TRAVEL TO SCHOOL

The table shows data about how learners in the UK travel to school.

Travel to school Percentage Table

All Data	Percentage of all pupils	Percentage of primary school pupils	Percentage of secondary school pupils
Total	100.00	100.00	100.00
Walk	37.90	43.31	33.60
Bus	22.55	8.05	34.10
Car	34.87	46.72	25.43
Cycle	1.89	1.17	2.47
Train/Tube/Tram/Metro	1.79	0.21	3.06
Other	0.99	0.54	1.35

Excludes non responses

Which is the most popular way of getting to school for primary pupils? How about for secondary pupils?

Can you think of any reasons why these might be different?

Which is the most common way of travelling to school overall?

Can you explain why this answer is different again?

What do you think the "Other" category means?

Conduct your own survey on how everyone gets to your school, perhaps in your class or year group. You might like to ask other questions like "how long does it take you to get to school?" and "how far is it from where you live to the school?" Present your results in tables, charts or graphs.

Compare your findings to those in the table (you might want to look just at the primary or secondary data). How are your results different? Are there any similarities?

HELP

'Most popular' means the transport used most by that group. Look carefully at the table. Which of the columns gives data for primary pupils? What is the highest percentage given in that column?

Do the same for the data for secondary pupils.

NEXT

You might conduct a survey in your class of the different ways learners travel to school and compare it with the data given here.

Notes for teachers

Solution

The most popular way of primary school pupils getting to school is by car and the bus for secondary pupils. prefer the bus.

These may be different because there are more primary schools and so families are more likely to live near a primary school and will be able to walk there. There aren't as many secondary schools, so children will need either a bus or car to get to school. The most common way to get to school overall is walking.

The other category means other modes of transport that are not listed for example by taxis, rollerblades or boats.

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.

The pie chart shows the colours of 20 balls. How many blue balls are there?

A. 5   B. 72   C. 6   D. 4

D. is the correct answer.
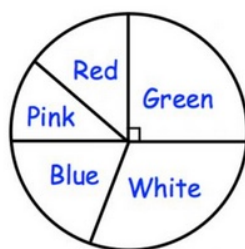
Common Misconceptions

A. No, learners giving this answer have failed to see that the number of green balls must be 5 as it is marked as a right angle.

B. Here the learner may be guessing the angle in the pie chart.

C. These learners have very little understanding of pie charts, clearly less that a quarter of the total are blue.

https://diagnosticquestions.com

Why do this activity?

This activity is a good way for learners to interrogate data and think about possible reasons for trends, rather than just accepting conclusions without digging deeper. This data relates to the experience of getting to school, an experience that all schoolchildren everywhere have in common. They have an opportunity not just to interpret the given data, but to collect data about their own experience and that of their schoolmates, and for comparing sets of data.

Learning objectives
In doing this activity students will have an opportunity to practice reading and interpreting statistical data.

Generic competences
In doing this activity students will have an opportunity to interpret and analyse statistical data.

Possible approach
You could start the lesson by looking at the table as a whole class and encourage learners to discuss the questions in groups. Then they could conduct their own survey. Encourage presentation of their findings in a variety of different ways so that you can build a display in the classroom.

Once their results are displayed (perhaps several days later), you can gather the class as a whole to look at them collectively. By printing off a copy of the table in the problem as well, you could add comments from the children to the display as they make comparisons.

Key questions
How will you collect your own data?
Will you ask everyone individually?
How will you record what they say?
How many people are you going to ask?
How will you work out the percentage of people using each method of travel?

Follow up
Learners could be encouraged to interrogate other surveys in newspapers or magazines in a similar way. You could collect some suitable articles for them to look at and challenge them to ask questions about the data presented.

As examples on which learners might model the presentation of the results of their own surveys, you might like to use one or two of the charts and graphs in the UK government Department of Transport's
National Travel Survey 2014

As a stimulus for talking about the lives of children in other countries you might like to show the class this article about some surprising journeys to school.
http://www.boredpanda.com/dangerous-journey-to-school/

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.
Note: The mathematics taught in Year 13 (UK) and Secondary 6 (East Africa) is **not** included in 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