Activity type

Whole class

Learning objective

Handling data: describe and predict outcomes from data using the language of chance or likelihood

Probability dice

What to do

- Open the 'dice 1–6' screen. 'Roll' a dice by dragging the numbered dice onto the working area and clicking on it.
- Provide the children with copies of photocopiable page 16 and ask them to list the numbers 1 to 6 in the first column on the top table. Roll the dice on screen and ask them to begin a tally of how many times each number is rolled. Ask the children the key questions below before rolling the dice about 20 times.
- Explain to the children that, although after a number of throws (100 or more) the outcome for any number should be approximately equally likely, after only 20 throws the prediction (and outcome) might be different for each number.
- Discuss the key questions with the children.

Key questions

- *After 20 throws, what number would you predict as the most likely outcome?*
- *After 20 throws, what number would you predict as the least likely outcome?*
- *On this evidence, can you arrange the likelihood of each number occurring, starting with the least likely?*

Assessment for learning

Can the children describe and predict outcomes using the language of chance or likelihood?

Activity type

Starter

Learning objective

Calculating: calculate mentally with integers

Spinning calculations

What to do

- Select the 'spinners 1–12' screen.
- Start by dragging the triangular spinner to the working area and ask the children to mentally add the three digits displayed on the spinner. Confirm the correct answer.
- Now drag another triangular spinner to the board to show a different set of numbers. Again, ask the children to add the three numbers mentally.
- Next, drag two or more spinners onto the board and challenge the children to add the numbers mentally.
- Continue this method using the square-, pentagon- and hexagon-shaped spinners (which makes the addition increasingly difficult to do mentally).
- In further sessions, introduce the four-operations dice and use this to decide whether you want the children to add, subtract, divide or multiply the numbers generated by the spinners. Also, click on 'make' to create some spinners using larger two-digit numbers.

Key questions

- *What do the numbers shown on each spinner add up to?*
- *Can you explain how you did the addition?*
- *Which numbers are the easiest to add first?* (For example, those that make, or are close to, 10.)

Assessment for learning

How easy do the children find it to add integers mentally?