

Max the Monkey's Statistics Challenge

Learning objective: To understand, interpret and present data using bar charts, pictograms and tables, and to solve comparison, sum and difference problems using information presented in these forms.

Read each flashcard carefully. Max the Monkey has hidden the answers on the back of each card. Test your knowledge of statistics to help Max solve his math puzzles!

What is 'data'?

Data is a collection of facts, such as numbers, measurements, or observations, gathered together for analysis.

In a tally chart, what does a fifth mark across four vertical lines represent?

It represents a group of five (often shown as a diagonal line through the first four).

What is the 'scale' on a bar chart?

The scale is the set of numbers on the axis that shows the intervals or increments used to measure the data.

If a pictogram key shows one apple symbol equals 2 pieces of fruit, what do 3 and a half apple symbols represent?

7 pieces of fruit ($3 \times 2 = 6$, plus half an apple which is 1).

What is the difference between 'discrete data' and continuous data?

Discrete data can only take specific values (like counting people or pets), while continuous data can be measured (like height or weight).

Max has £5.00. He buys 3 apples at 50p each and 2 bananas at 75p each. How much money does he have left?

£2.00. ($3 \times 50\text{p} = £1.50$; $2 \times 75\text{p} = £1.50$; Total spent = £3.00. $£5.00 - £3.00 = £2.00$).

How do you calculate the 'total' or 'sum' from a frequency table?

You add together all the frequencies of the different categories.

True or False: The bars on a bar chart should always be the same width.

True.

Why do we use a 'key' in a pictogram?

A key explains what each symbol represents so we can read the data correctly.

If a bar chart shows 10 children like red, 15 like blue, and 5 like green, what is the total number of children surveyed?

30 children.