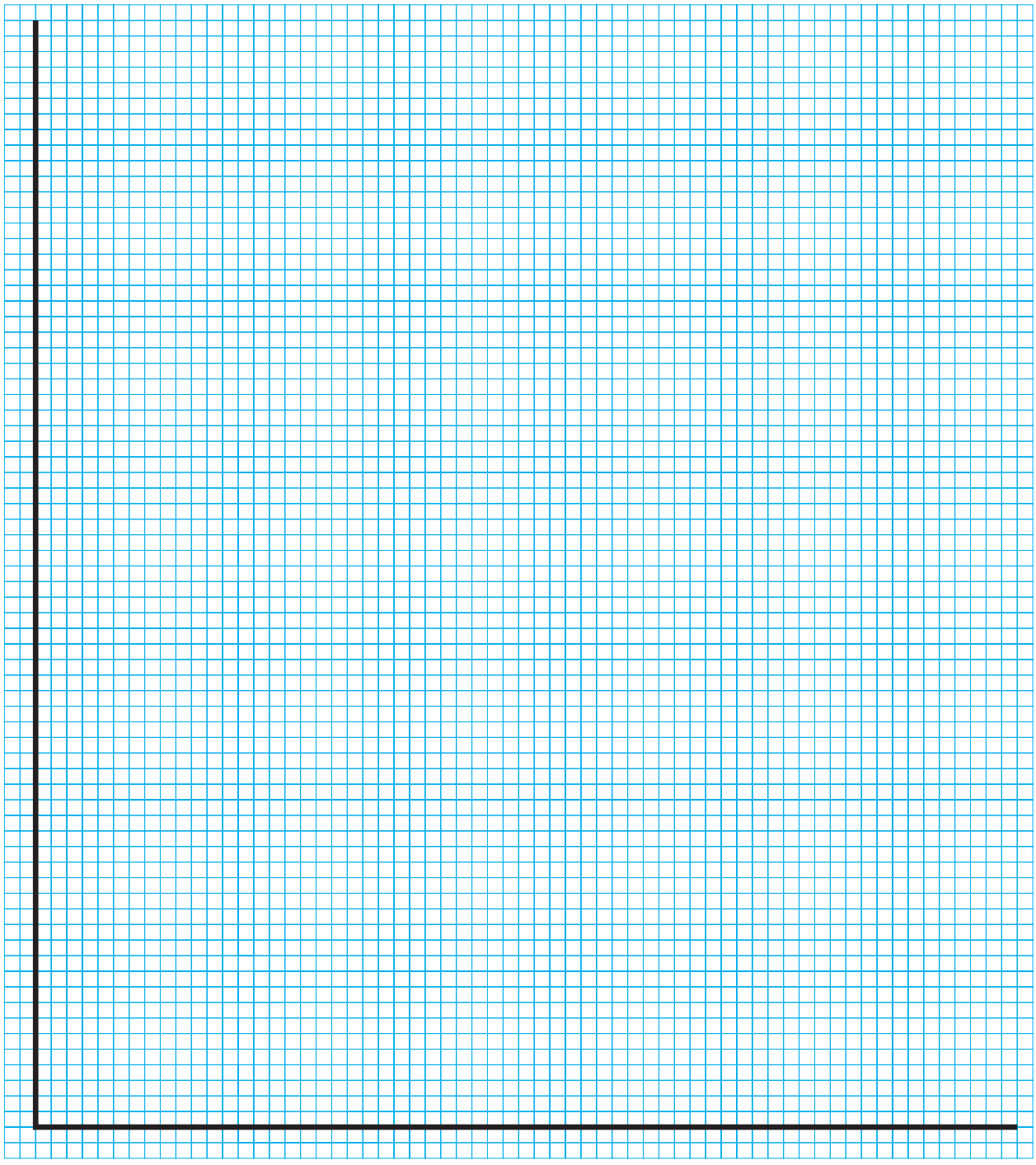
Don't forget: title, key



b. Bar graph

Don't forget: title, axis labels; axis titles

Tip: *x*-axis = category/question
y-axis = number value



Unit progress check in

1. What should all fieldwork begin with? Tick the correct answer.

data collection	☐	conclusion	☐
enquiry question	☐	field sketch	☐

2. State one thing that fieldwork involves. Write your answer.

_____

3. What is the purpose of fieldwork? Write your answer.

_____

_____

4. Write two things that street maps show.

a. _____

b. _____

5. Complete these sentences using a word from the box.

qualitative	quantitative

a. Surveys and questionnaires can both collect _____ data.

b. Field sketches and questionnaires can both collect _____ data.

