MIAMI-DADE COUNTY PUBLIC SCHOOLS
District Pacing Guide

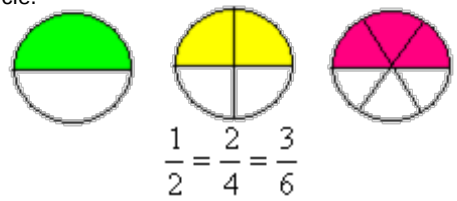
GRADE 3 **Course Code: 5012050E1**

BIG IDEA 2: Develop an understanding of fractions and fraction equivalence.

TOPIC VII: Fractions

PACING	DATE(S)
21 Days	12/08/10 to 01/20/11

NEXT GENERATION SUNSHINE STATE STANDARD(S)	ESSENTIAL CONTENT	OBJECTIVES	INSTRUCTIONAL TOOLS
MA.3.A.2.1 Represent fractions, including fractions greater than one, using area, set, and linear models. **MA.3.A.2.2** Describe how the size of the fractional part is related to the number of equal sized pieces in the whole. **MA.3.A.2.3** Compare and order fractions, including fractions greater than one, using models and strategies. **MA.3.A.2.4** Use models to represents fractions, including fractions greater than one, and identify representations of equivalence	A. Representing Fractions (up to an including the whole number 5) 1. Denominators from 1 through 10, 12, or 16 2. Greater than 1 3. Area model (circles, rectangles, and unusual shapes) 4. Set model (counters or other objects) 5. Linear model (number lines and fraction strips) B. Size of Fractional Parts 1. Number of fractional parts 2. Number of equal sized parts in the whole C. Comparing Fractions (including greater than one) 1. Graphic representations 2. Same denominator 3. Same numerator 4. Benchmark fractions (0, 1/4, 1/3, 1/2, 3/4, and 1) 5. Inequality symbols (< and >) D. Ordering Fractions (including greater than one) 1. Graphic representations 2. Benchmark fractions (0, 1/4, 1/3, 1/2, 3/4, and 1) 3. Inequality symbols (< and >)	• Represent a fraction by a graphic representation • Represent a mixed number by a graphic representation. • Identify a fraction from its graphic representation. • Identify a mixed number from its graphic representation. • Use area, set, or linear models to represent a fraction or a mixed number. • Relate the size of the fractional part to the number of equal sized pieces in the whole: o as the number of equal parts increases, the size of each fractional part decreases o compare fractions by looking at numerators (1/5 and 1/6); since both fractions represent one part of a whole, the size of the parts can be compared.	**Core Text Book:** **A 1-5:** Chapter 7, Lessons 7.1-7.8 **B 1-3:** Chapter 7, Lessons 7.1, 7.2, 7.6-7.9 **C 1-5:** Chapter 8, Lessons 8.1-8.4 **D 1-3** Chapter 8, Lessons 8.5 **E 1-3** Chapter 8, Lessons 8.6-8.7 **Vocabulary:** fraction, mixed number, fractions greater than one, area (region) model, set model, linear (measurement) model, numerator, denominator, fractional part **Assessments:** **A 1-5: B 1-3:** Chapter 7 • Lessons 7.1-7.9, Mid-Chapter Checkpoint • Lessons 7.9, Chapter Review Test • Chapter 7 Test **C 1-5:** Chapter 8 • Lessons 8.1-8.4, Mid-Chapter Checkpoint **D 1-3, E 1-3:** Chapter 8 • Lessons 8.5-8.7, Chapter Review/Test • Chapter 8 Test **Strategies:** KWL, identifying similarities and differences, cooperative learning groups, non-linguistic representation (pattern blocks, fraction strips), area models, literature connection **Technology:** 1. NCTM Illuminations: a. Fraction Model I b. Fun with Fractions 2. Gizmos a. Fraction Artist b. Toy Factory 3. National Library of Virtual Manipulatives a. Fraction Bars b. Fractions Naming c. Fractions Parts of a Whole d. Fractions Visualizing

BIG IDEA 2: Developing an Understanding of Fractions and Fraction Equivalence	
BENCHMARK CODE	**BENCHMARK**
MA.3.A.2.1	Represent fractions, including fractions greater than one, using area, set, and linear models. *Cognitive Complexity/Depth of Knowledge Rating:* Moderate *Remarks/Examples*: Arvin ate ½ of a pizza. April ate ½ of a pizza. Arvin claimed that he ate more pizza than April did. Show that Arvin's claim can be correct.
MA.3.A.2.2	Describe how the size of the fractional part is related to the number of equal sized pieces in the whole. *Cognitive Complexity/Depth of Knowledge Rating:* Moderate *Remarks/Examples*: For instance, "As the number of equal parts increases, the size of each fractional part decreases." Fractions can also be compared by looking at numerators, such as when comparing 1/5 and 1/6. Since both fractions represent one part of a whole, the size of the parts can be compared. Fifths are larger than sixths so 1/5 is greater than 1/6.
MA.3.A.2.3	Compare and order fractions, including fractions greater than one, using models and strategies. *Cognitive Complexity/Depth of Knowledge Rating:* Moderate *Remarks/Examples*: Strategies include using benchmark fractions and common numerators and denominators. Typical benchmarks for fractions are 0, ½, and 1. Fractions can also be compared by looking at numerators, such as when comparing 2/5 and 2/6. Since both fractions represent two parts of a whole, the size of the parts can be compared. Fifths are larger than sixths so 2/5 is greater than 2/6.
MA.3.A.2.4	Use models to represent equivalent fractions, including fractions greater than 1, and identify representations of equivalence. *Cognitive Complexity/Depth of Knowledge Rating:* Moderate *Remarks/Examples*: Example: Use your fraction circle set to come up with different combination of the same sized pieces that represent 1/2 of a circle.  $\frac{1}{2} = \frac{2}{4} = \frac{3}{6}$

MIAMI-DADE COUNTY PUBLIC SCHOOLS
Instructional Focus Guide

GRADE 3 **Course Code: 5012050E1**

Date	Pacing Guide Benchmark(s)	Data Driven Benchmark(s)	Activities	Assessment(s)
12/08/10 to 01/20/11	**MA.3.A.2.1** Represent fractions, including fractions greater than one, using area, set, and linear models. **MA.3.A.2.2** Describe how the size of the fractional part is related to the number of equal sized pieces in the whole. **MA.3.A.2.3** Compare and order fractions, including fractions greater than one, using models and strategies. **MA.3.A.2.4** Use models to represents fractions, including fractions greater than one, and identify representations of equivalence			