Table of Contents

Pg. 3	Teacher Notes
Pg. 4–5	Lesson I-Equal Parts
Pg. 6–7	SP-Finding Equal Parts
Pg. 8–10	Lesson 2-Fraction Pizza
Pg. 11–12	SP-Fractions in a Set
Pg. 13-15	Lesson 3-More or Less Than One
Pg. 16–17	SP-Label the Fractions
Pg. 18–19	Lesson 4-Mixed Numbers
Pg. 20–21	SP-Number Line Cut and Paste
Pg. 22–23	Lesson 5-Fraction Size
Pg. 24	SP-Spin the Fraction
Pg. 25–26	Lesson 6-Fraction Line Up
Pg. 27–28	SP-Comparing Bar Fractions
Pg. 29–30	Lesson 7-Comparing Fractions
Pg. 31–32	SP-Shade and Compare Fractions
Pg. 33–34	Lesson 8-Problem Solving With Fractions
Pg. 35–36	SP-Comparing Fractions
Pg. 37–48	Lesson 9-Rolling Fractions
Pg. 39–40	SP-Fraction Word Problems
Pg. 41–42	Lesson 10-Fraction Skittles
Pg. 43-44	SP-Fraction Word Problems 2
Pg. 45-46	Lesson II-Finding Fraction Equivalencies
Pg. 47-48	SP-Equivalent Fraction Bars
Pg. 49–50	Lesson 12–3 Missing Numbers
Pg. 51–52	SP-Shade and Find the Equivalent Fraction
Pg. 53–54	Lesson 13-3 Partitioning Squares

SP-Missing Numbers
Lesson 14-Fraction Problem Solving
SP-Generating Equivalent Fractions
Lesson 15-Pattern Block Fractions
SP-Fraction Mystery Picture
Lesson 16-Fraction Brownies
SP-Fraction Review
Lesson 17-Fraction Games
SP-Decompose the Fraction
Lesson 18-Fraction Quilts
SP-More Decomposing Numbers
Lesson 19-Adding & Subtracting Problem Solving
SP-Adding Fractions
Lesson 20-Pizza Fractions
SP-Subtracting Fractions
Lesson 2I-Multiplication in Context
SP-Repeated Addition
Lesson 22-Explaining the Algorithm
SP-Basic Multiplication
Lesson 23-Fraction Pizza
SP-More Multiplication
Lesson 24-Field Trip Dilemma
SP-Multiplying Fractions
Lesson 25-Playground Design
SP-Multiplication Word Problems

Teacher Notes

I sincerely hope that you and your students enjoy this fraction unit! This unit has been designed around the Common Core Standards, but you should find the content useful in any fourth grade classroom. In this unit you will find performance tasks to conceptually teach new skills through the workshop model, as well as work station activities and games for review. I have included a suggested pacing guide below. As always, feel free to contact me if you have any questions. ashleigh_60@hotmail.com

Unit at a Glance

SL	Lesson I	Lesson 2	Lesson 3	Lesson 4	Lesson 5
of Fractior	Equal Parts	Fraction Pizza	More or Less Than One	More or Less Than Mixed Numbers One	
Concept o	Skill: Finding Equal Parts	Skill: Fractions in a Set	Skill: Label the Fraction	Skill: Number Line Cut and Paste	Skill: Spin the Fraction
suo	Lesson 6	Lesson 7	Lesson 8	Lesson 9	Lesson 10
ing Fracti	Fraction Line Up	Comparing Fractions	Problem Solving With Fractions	Rolling Fractions	Fraction Skittles
Compar	Skill: Comparing Fractions	Skill: Shade and Compare	Skill: Comparing Fractions	Skill: Fraction Word Problems	Skill: Fraction Word Problems 2
suc	Lesson II	Lesson 12	Lesson 13	Lesson 14	Lesson 15
Equivalent Fractio	Finding Fraction Equivalencies	Missing Numbers	Partitioning Squares	Fraction Problem Solving	Pattern Block Fractions
	Skill: Equivalent Fraction Bars	Skill: Shade and Find the Equivalent Fraction	Skill: Missing Numbers	Skill: Generating Equiv. Fractions	Skill: Fraction Mystery Picture
ting	Lesson I6	Lesson 17	Lesson 18	Lesson 19	Lesson 20
Adding & Subtract Fractions	Fraction Brownies	Fraction Games	Fraction Quilts Adding &		Pizza Fractions
	Skill: Fraction Review	Skill: Decompose the Fraction	More Decomposing Numbers	Problem Solving Skill: Adding Fractions	Skill: Subtracting Fractions
suc	Lesson 21	Lesson 22	Lesson 23	Lesson 24	Lesson 25
ing Fractic	Multiplication in Context	Explaining the Algorithm	Fraction Pizza Skill: More	Field Trip Dilemma	Playground Design
Multiply	Skill: Repeated Addition	Skill: Basic Multiplication	Multiplication	Skill: Multiplying Fractions	Skill: Multiplication Word Problems