6. What does OASIS stand for? Write your answer.

O = _____

A = _____

S = _____

I = _____

S = _____

Lesson 4

Designing tools for fieldwork

Quiz

1. What are three types of graphs that geographers can use? Write your answers.
   a. _____
   b. _____
   c. _____
2. What type of graph shows proportions? Write your answer.

   _____
3. What type of graph shows the relationship between two sets of data? Write your answer.

   _____
4. What type of graph shows different categories? Write your answer.

   _____
5. What is one tool you could use to collect qualitative data? Write your answer.

   _____

1. Read the examples, then write your own enquiry question.

How busy is my street?

How is my town used?

How could my school become more environmentally friendly?

How has my town changed over the last three years?

My enquiry question is: _____

_____

Fieldwork plan

2. Use this page to plan how you will carry out your fieldwork.

My enquiry question is: _____

_____.

The location and time of day for my fieldwork is: _____

_____.

Equipment I need: _____

_____

To be safe during my fieldwork, I need to _____

_____.

I will use a _____ to collect my data.
This is because _____

_____.

What I am trying to find out from my data: _____

_____.

To check that my data is accurate, I will _____

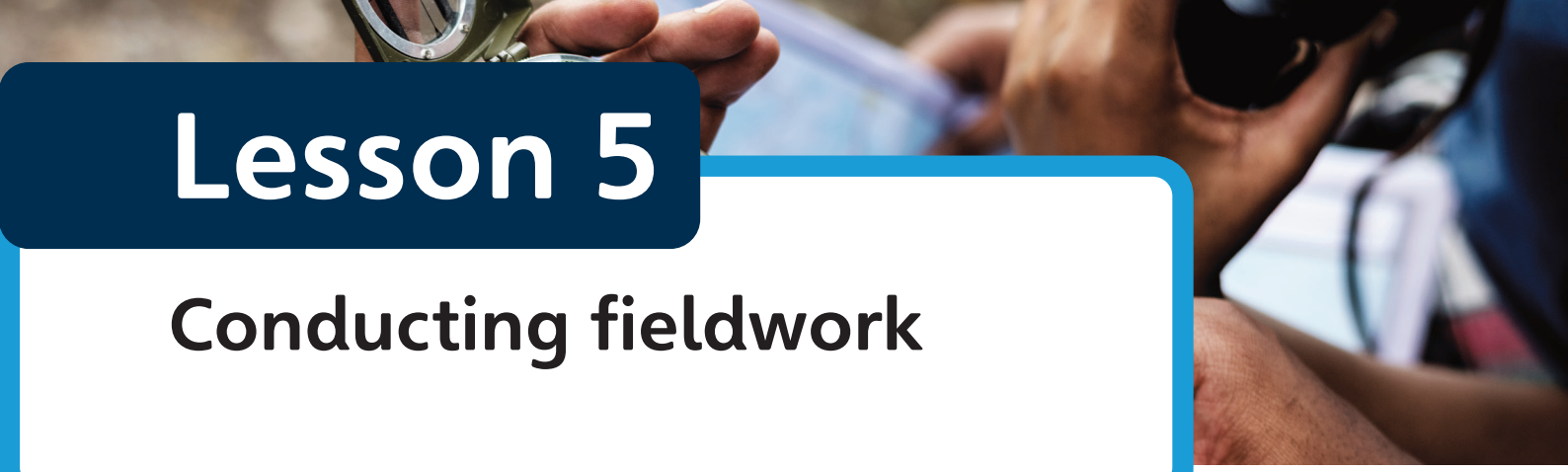
_____.

I will present my data using _____

_____.

This is because _____

_____.



Lesson 5

Conducting fieldwork

Quiz

1. Which tool will you use to collect your fieldwork data? Write your answer.

_____

2. How and why will you use your chosen tool? Write your answer.

_____

_____

3. Read the statement below. Tick the correct answer.

   In a four-figure grid reference, the *y*-axis value comes first, before the *x*-axis value.

   True ☐

   False ☐

4. What is the difference between qualitative data and quantitative data? Write your answer.

_____

_____

5. What are three things you should include on a bar graph? Write your answer.

   a. _____

   b. _____

   c. _____

Data analysis

Once geographers have collected and presented their data, they must process the data in order to use it to answer their enquiry question. Data analysis means looking at how your data will help you to answer your question.

