

Cambridge Primary Mathematics 0096 · Stage 3

CM3-B3

Pizza Counting

Nf Fractions, decimals, percentages, ratio and proportion · A 30-minute lesson with a 15-minute short version.

Learning intention

For learners

We are learning to understand fractions as equal parts that together make one whole.

Success criteria

- I can show fractions of a whole with objects.
- I can draw or diagram the same maths.
- I can record my answer and explain how the story supports it.
- I can use TWM.04 while I work.

Learning objectives

3Nf.01

Understand fractions as equal parts that together make one whole.

TWM.04

Convincing: give evidence to back up or challenge an idea or answer.

30-minute lesson

Governed source lesson: Cut Into Six, Divided Into Sixths · Representation · Partitioning a whole into equal parts and naming the parts from the number of parts

1

Find the maths in the story

4 min**3Nf.01**

Read-along: Listen with highlighting and pause at the passage used by "Cut Into Six, Divided Into Sixths".

Teacher: Each pair hears one of the book's cutting sentences and folds a paper circle into exactly the number of matching parts it names. Cut on the folds and stack all the parts to check no piece is bigger than another. If one piece hangs out, refold a new circle rather than trimming the old one.

Learners: Notice the story evidence and say the maths question in their own words.

2

Model it with objects

5 min**3Nf.01**

Read-along: Replay the source passage while building the quantities, shapes or measures it supplies.

Teacher: Every cutting sentence in this book has the same two blanks: cut into ____ equal slices, divided into _____. Each pair writes both words for the circle they just cut, then reads the finished sentence aloud while pointing at their pieces. The count word and the name word must be different words.

Learners: Build a concrete model and check that each part matches the read-along.

3

Try the concrete task

6 min

3Nf.01

Read-along: Keep the relevant story page visible as the class tests the model.

Teacher: The teacher hands each pair a circle already cut into three pieces that do not match. Learners stack the pieces, decide whether the book's word thirds may be used for them, and say what is wrong in one sentence. Write the word the pieces do deserve if thirds does not fit.

Learners: Change or compare the objects, then explain what stayed the same and what changed.

4

Draw the maths

5 min

3Nf.01

Read-along: Return to the same story evidence before learners make a pictorial record.

Teacher: Model a clear drawing, diagram or mark for the concrete work without adding a quantity the story does not supply.

Learners: Draw the model and label the important parts with maths language.

5

Record and solve

6 min

3Nf.01

Read-along: Use the read-along once more as the evidence check for the abstract record.

Teacher: Each pair adds their cut circles to a class line arranged by how many parts each pizza has. Read the whole line aloud using the book's own naming words, and name aloud any pizza in the book's closing list that the class line is missing.

Learners: Record the result with suitable numbers, words or symbols and link it back to the picture.

6

Reflect and convince

4 min

TWM.04

Read-along: Show the source passage and invite a final evidence-based check.

Teacher: Name the Thinking and Working Mathematically focus: Convincing: give evidence to back up or challenge an idea or answer.

Learners: Use the concrete model, drawing and record together to justify the answer.

Read-along routes

Shared maths question

How does Pizza Counting help us explore fractions of a whole?

Evidence required

Show the story evidence, a concrete model, a pictorial record and a matching abstract record.

Solo

Read independently, pause at the named source passage and complete the shared maths model.

Supported

Read with the audio and use the teacher's pause points, objects and response frame.

Listening

Listen with the text highlighted, build the same model and give the explanation orally.

Assessment check

The learner meets 3Nf.01 by showing and explaining the objective through the story model. Evidence for TWM.04 is visible when the learner demonstrates this Thinking and Working Mathematically focus: Convincing: give evidence to back up or challenge an idea or answer.

15-minute short version

1

Story question

4 min**3Nf.01**

Read-along: Listen to the passage used by “Cut Into Six, Divided Into Sixths”.

Teacher: Each pair hears one of the book's cutting sentences and folds a paper circle into exactly the number of matching parts it names. Cut on the folds and stack all the parts to check no piece is bigger than another. If one piece hangs out, refold a new circle rather than trimming the old one.

Learners: Name the maths question and the story evidence.

2

Build, draw and record

7 min**3Nf.01**

Read-along: Replay the evidence while learners move from objects to a drawing and a record.

Teacher: Every cutting sentence in this book has the same two blanks: cut into ____ equal slices, divided into _____. Each pair writes both words for the circle they just cut, then reads the finished sentence aloud while pointing at their pieces. The count word and the name word must be different words.

Learners: Make one concrete model, draw it and add numbers, words or symbols.

3

Check and explain

4 min

TWM.04

Read-along: Return to the source page for the final check.

Teacher: Ask learners to demonstrate: Convincing: give evidence to back up or challenge an idea or answer.

Learners: Explain why the model answers the story question.

Learner activity

Concrete, pictorial, abstract: Fractions of a whole

Use the read-along evidence for every part. Do not add a number or measure that the story does not give.

1. Build the story maths with objects.

2. Draw the same model and label its important parts.

3. Record the result with suitable numbers, words or symbols.

4. Explain how your evidence uses TWM.04.
