

Improper Fractions

Lesson Overview

In this lesson, students will use manipulatives to explore the connections between improper fractions and mixed numbers. This lesson is a review lesson in preparation for the grade level standard.

Standards Addressed

CCSS 6.NS.1 Interpret and compute quotients of fractions, and solve word problems involving division of fractions by fractions, eg, by using visual fraction models and equations to represent the problem.

Disciplinary Literacy Best Practices

Line of Learning (LOL)

Thumbs Up, Thumbs Down

Exit Ticket

Lesson Plan

Time Required – One 45 minute class period

Disciplinary Vocabulary – mixed number, denominator, numerator, improper fraction

Materials Needed:

- Sets of Fraction Manipulatives (1 set of thirds pieces and 1 set of fifths pieces per group)
- Index cards or strips of paper for exit ticket

Assessment: Exit Ticket

Engage

- Introduce the strategy students will use to record their learning in the lesson: Line of Learning.
- Students respond in writing to the question: “What do you know about improper fractions?”
- Students draw a line (line of learning) under their response to show what they know before the lesson. At the end of the lesson, they will write their answer to the same question to show what they have learned.

Explore

- Provide each group of students a set of fraction manipulatives. Each set should have 8 thirds. Allow them time to explore the pieces and make a list of what they think they know about the pieces.
- Teacher questions: How many total pieces do you have? How many wholes do your pieces make? How many would you have left over? What makes this fraction an improper fraction? (numerator is bigger than the denominator) How might we represent this same fraction as a mixed number? Look at your fraction pieces. How can we tell from the pieces how to write this fraction as a mixed number?
- Try These: Write $\frac{5}{3}$ as a mixed number. Write $\frac{7}{3}$ as a mixed number. Use your fraction pieces to help you.

Explain

- Return to your opening question and write your new learning under the line. “What do you know about improper fractions?”

Exit Ticket: What is $\frac{8}{5}$ as a mixed number? How do you know?

Teacher Reflections and Biographical Information

There was a variation on line of learning by not just writing new learning but connecting knowledge to concrete learning with the manipulatives.

Lesson Author: Becky Burrow, 6th grade math and science teacher at Bell Middle School in Laurens County School District 56.