Once you have analysed your data, you can write a conclusion, to sum up your research. Finally, you should write an **evaluation**, where you consider how you might do the fieldwork differently next time, to improve the reliability and **accuracy** of the data.

1. Read the text about what geographers do with their data. Write a definition for each of the key words.

a. analysis: _____

_____

b. conclusion: _____

_____

c evaluation: _____

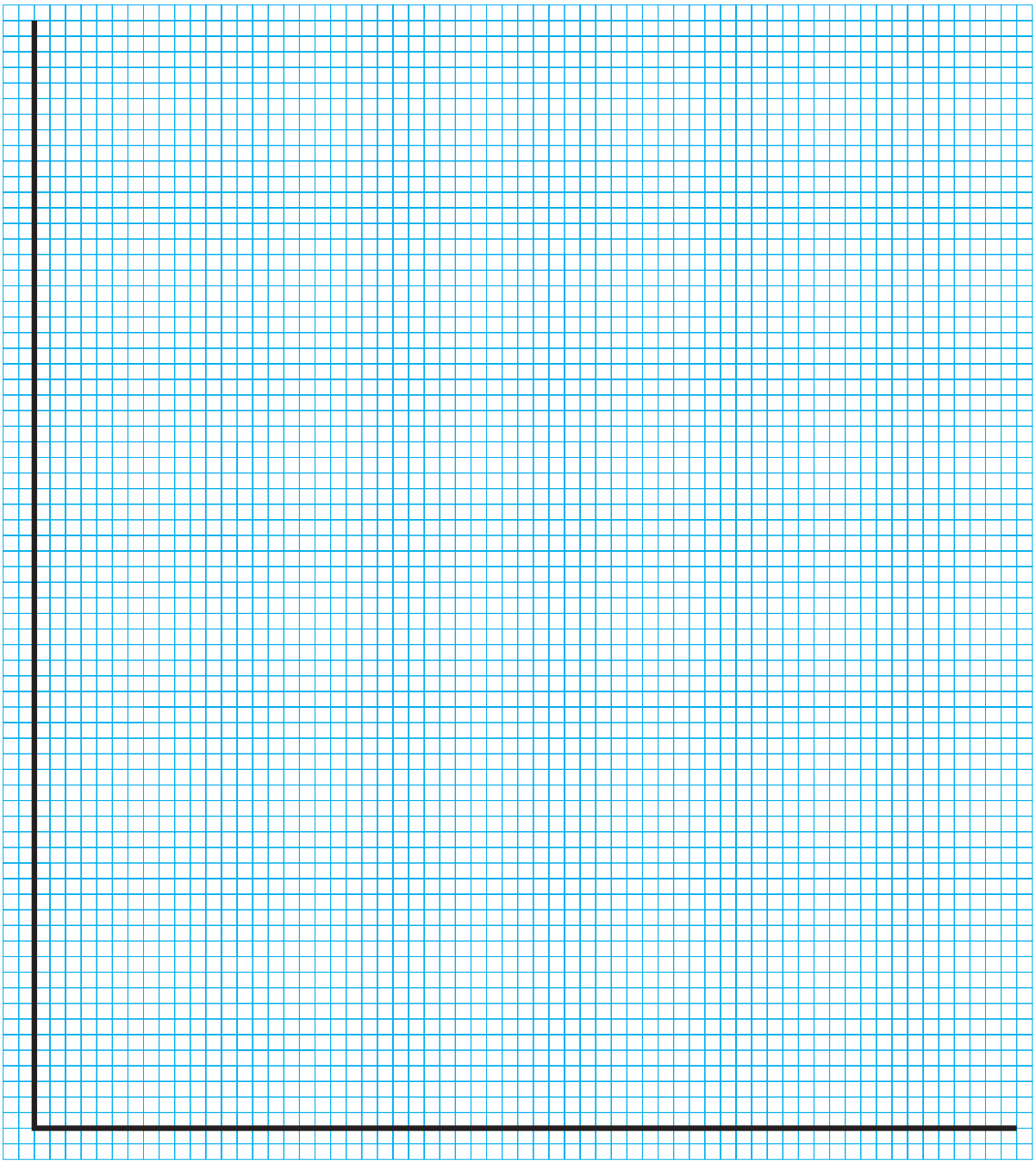
_____

Extend and stretch

Bar graph template

Don't forget: title, axis labels, axis titles

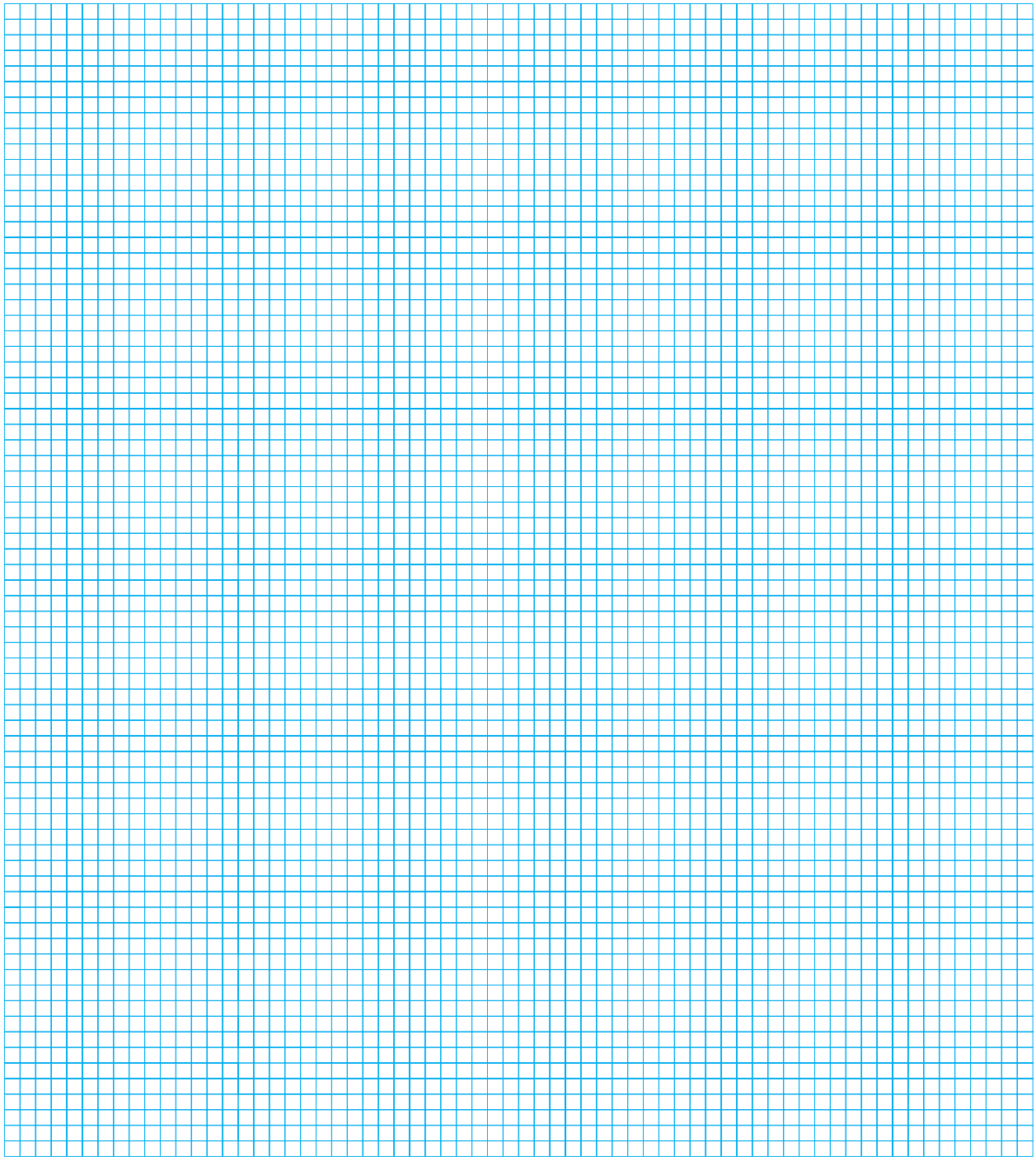
Tip: *x*-axis = category/question
y-axis = number value



