Grade Level/Course:	5th/ 6th

Lesson/Unit Plan Name: Division of Fractions, from the Abstract to the Concrete

Rationale/Lesson Abstract: Students will be able to understand and divide fractions using different methods.

Timeframe: 2 – 3 days (depending on your class)

Common Core Standard(s):
5.NF.7

Level IV AA Students will:
EE6.NS.1. Compare the relationships between the three unit fractions (1/2, 1/4, 1/8).
Ex. Given three measuring cups filled to 1/2, 1/4, and 1/8 with water, compare fractional amounts to determine which is greater.
Ex. Given pictorial representations of shaded pictures and/or fraction bars, compare fractions to determine which is a smaller or a lesser amount.
Ex. Using circle shaped fraction puzzles, compare a 1/2, 1/4, and 1/8 to determine which is greater.
Level III AA Students will:
EE6.NS.1. Compare the relationships between two unit fractions.
Ex. Given two measuring cups of 1/2 and 1/4 full of sand, compare the amounts in each of the measuring cups to a whole cup. Which is more?
Ex. Given two measuring cups of 1/4 and 1/8 full of water, compare the amounts in each of the measuring cups to a whole cup. Which is more?
Ex. When given a group of even-numbered objects that represents 1/2 and 1/4, determine which set is more or less.
Ex. Split an even-numbered group of objects into two equal groups to show one half of the group; then split each group again to show fourths of the whole; and split each group again to show eighths of the whole.
Level II AA Students will:
EE6.NS.1. Demonstrate an amount of 1/2.
Ex. Fold one piece of paper in half to show two halves in every one whole.
Ex. Shade a shape to show 1/2.
Ex. Given a whole and a half, identify the half (e.g., a whole or half sandwich).
Ex. Shown a glass that is full and a glass that is 1/2 (half) full, select the half-full glass.
Level I AA Students will:
EE6.NS.1. Distinguish between more or less.
Ex. Given two groups of objects with significantly different amounts (three vs. 10), determine which group has more or less.
Ex. Given a picture of a familiar symmetrical object cut in half, combine both halves to make a whole.

Instructional Resources/Materials: Fraction Bars, paper, and pencils. If you do not have fraction you can print them off from the math website under math resources, and have the kids cut them out.

Activity/Lesson:

We need to explain to the kids that you have 2 entire sets of – and then 2 out of 3 or – of the final set to get a quotient of   – .

Ask the kids what are the common mistakes that kids will make? Why was the bonus question harder than the other questions? What are some strategies we can do to help the students who are struggling understand the concept, especially when the problems have a quotient of a mixed number?

We can also solve these division problems by using a number line. For the problem   – , we can draw a number line and the kids can actually count how many – are in 2

–   –   –   –   –   –   –   –   –

Have the students solve the problems below by drawing a number line.

Answers for the fraction bar and number line problems.

Bonus:

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Activity/Lesson continued:

Once the kids understand the concept of dividing fractions then they should be able to divide using three different ways. Remember the main reason for learning multiple methods is not for the kids to solve each problem 3 ways, but for them to look at each problem and see which

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Assessment:

Exit Ticket:

Use a visual model (either fraction tiles or a number line) to solve   –

Exit Ticket:

Solve –   – three different ways, and explain which method would be more efficient and why.

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Solve each problem three different ways. For each problem explain which method is more efficient and why?

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Extra Practice Day 2

Solve each problem three different ways. For each problem explain which method is more efficient and why?

— —	— —	— —
Multiply by Reciprocal	Divide Across	Common Denominator

— —

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This method should be
listed as the most

— —

— —

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This method should be listed
as the most efficient,
because the numbers are
reasonable and it uses fewer
steps.