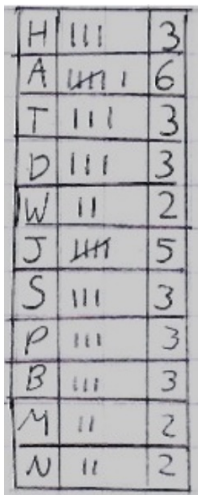
AFRICAN INSTITUTE FOR MATHEMATICAL SCIENCES
SCHOOLS ENRICHMENT CENTRE
TEACHER NETWORK

Title: OUR NAMES (Grades 6 to 8)

OUR NAMES



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M	II	2
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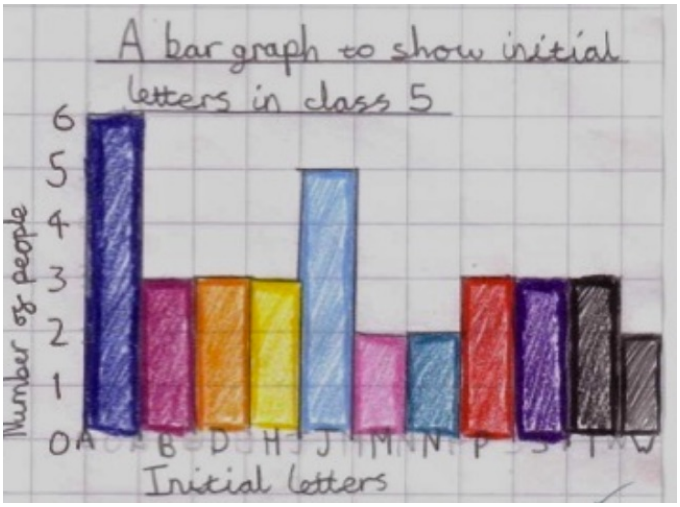

Make a list of the first names of all the learners in your class. What do you notice about the first letters of the names?

Make a tally chart, and then draw a bar graph for the number of names in your class for each first letter. The diagram shows a tally chart and bar graph done by Adam and Mary for their class. Adam's name had the most common initial letter and Mary's the least common. What is similar and what is different about the data for your class and for theirs?

Can you represent your data in a different sort of graph?

What other questions would you like to ask about names? You might ask if the first letters of surnames have a different distribution from the first letters of first names. Or you might ask what are the most common names in your school. Or you might ask if names have changed much in the last 20 years. Are the names of the learners in your class similar or different to the names of the older members of their families?

Collect some data about names. Draw some graphs and report on what you have found out.

Notes for teachers

Why do this problem?

This activity involves data that learners will relate to easily and it can be used to illustrate various methods of recording data. The questions require learners to interpret the data presented, as well as to re-present the data in different ways themselves. The learners can be encouraged to ask their own questions about names, to conduct a survey and to represent, analyse and report on their data. You could also encourage learners to look at ways to present data more critically by discussing which method they think is best and why.

Possible approach

The focus of this particular task is not on data collection itself, but you may wish to tackle this problem once the children have had some experience of creating their own tally charts, frequency tables and bar charts. Alternatively, the activity could be a vehicle for introducing some different ways of representing data that learners may not have come across before.

Tell the 'story' of how Class 5 collected data about their class and did the tally chart and bar graph shown above. Work as a class to collect the data for your class. Invite learners to work in pairs. Can they representing the data from their own class in a better way?

You might plan a short lesson just about this one set of data or you might plan for the learners to ask further questions and to conduct their own surveys, collect their own data, and represent, analyse and report on their data.

Allow pairs to choose the resources they need to create the different representations, although having squared paper easily available is likely to be helpful.

In a plenary, initiate discussion about how they knew which member of the class was away that day and encourage them to offer opinions on which of their representations is best for this data. Listen out for those that give clear explanations for their choices.

Key questions

What does this chart/table tell you?
Tell me about the way you're creating your chart/table?
What can you tell from the tally/table/graph you have made?
Can you include people who were away from school that day?

Possible extension

The activity https://aiminghigh.aimssec.ac.za/grades-7-to-9-travel-to-school/ offers more opportunities for data analysis, and goes on to invite data collection and further analysis.

Possible support

By collecting the data as a class about the initial letter of the learner's first names you can either introduce the method of using tally charts or review it. Make a chart on the board and, if you have time, get each learner to come up and write in the tally mark for their own name. Then ask all the learners to copy the chart and record the frequencies. Check that everyone understands how to do this. If the learners work in pairs or small groups to draw the charts they can help each other.