Line graph template

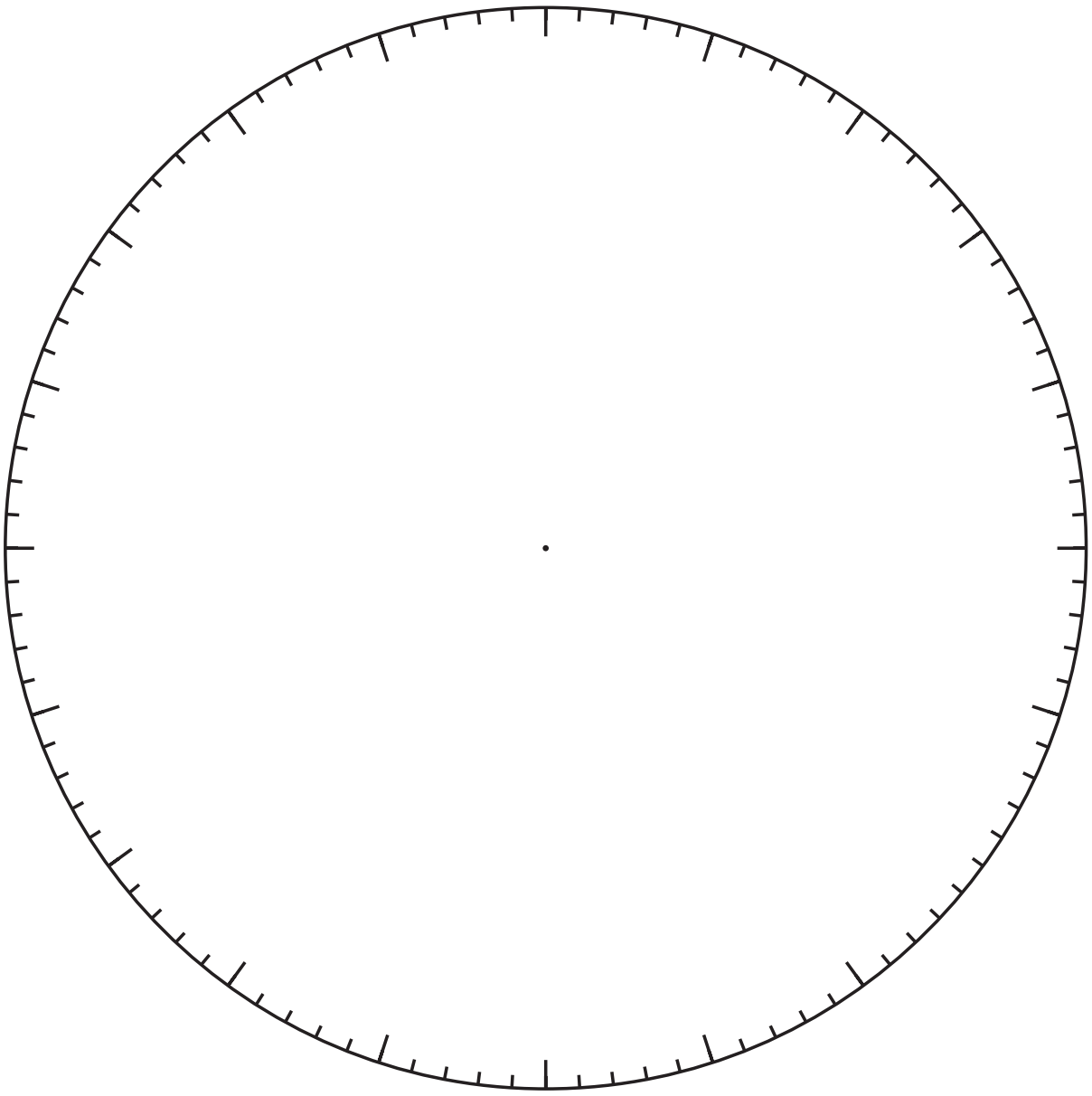
Don’t forget: title, axis labels, axis titles

Tip: *x*-axis = category/question
y-axis = number value



Pie chart template

Don’t forget: title, key



Lesson 6

Unit check out

I. Write an answer to this question: What does your fieldwork show?

Key words		
accuracy	line graph	questionnaire
bar graph	pie chart	survey
conclusion	qualitative	
evaluation	quantitative	

Title: What does your fieldwork show?	
Introduction • What is fieldwork? • Why do geographers carry out fieldwork? • What sort of fieldwork did you carry out?	
Paragraph 1 • How can fieldwork help people? • How will your fieldwork help people?	

Paragraph 2 • What do geographers always start with and why? • When you carried out your fieldwork, what was your enquiry question and why did you choose it?	
Paragraph 3 • How did you collect your data? Explain your methods in detail: What? When? How? Why?	
Extension • What would you do differently if you repeated the fieldwork?	
Conclusion • What must happen after data collection? • Why is this next stage so important? • How did you process your data and what did you find?	

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Local Fieldwork

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