25 Detailed Lesson Plans

	Lesson I: Equal Parts	Materials	
	Standard: Developing prior knowledge and conceptual understanding to approach fourth grade standards.	 H pieces of chart paper (label each piece of chart paper with a different term: halves, thirds, 	
ł	andard	 fourths, and fifths) Construction paper 	IS

Mini-lesson

Mini Lesson

Today we are beginning a brand new unit where we will be learning about fractions! I realize that you learned a lot about fractions as third graders, and this year we will take what you already know and go a little farther. By the end of this unit, you'll be able to generate equivalent fractions, compare fractions, add & subtract fractions, and multiply fractions! We're going to start slow and take things step-by-step. First, can anyone tell me what a fraction is? Give students time to respond. A fraction tells us how many parts of a whole we have.

Fractions must be partitioned into equal parts, and today we're going to practice partitioning shapes into equal parts. Spend a few minutes discussing equal parts and why it is important for fractions to be partitioned into equal parts.

Work Time

At the top of one piece of chart p

Work Time

vith thirds, fourths, and fifths. Place the chart paper around the classroom. Have students cut out shapes with their construction paper and fold one shape into halves, one into thirds, one into fourths, and one into fifths. Encourage students to only create one rectangle. The other shapes can be circles, triangles, trapezoids, etc. Have students outline the pieces with a marker to show how the shape is partitioned into equal pieces. Students should place their shape on the correct piece of chart paper

Closing

Closina

Draw everyone's attention to the chart paper and discuss how students know their shapes were partitioned into equal pieces. Ask students which part was easiest to fold and which part was most difficult to fold. Use this time to introduce the term denominator. Explain that the denominator is the total number of pieces.

Ir	Intervention Tervention	cut shapes.	 Extension Have students find how many can partition each shape into pieces. 	Extension
	Essential Questions		Formative Assessment	
(Essential Questions	arts and how do I create need equal parts?	 Observe students as they v Look at the shapes on each You will quickly be able to id 	Formative Assessment
			misconceptions.	

