

Lesson 8

Interpreting data

Objectives

Interpret diagrams and graphs, and draw simple conclusions (Y7)

Vocabulary

bar chart
mode, maximum

Resources

OHT 8.1

Objectives

Extract and interpret data in tables, graphs, charts and diagrams (Y6)

Interpret diagrams and graphs (including pie charts), and draw simple conclusions (Y7)

Vocabulary

pie chart

Resources

OHTs 8.2–8.4
Springboard 7 Unit 12
OHT 8.5 (Plenary)

By the end of the lesson

pupils should be able to:

- extract data from a variety of sources;
- interpret data and give a reason for any conclusion.

Framework supplement of examples pages 268–271

Level 4

Oral and mental starter

15 minutes

Display **OHT 8.1**.

Ask pupils to discuss the questions in pairs. Each pupil has to convince their partner that their answer is correct.

Allow pupils time and encourage them to check and reconsider their answers.

Distinguish between questions that require:

- reading information from the graph;
- deductions from the information;
- interpretation and explanation.

Main teaching

35 minutes

Display **OHT 8.2**.

Demonstrate how to find the distance from Hull to Exeter.

Ask pupils to answer the questions on the sheet and to compare their answers with their partner's.

Take feedback to ensure pupils can find the correct distances.

Model a written answer to the last part of the question.

Show **OHT 8.3**. Explain that it shows the number of different types of ticket sold.

Q How many different types of ticket are sold?

Ensure pupils understand that there are nine different types.

Q How many First-class saver tickets are sold?

Q How many return tickets are sold?

Q How many more Standard tickets than First-class tickets are sold?

Q Why do you think a lot of student tickets are sold?

Extend with further questions.

Show **OHT 8.4**.

Q Are there more men passengers than women passengers?

Q How many child passengers are there? What other information would we need to know to find the answer?

Q When is it better to use a pie chart than one of the other types of graph?

Explain your answer.

Consolidate using Springboard 7 Unit 12 pages 398–400.

Plenary

10 minutes

Display **OHT 8.5**.

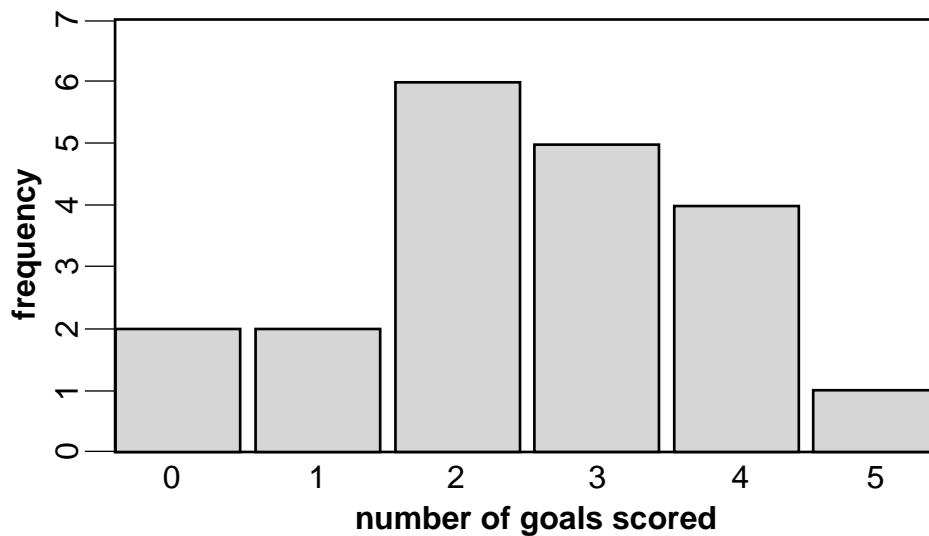
Ask pupils to discuss the six responses and decide whether they agree with them.

Take feedback, ensuring pupils give correct reasons for their comments.

Goals

Goals scored by Harriers

This bar chart shows the number of goals scored by Harriers in last season's matches.



