

Oranges or bananas

Approach: One to one

Level: Year 4 and year 8

Resources: Two charts: each with 12 oranges and 24 bananas, but arranged differently;
2 dice: one numbered 1-6, one labelled A-E



Questions/instructions

% responses
year 4 year 8

Show chart 1 and 2 dice.

A monkey gets his lunch by throwing these two dice, then the zookeeper gives him the lunch shown on the chart.

1. Do you think that the monkey has more chance of getting an orange or a banana for lunch?

banana 94 98

Tell me why you think that.

more bananas than oranges on chart 64 92

You can see letters along the top of the chart, and numbers down the side. To find out what monkey gets for lunch, we throw the dice. One tells the letter, and the other tells the number. We'll have a practice go by throwing the dice and seeing what monkey would get.

Student has one practice throw and locates the appropriate lunch item on the chart. If the student has difficulty locating the fruit, give guidance.

Hand student the recording book open at the weekly menu plan.

Now I want you to throw the dice for each day of the week — and write down an “o” for orange, or “b” for banana on this sheet, to show what food monkey gets each day.

When the student has completed the 7 throws...

2. Now that you've tried choosing lunches for one week, do you think that the monkey has more chance of getting an orange or a banana for lunch? banana 83 83

Tell me why you think that.

referred to chart (population) 28 37

referred to sample favouring bananas 41 41

referred to sample favouring oranges 9 12

Show chart 2.

3. Now look at this chart. Do you think monkey has more chance of getting an orange or a banana for lunch? banana 88 89

Tell me why you think that. more bananas than oranges on chart 74 85

4. What are the chances of the monkey getting an orange? one third (or similar) 3 40

Why do you think that? less than one half 6 18

other 91 42

Commentary

Students succeeded well with the first question, although many Year 4 students made their choice “because monkeys like bananas”. Taking a sample tended to divert students' attention from the proportions on the chart, so that many made their judgements in question 2 on the basis of the sampling results. Very few year 4 students could deal with the idea of probability.