

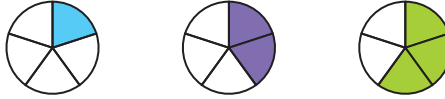


Key Stage 2	
Curriculum Subjects	Maths 
Learning Objectives	To represent and solve addition sums involving fractions.
Materials	Bic® Kids Evolutions Ecolutions Colouring Pencils Bic® Kids Learners Graphite Pencil Worksheet with multiple evenly segmented circles, example below. Squared maths paper/maths books. 
Teacher Prep	
PowerPoint presentation of shapes with different sections coloured in. Worksheet with evenly segmented circles. Put out worksheets, scissors and Bic® materials on tables.	
Lesson	
<p>Warm up:</p> <p>Carpet activity: PING PONG fractions game. Model this verbal paired game with the TA, see example below. The aim of the game is to make a whole. One of the pair says a fraction and the other must follow with the fraction which will add to this to make a whole. It becomes interactive if you pretend to swing a ping pong ball on your go. After you have modelled this you can play against a child or get the children to have a go in pairs. This is a great warm up as it gets children thinking about the different roles of numerators and denominators and is also a perfect teacher assessment tool to check understanding of what fractions represent. (10 minutes)</p> <p>Example: Teacher: two thirds TA: one third Teacher: PING TA: PONG Teacher: PING TA: PONG</p> <p>Main activity:</p> <ol style="list-style-type: none"> 1) Carpet activity: Share on Powerpoint different shapes with sections coloured in. Using mini whiteboards children can discuss thoughts with partner next to them, write the fraction on the board and share with class. This is a good opportunity to remind the children of numerators and denominators. A denominator is the total number of segments the shape is evenly split into and the numerator is the number of coloured sections of the shape. See examples below. (10 minutes) 2) Table activity: The children are given fraction addition sums and must use their worksheet of segmented circles to represent the sum. For example, $\begin{array}{r} 1 & 2 \\ - & + \\ 5 & 5 \end{array}$ <p>They would look for, and cut out from the worksheet, three circles which are segmented into 5 even parts. They would then use their Bic® Kids Evolutions Ecolutions Colouring Pencils to colour 1 segments of the first circle to represent the fraction $\frac{1}{5}$ and colour in 2 segments of the second circle to represent $\frac{2}{5}$.</p> 	

Lesson

They would put these into a number sentence, with the third circle showing the answer. Example below.



The children can then stick this into their maths book. It is good practise for the children to write the sum and answer out in number form underneath. They can do this using their Bic® Kids Learners Graphite Pencil. (Independent activity 25 minutes). Ensure there are a variety of examples with varying denominators.

Plenary:

Carpet activity: Game of PING PONG to assess that any numerator, denominator and addition misconceptions with fractions have been resolved (5 minutes).

Differentiation:

Support: If some children are still struggling with the concept of numerators and denominators then they can be given the correctly segmented circles so they can focus on the numerator representation and addition. Extension: Have prepared different shapes segmented for the children to use so they can apply to varying situations. I.e.



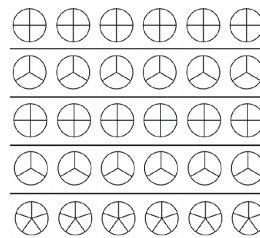
Learning Outcomes

- I can identify how much of a shape is shaded and how much is not shaded.
- I can represent fractions visually.
- I can write addition sums using fractions.

Follow on Activities

To use segmented shapes to help with the subtraction of fractions.
To use segmented shapes to help understand equivalent fractions.

Example of Worksheet



Examples of PowerPoint Presentation Slides:

What fraction is coloured?

What fraction is white?

What fraction is coloured?

What fraction is white?