

LAMINGTONS

Lesson 3: Fairer Shares

Australian Curriculum: Mathematics (Year 5)

ACMNA102: Compare and order common unit fractions and locate and represent them on a number line.

ACMNA103: Investigate strategies to solve problems involving addition and subtraction of fractions with the same denominator.

Lesson abstract

Students review the findings from the previous lesson. They determine a fairer way to share the lamingtons across all four groups.

Mathematical purpose (for students)

We will use our knowledge of fractions as division and unit fractions to determine the fairest share.

Mathematical purpose (for teachers)

Students apply their knowledge of fractions as division and unit fractions to determine the fairest share.

Suggested presentation One lesson of one hour

Vocabulary encountered

- unit fractions

Lesson materials

- Chart paper and markers

We value your feedback after this lesson via our website.

Introduction

Use PowerPoint *2a Fairer Shares* to review the previous lesson. Note that the students in some groups got more lamingtons than students in other groups:

- Each student in group 1 received $\frac{3}{5}$ or $\frac{1}{2} + \frac{1}{10}$
- Each student in group 2 received $\frac{4}{5}$ or $\frac{1}{2} + \frac{1}{5} + \frac{1}{10}$
- Each student in group 3 received $\frac{5}{6}$ or $\frac{1}{2} + \frac{1}{3}$
- Each student in group 4 received $\frac{6}{8}$ or $\frac{1}{2} + \frac{1}{4}$

Explain that in this lesson, students will be considering what a *fairer* share of the lamingtons might be.

Pose the question: *If the lamingtons were shared fairly across the groups, how much would each student receive?*

Exploration

Allow students to work on the problem in pairs or threes. As in the previous lesson have students create a poster of their working.

Possible Student Strategies

- Students find the total number of lamingtons and children. They then share the 18 lamingtons between 24 children.
- Encourage students to consider how to cut the lamingtons, noting that it is impractical to cut one lamington into 24 pieces.
- Dividing each lamington in half and then sharing the remaining lamingtons, they will see that each student receives $\frac{1}{2} + \frac{1}{4}$. Ask students to work out how much of one lamington this would be (i.e. $\frac{3}{4}$).

Class discussion

Have the students share their strategies for deciding how much of a lamington would each child receive. Look at how the strategies used are similar and different.

Discuss how this share ($\frac{3}{4}$) compares to the shares each group received in Lesson 2. *Which groups would get a larger portion sharing in this way? Which groups would get a smaller portion sharing in this way? Which share is fairer?*