

# Using a calculator

## Key learning

Use a calculator to solve problems, including those involving decimals; interpret the display correctly in the context of money and measurement.

### Check that your child can:

- use a calculator to add, subtract, multiply and divide numbers, including decimal numbers;
- read and explain the numbers on the display in the context of money or measures (for example, explain 5.5 as £5.50 or 5 metres and 50 centimetres).

## Reading the display

Enter on a calculator a number with one or two decimal places.

Pass it to your child and ask them to suggest what the number could represent as money or measures. For example:

54.04 could be £54 and 4p, or 54 metres and 4 centimetres.

Swap roles and try different numbers.

Try numbers with more than two decimal places.



## Notes for parents/carers

Using calculators helps children to learn more about how numbers work as well as performing calculations during problem-solving.

Estimating the answer first helps you to know if the calculator answer is likely to be right. Encourage your child to estimate roughly what size answer they expect, before using their calculator.

### Let's estimate and check...

Save some supermarket till receipts and fold them to hide the totals. Then both of you work out the approximate total cost. Work separately, jotting down the rough amounts you are adding up and the total. (For example, you might assume £3.61 is roughly £4.00 and £0.48 is about 50p.)

Compare your answers and how you worked them out. Check with the calculator. How far were you out? Who was closer? Would it help to do this in the shop?

For practice in using the calculator, ask your child to start with the total and work through the receipt, subtracting each price in turn. Do they get back to zero?

### Let's divide...

- If eggs cost £1.85 per half-dozen, how much does each egg cost?
- The calculator shows 0.308 333. What does that mean?

## A calculator game

**To play** you need basic calculators (remember that many mobile phones have calculators) and some sticky notes.

Write the digits 2, 3, 4, 5, 6 and a multiplication sign ( $\times$ ) on the sticky notes and arrange them to make a multiplication calculation such as:



Use your calculators to work out the answer to this calculation.

By rearranging the numbers and deciding where to put the  $\times$  sign, see if you can produce a calculation with a bigger answer.

**The object of the game** is to see who can find the biggest possible answer, each time using the same five digits (in any order) and  $\times$ .

**Try the same game with a different set of digits, or** use the same set of digits with division to find who can get the smallest answer.

## 'Let's talk about maths'

Take every opportunity to use calculators in the home, to solve practical problems in everyday life, working out:

- and checking household bills;
- how many miles your car runs on a litre of fuel;
- how much it would cost to take the family to the cinema.

## Who can get closest?

Ask your child to key the number 6.8 into a calculator.

Write down another number to multiply the first number by (e.g. 8.4).

**Before doing the multiplication** on the calculator, **both of you should predict** the whole number that the answer will be closest to.

Compare your predictions with the answer. Whoever is the closer scores a point. Have ten goes, using different numbers, each with one decimal place. Who wins? Talk about your strategies.

Ask your child to key the number 74.8 into the calculator.

Write down a number between one and ten with one decimal place (e.g. 5.3).

Each of you chooses a number to divide 74.8 by to get an answer close to that second number. Use the calculator to check. Who is closer? They score a point. Have ten goes. Discuss your strategies.

Make up your own rules.

## Repeating rules – what happens?

Enter any number into the calculator.

Add one and divide by five.

Using the answer displayed, repeat the rule: **add one and divide by five**.

With each answer, keep repeating this rule. What happens?

Now use the same rule with a new start number. What happens?

Use the rule: **add one and divide by six**. What happens this time?

Make up your own rules and see if you can find a pattern each time.