



Maths Frequency tables and bar charts

Objectives

- read about frequency tables and bar charts.
- make a frequency table and bar chart.

Warm-up

- Books closed. Write _ _ _ _ _ on the board.
- Elicit letters from students until the word *information* has been completed.
- Ask: *What is 'information'?* Elicit answers and write them on the board, e.g. *facts about something or someone*.

- 1
 - Ask students to open their books at page 122 and explain that they are going to read about how we can organise information graphically.
 - Refer them to the picture and then ask them to read the explanations of *data total* and *frequency*. Point out that the *data total* refers to the total number of sports represented in the picture by the different icons, whereas *frequency* refers to how many icons there are for each sport, with the icons representing the number of students who like the sport in question.
 - Read out the two questions.
 - Ask students to work in pairs to answer them.
 - Check answers.

Answers

- 1 The data total for Class 1B is 30.
- 2 The frequency of tennis is 2.

- 2
 - Point out the examples in the table (*football* and *tennis*). Ask students to check with the picture in Exercise 1 that these figures are correct.
 - Ask students to work in pairs to complete the table with the frequency of each sport.
 - Check answers.

Answers

cycling – 6 rollerblading – 4 basketball – 6
swimming – 3 total – 30

Optional activity

- Do a survey to find out the class's favourite sports.
- Students can then work in pairs to make a frequency table (using the example in Exercise 2 to help them) showing the results of the survey.
- Pair **stronger students** with **weaker students** to do this activity.

- 3
 - Explain that a bar chart is a graph that uses parallel bars of differing lengths to represent information.
 - You may want to play students this song to help them understand the idea of a bar chart: <http://www.bbc.co.uk/learningzone/clips/bar-graphs-explained-through-a-song-special-chart-on-my-bedroom-wall/2941.html>
 - Point out that the information in the bar chart in Exercise 3 is the same as that in the frequency table in Exercise 2.

- Teach the meaning of *horizontal* and *vertical* by drawing a right-angled triangle on the board and labelling it. Explain that the line that points up is the *vertical* line while the line that is level and flat is the *horizontal* line.
- Ask students to work in pairs to answer the questions.
- Check answers.

Answers

- 1 The frequency of *basketball* is wrong.
- 2 X is a horizontal line. Y is a vertical line.

Optional activity

- Students can then work in pairs to make a bar chart showing the results of the survey into the class's favourite sports.
- Encourage them to use the example in Exercise 3 to help them. Pair **stronger students** with **weaker students** to do this activity.

Your turn

- 4
 - Put students into pairs.
 - Write the following question on the board: *Where are you going on your summer holidays?*
 - Ask students to stand up, walk around the class and ask each other about where there are going on their summer holidays.
 - Give students ten minutes to make a frequency table and bar chart to graphically represent the information they collect.
 - Monitor while students do this. Help as necessary.

Optional activity

- Ask students to find another way of presenting the information they gathered about summer holidays, such as a pie chart.
- Students could make their pie charts using Microsoft Excel, OpenOffice Calc or one of the following websites: www.meta-chart.com/pie or <https://imgflip.com/piemaker>



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8.4 Holiday in Australia

See page 139 for activities you can do with this video.



For homework, ask students to find out the average daily temperature in a capital city of their choice in July last year. Students can then make a frequency table to show their findings.