

Title: Dividing fractions and mixed numbers (Lesson 9)

Name: Christine Dyck

Date:

Curriculum Area: operations with fractions	Length of Learning Experience: 80 min
Core Competencies: Acquiring and presenting information: acquire information from a variety of sources and present information for many purposes. Understanding and Solving: students visualize to solve problems and apply multiple strategies to solve abstract and contextualized questions Questioning and investigating: They develop and refine questions; create and carry out plans; gather, interpret, and synthesize information and evidence; and reflect to draw reasoned conclusions. Connect and engaging with others: Students engage in informal and structured conversations. Building relationships: Students build and maintain diverse, positive peer and intergenerational relationships. They are aware and respectful of others' needs and feelings and share their own in appropriate ways. They adjust their words and actions to care for their relationships.	
Big Idea: Number represents, describes, and compares the quantities of ratios, rates and percents.	
Learning Standards (Curricular Competencies and Content) - Use reasoning and logic to explore, analyze, and apply mathematical ideas - Apply multiple strategies to solve problems in both abstract and contextualized situations - Explain and justify mathematical ideas and decisions - Represent mathematical ideas in concrete, pictorial, and symbolic forms	
Learning Target - Students can successfully divide fractions and mixed numbers - Students understand to use reciprocal and multiplication - Students have a mental image for division	Assessment Strategies - Students will be working in groups on vertical white boards - Assessment will take place through walking around, listening to students reasoning and asking questions
Scaffolds & Accommodations - Students will be work in groups so they can review content with peers	Extensions - Extension question below

FPPL Learning is holistic, reflexive, reflective, experiential and relational (focused on connectedness, on reciprocal relationships, and a sense of place) - Students are working together - Students are using past knowledge and applying their thinking to new challenges	
Materials and Technologies/Resources/Pre Class Preparation - White board markers	
Learning Progression	
Intro: Engage/Explore (10 min) - Students gather around one white board where there is a recipe written out for cookies - The recipe makes 24 cookies - What if we want to only make 12 cookies? How can we change the quantities? $\frac{1}{2}$ cup of chocolate chips $\square$ $\frac{1}{4}$ cup chocolate chips - Show that dividing by 2 = multiplying by $\frac{1}{2}$	
Practice: (20 min) - Students split into their groups around the room at the whiteboards and are given scaffolded questions to practice dividing fractions	
Review/Notes: (10 min) - Students gather again - What steps did you use to divide the fractions? - Elicit using multiplication. - Students make their own quadrant notes in their groups and then either take a picture or copy it down	
Practice: art extension (30 + min) activity for dividing fractions - materials needed: paper steps, coloured pencils	

Notes and Reflection:

Scaffolding: beginning with whole number, then two proper fractions, then mixed numbers, then context questions

Questions:

$$\frac{2}{3} \div 6$$

$$\frac{7}{10} \div \frac{3}{10}$$

$$4\frac{2}{5} \div 1\frac{1}{2}$$

$$3\frac{2}{3} \div 5\frac{1}{4}$$

$$\frac{3}{5} \div \frac{3}{8}$$

$$\frac{7}{2} \div \frac{4}{3}$$

$$3\frac{1}{5} \div \frac{1}{2}$$

Maxine ran $3\frac{1}{3}$ laps in $11\frac{2}{3}$ min. How long did it take to run one lap if they ran every lap at the same speed?

A snail travelled 48 cm in $\frac{2}{3}$ hours. Suppose the snail moved at a constant speed. How far would the snail travel in 1 hour.