- 1** What was the highest number of goals Harriers scored in a match?
- 2** How many matches in total did Harriers play?
- 3** In how many matches did Harriers score more than three goals?
- 4** What was the most common number of goals scored (mode)?
- 5** How likely are Harriers to score seven goals in a match when they play in the same league this season?

Distances

This table shows the distances between towns.

Distances in miles

Hull				
Exeter	305			
Bangor	199	289		
Dover	261	248	331	
	Hull	Exeter	Bangor	Dover

Which **two** towns are the **shortest distance** from each other?

Mrs Davis drove from Bangor to Exeter.

What is the distance between **Bangor** and **Exeter**?

Mrs Davis then drove from Exeter to Dover.

What is the distance between **Exeter** and **Dover**?

How far did Mrs Davis drive altogether?

Why is this answer different from the distance from Bangor to Dover in the table?

Train tickets

The ticket office at Exeter station keeps a record of the type of ticket it sells.

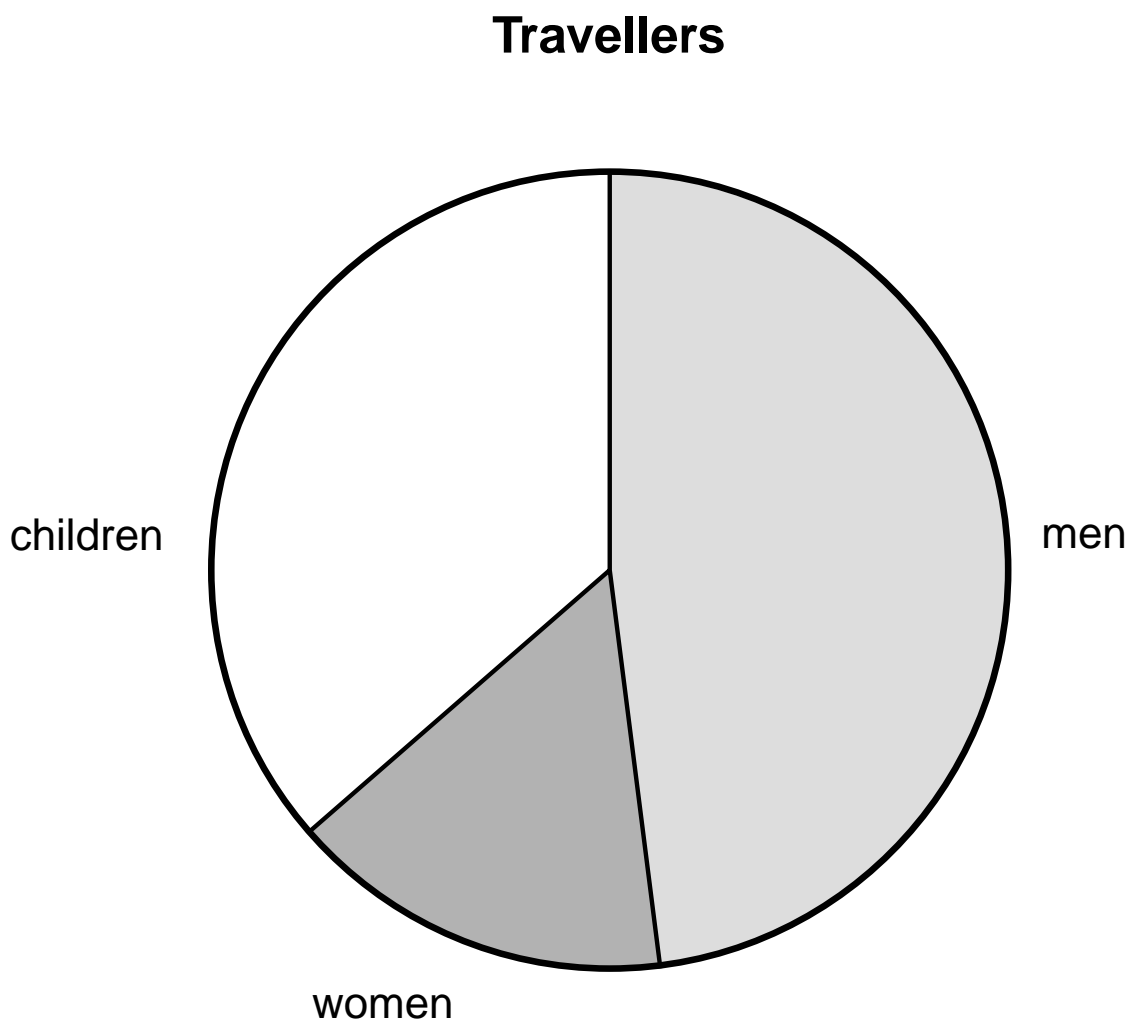
The tickets sold on a Friday in December are shown in the table below.

