



HAPPY BIRTHDAY



Class 4 have made a bar chart showing the months of their birthdays.

Which is the month with no birthdays?

Which months have four birthdays?

How many children are in the class?

Make a birthday bar chart for your class. Everyone should write their name or initials in one of the boxes in the column for their birth month in this chart.

Our Birthday Months

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| January | February | March | April | May | June | July | August | September | October | November | December |

Help

The teacher and other learners can help everyone in the class to find a box in which to write their name.

Extension

You could collect some other data and draw a bar chart of your data. Perhaps ask the other learners in your class what is their favourite food or favourite colour.

NOTES FOR TEACHERS

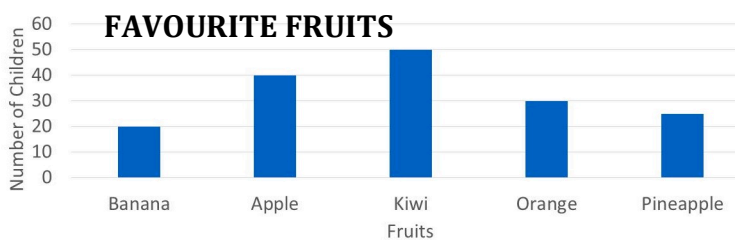
SOLUTION

In the chart for Class 4 July has no birthdays.
March, April, September and November have 4 birthdays.
There are 30 children in the class.

Diagnostic Assessment

 This should take about 5–10 minutes.

1. Write the question on the board, say to the class:
“Put up 1 finger if you think the answer is A, 2 fingers for B, 3 fingers for C and 4 fingers for D”.
2. Notice how the learners responded. Ask a learner who gave answer A to explain why he or she gave that answer and DO NOT say whether it is right or wrong but simply thank the learner for giving the answer.
3. Then do the same for answers B, C and D. Try to make sure that learners listen to these reasons and try to decide if their own answer was right or wrong.
4. Ask the class again to vote for the right answer by putting up 1, 2, 3 or 4 fingers. Notice if there is a change and who gave right and wrong answers. It is important for learners to explain the reason for their answer otherwise many learners will just make a guess.
5. If the concept is needed for the lesson to follow, explain the right answer or give a remedial task.



Which of the following statements is true?

- A** Pineapple is the most popular fruit
- B** Only apple is liked more than oranges
- C** Kiwi is the least popular fruit
- D** Apple is the second most popular fruit

D. is the correct answer.

Common Misconceptions

Learners who gave answers **A.**, **B.** and **D.** appear not to have understood the question. Could this be a language issue?

<https://diagnosticquestions.com>

Why do this activity?

This is a good activity for introducing learners to drawing bar charts to represent data. Without any instruction from the teacher learners should be able to read the required information for themselves from the graph so learning from experience.

Intended learning outcomes

Understanding of how to read and interpret data from a bar chart.
Practice in collecting data and drawing a bar chart.

Generic competences

In doing this activity students will have an opportunity to:

1. apply knowledge and skills
2. develop the skill of interpreting and creating visual images to represent concepts and situations
3. select, organise, analyse, and interpret information.

Suggestions for teaching

You could show this chart to the learners and ask them questions about it.

Then print the template for the Birthday Bar Chart (see page 4) and get each member of the class to write their initials in a box for their birth month.

Then show the birthday chart for your class and ask some more questions.



Key questions

- Is there a month when there are the most birthdays (the mode)
- What differences do you notice between the chart given for Class 4 and our birthdays chart?

Note: The Grades or School Years specified on the AIMING HIGH Website correspond to Grades 4 to 12 in South Africa and the USA, to Years 4 to 12 in the UK and up to Secondary 5 in East Africa. New material will be added for Secondary 6.

For resources for teaching A level mathematics see <https://nrich.maths.org/12339>

Note: The mathematics taught in Year 13 (UK) and Secondary 6 (East Africa) is **beyond** the school curriculum for Grade 12 SA.

| | Lower Primary or Foundation Phase Age 5 to 9 | Upper Primary Age 9 to 11 | Lower Secondary Age 11 to 14 | Upper Secondary Age 15+ |
|--------------|--|------------------------------|---------------------------------|----------------------------|
| South Africa | Grades R and 1 to 3 | Grades 4 to 6 | Grades 7 to 9 | Grades 10 to 12 |
| USA | Kindergarten and G1 to 3 | Grades 4 to 6 | Grades 7 to 9 | Grades 10 to 12 |
| UK | Reception and Years 1 to 3 | Years 4 to 6 | Years 7 to 9 | Years 10 to 13 |
| East Africa | Nursery and Primary 1 to 3 | Primary 4 to 6 | Secondary 1 to 3 | Secondary 4 to 6 |

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