



Fractions

BOX NOTICE

Name of the activity	Fractions
Activity duration	1h
Material needed	Fractions box, 50 wooden cubes
Number of pupils involved (per box)	One or two pupils per box

Step 1: Storytelling

In order to illustrate the concept of fractions, start by telling your pupils the story from the storytelling resource. At the end of the story, show them the cake that you have previously assembled: the cake was whole when Amalia took it out of the oven, but then people started eating it, so there was less and less. A first half was eaten: only half of it remained. By eating half of what remained, a quarter of the cake was left. Then, half of the quarter was eaten again: one-eighth remained.

Ask your pupils if there would be some cake left after someone ate half of what remained, over and over again.

Step 2: Experiment step

Use some tokens, such as wooden cubes or identical pieces of paper, plastic, etc., to symbolise pieces of a whole. Make sure that the pieces are identical: fractions are only made of equal parts.

If you decide to work with wooden cubes, you may paint them in several colours beforehand. If you found a lot of 50 wooden cubes for example, you may paint 6 of



Co-funded by
the European Union

MATHEMATICS

them in blue, 7 in green, 8 in red, 9 in yellow, and paint two groups of 10 cubes in pink and brown. Each lot of one colour would symbolise a whole. If possible, give one lot of 50 wooden cubes to each group. Make sure that the cubes are not lost by the end of the activity to reuse them later!

You may then follow the sequence you are interested in.

Step 3: Using the cubes to show examples

You may use the cubes to illustrate the concept of fractions and how to calculate with them.

Consider that each set of coloured cubes is equal to "1". Removing one or several cubes from each set would result in a fraction.

In order to add two fractions, they need to be of the same colour (i.e: have the same denominator). Give two green cubes to your pupils: they have $\frac{2}{7}$ of the green cubes.

Ask them to add $\frac{3}{7}$ of the cubes. How many cubes do they have? Make sure that all the cubes they used are green: they cannot add blue cubes to the green ones.

Then, do the opposite for subtractions.

Step 4: Other possibilities

If you do not have coloured cubes, you may use the clock in your classroom as an example to add and subtract fractions. Your pupils should already be familiar with "quarter to" or "half past" and can add quarters and halves. Follow the sequence guidelines for more applications!



Co-funded by
the European Union

MY BOX OF STEAM (project nr. 2022-2-EE01-KA220-SCH-000099273) is funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency (EACEA). Neither the European Union nor EACEA can be held responsible for them.