

FRACTION BENCHMARKS

Lesson 2: In Between...

Australian Curriculum: Mathematics (Year 6)

ACMNA125: Compare fractions with related denominators and locate and represent them on a number line.

Lesson abstract

Students use the fraction cards from the previous lesson to play a game in pairs. One student takes a random fraction card and then determines whether the fraction is closest to 0, $\frac{1}{2}$, or 1. The second student then needs to name a fraction that is in between the fraction on the card and the identified benchmark number.

Mathematical purpose (for students)

We will build our understanding of the size of fractions by identifying fractions in between two numbers.

Mathematical purpose (for teachers)

Students deepen their understanding of fractions as numbers and the magnitude of fractions. Students use benchmarks (0, $\frac{1}{2}$, 1) to estimate the magnitude of fractions. They apply their understanding of equivalence to determine fractions between two given numbers.

Suggested presentation One lesson of one hour

Vocabulary encountered

- benchmark numbers
- equivalent fractions

Lesson materials

- [Student Sheet - Fractions In-Between](#)
- *1a Fractions Cards* from Lesson 1
- Post-it notes

We value your feedback after this lesson via our website.

Introduction

Review the previous lesson, where students needed to decide if given fractions were closest to 0, $\frac{1}{2}$ or 1.

Write the fraction $\frac{10}{12}$ on the board and ask students if it is closest to 0, $\frac{1}{2}$ or 1. Once students are in agreement that the fraction is closest to 1, pose the question: *What is a fraction that fits between $\frac{10}{12}$ and 1?* Encourage students to think of multiple answers.

Students work out a fraction on their own and share it with a partner. In pairs, students decide whose fraction is **closest** to 1.

As a class discuss some of the strategies used.

Exploration

Provide students with [Student Sheet - Fractions In-Between](#). For this lesson students will work in pairs and use the fraction cards from the previous lesson. These cards should be stacked into a deck.

1. Student 1 draws one card from the deck.
2. Student 1 decides on a benchmark for this fraction: is it closest to 0, $\frac{1}{2}$ or 1? Both students record the fraction and its benchmark on their student sheets.
3. Student 2 works out a fraction that fits between Student 1's fraction and its benchmark. Both students record the new fraction on their student sheets.
4. Students continue to take it in turns to draw cards, find benchmarks and identify “in-between” fractions.

Example

1. Student 1 draws $\frac{1}{3}$ from the deck.
2. Student 1 states that $\frac{1}{3}$ is closest to $\frac{1}{2}$ and both students record this on their student sheets.
3. Student 2 needs to work out a fraction that fits between $\frac{1}{3}$ and $\frac{1}{2}$. The student suggests $\frac{5}{12}$. Both students record this on their student sheets.
4. Student 2 draws a card next and the activity repeats.

Class discussion

Conduct a class gallery walk with student sheets on display. Class members walk around and look at the different fractions that have been recorded. Students can leave sticky note comments on each-other's work samples. If they disagree with any of the recorded answers, they need to state why. Students may also offer some other fractions that fit between the fractions given on the student sheets.

Select students to share some of the fractions that they recorded, focusing particularly on “close fits” where the fraction drawn was very close to the benchmark.

Our fraction is . It is closest to .

A fraction that fits in-between is .

Our fraction is . It is closest to .

A fraction that fits in-between is .

Our fraction is . It is closest to .

A fraction that fits in-between is .

Our fraction is . It is closest to .

A fraction that fits in-between is .

Our fraction is . It is closest to .

A fraction that fits in-between is .