25 Conceptual Lessons

The second secon	PROBLEN		Date WITH FR/ repetitionarity 22 > ? * Ann Recognition more	ACTION	Consultance F	Paction Sk	ittles	ncluded in the b
Explore how which have each from two and the and there is not then its is a front from the in down to 0 Front from the international from the international to a set of the international to 0 from the international to a set of the international to 0 from the international to a set of the international to 0 from the international to a set of the international to 0 from the international to a set of the international to 0 from the international to a set of the international to 0 from the internat	 2 Online these fractures 0 3 Circle of the resignifies 1 > 1 1 < 1 4 Charlotte Corres Loyle 	un groutest to boot $-\hat{k} = \hat{k}$ that and true. Then, in the s $-\hat{k} = \hat{k}$ $-\hat{k} = \hat{k}$ Earry, and Victoria auch ha	IF IF		and a partner who has a DIFF each color Settle and Red Orange ⁴ Setue 8 Return 1 Set tor Statement Concerner Statement another partner who has a D pare your fractional parts of	SENT deconverter from you record your crossee in the to the former of former to a end former to be and for SEEEENT deconverter from each color Sets.	Tallow Haves Compare your Kile binker You and Pa Yellow Intra A Intra A In	Purphy fractural port i rtner A Purphy Partner A Daring arrennes Visional
Explore how that how each frequency on and the first or a sent frequency on a sent frequency of the first or a sent the first	Orderstrike de light her che Orders sithe 1 of her che Lagies de light her che Dans sithe 1 of her che Where is the her che Where is the next situated Where of the next situated Where of the next situated Where of the heart situated Where of the heart situated Where of the heart situated Where of the next situated Where of the next situated Lagies and site or choose light b have signard	Incode law solute law solute law solute law and demanded? In demanded? In demanded? In law the head area of demanded? In law the head area of the	ant to the gradent around the alter free grin these r that free grin these reaction	00000000000000000000000000000000000000	Termar C Serbar X Termar C Serbar X Termar C Serbar X Termar C Serbar X Termar X Termar X Termar X Termar X Termar X Termar Serbarat X Termar Serbarat X Termar Serbarat Termar Serbarat Termar X Termar Serbarat Termar X Termar Serbarat Termar X Termar Serbarat Termar X Termar Serbarat Termar Serbarat Termar Serbarat Termar Serbarat Termar X Te	Green but record Green but to the	your crower in the Yellow A Techar C Tech Te Color Skittle? Checkler Skittle? Decekler Skittle? Decekler Skittle? Decekler Skittle?	taile bein
Care of the field	TES	Vame The smal Write Gares Nore Poer Show Skyle Some Seri Vame Urbon Adson Adson Adson Caden Caden County	FRACtion are held in Colorade Hits or prove SH P" Jump 256 I feet 451 558 561 539 Snow Bea P" Jump 21 341 401 351				0000000000 righm or problems below Trues	
		Who perped the further Who perped the further Whot is the difference to What is the total distance What is the total distance What is the total distance	more shing?					

25 Conceptual Lessons



Lesson 13: Partitioning Squares	Materials:
Standard: 4.NF.I Explain why a fraction a/b is equivalent to a fraction $(n \times a)/(n \times b)$ by using visual fraction models, with attention to how the number and size of the parts differ even though the two fractions themselves are the same size. Use this principle to recognize and generate equivalent fractions.	• Partitioning Squares recording sheet

Mini-lesson

Review with students the terminology of equivalent fractions and refer/connect the term to what was learned in Lesson II and I2. This lesson is used to introduce the algorithm to students who have not yet discovered the pattern. Students may need considerable guidance in today's task, so it is beneficial to keep the mini lesson short.

Work Time

On the recording sheet students will shade in the same fraction square to represent three-fourths. Have students shade in the first three columns, rather than leaving out one in the middle, as it helps for everyone's fraction to look similar for the purpose of the class discussion. Then, students should follow the following steps:

- Partition Fraction A into 3 equal rows. (horizontal lines).
- Partition Fraction B into 4 equal rows.
- Partition Fraction C into 2 equal rows.
- Partition Fraction D into 5 equal rows.

Ask students to discuss with their group/table/partner what patterns they notice. After students discuss with a group or partner, continue the discussion as a whole group. At this point, show students how the numerator and denominator can be multiplied by the same number to find an equivalent fraction. Use the fraction models to illustrate your explanation. Have students repeat the steps above with the bottom squares and show how they can use multiplication when writing their equivalent fraction equation.

Closing

Have students share a few of their best explanations. Ask students to share whether they agree or disagree with the explanation and explain why. Allow students to ask questions and use this time to address any misconceptions.

InterventionWork with students in a small group.Have students work with fraction models.	 Extension Have students explain what patterns they noticed on the recording sheet. 			
Essential QuestionsHow can rename fractions?	Formative AssessmentObserve students as they work.			
What are fraction equivalencies?How can I generate equivalent fractions?	Check for accuracy in student work.Listen to student conversations.			





Look at the fractions above. What patterns do you notice?



25 Skills Practice Printables



Aligned to Each Lesson