	First class	Standard	Student
Single	7	19	1
Return	12	24	53
Saver	11	37	36

Travellers

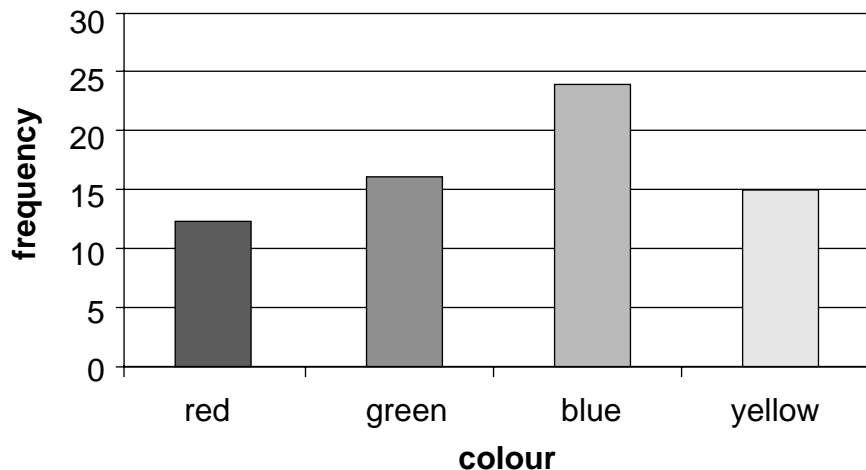
The ticket office also records whether each traveller is a man, a woman or a child.

The results are shown in the pie chart.



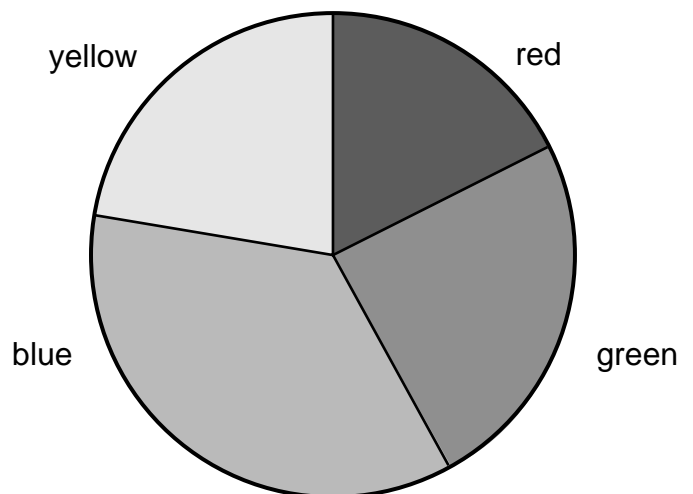
Favourite colour

John and Sandip collected some data on favourite colour from a group of children.



John's bar chart

Sandip's pie chart



Children's comments

I think the pie chart is best as you can easily see which is the most popular.

I think the bar chart is better as you can compare easily.

About half of the children chose blue.

Yellow and green are about the same in popularity.

I could work out how many children were asked from the pie chart.

Red is the least popular colour and it is easy to see from both diagrams.