



## Course Outcome Summary

### Course Information: **Functional Math 3**

**Description:** This is the top level of pull out math class. Students should be able to move from this course to regular education math after shoring up basic skills.

**Instruction Level:** Basic

**Total Credits:** 2

**Prerequisites:** Grade 5-7 skill level

**Textbooks:** Mathematics: Applications and Concepts. Also students work independently on Dreambox computer program 2-3 days per week to increase individual math skills at their own level.

### Course Standards:

#### Common Career and Technical Core:

1. Communicate and collaborate with others to accomplish tasks and develop solutions to problems and opportunities.
2. Identify and apply employability skills.
3. Assess benefits and challenges of working in diverse settings and on diverse teams.

### Unit

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1. Number Patterns and Algebra
2. Statistics and Graphs
3. Decimals - place value and addition, subtraction,
4. Decimals - multiplication and division
5. Fractions and Decimals
6. Integers
7. Algebra: Solving Equations

## Unit Outlines

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### 1. Number Patterns and Algebra

#### Standards:

- Solve problems using the four step plan.
- Analyze patterns and relationships.

#### Essential Question:

- Students will be able to answer calculation questions with ease.

#### Essential Knowledge:

- Addition and Subtraction are related
- Multiplication and division are related
- Students will be able to answer calculation questions with ease.
- Students will be able to identify keywords in a word problem to know which operation to use.

### 2. Statistics and Graphs

#### Standards:

- Use equivalent fractions as a strategy to add and subtract fractions. Apply and extend previous understandings of multiplication and division to divide fractions by fractions

#### Essential Question:

- How do we add, subtract and multiply fraction?
- How does multiplying fractions relate to real world problems?

#### Essential Knowledge:

- Fractions and decimals are related

### 3. Decimals - Place value and addition, subtraction,

#### Standards:

- Perform operations with multi-digit whole numbers and with decimals to hundredths.
- Understand the place value system.

#### Essential Question:

- How do we round decimals?
- How are decimal numbers different from whole numbers?
- How do we compare decimals?

#### Essential Knowledge:

- Decimals can make it easy to estimate.

#### 4. Decimals - Place value and multiplication and division

##### Standards:

- Perform operations with multi-digit whole numbers and with decimals to hundredths.
- Understand the place value system.

##### Essential Question:

- Which operation do I do first, second and third to solve a problem correctly?
- How are formulas similar to algebraic expressions?

##### Essential Knowledge:

- Students will realize that exponents come first, then parenthesis, then multiplication/division then addition/subtraction.

#### 5. Fractions and Decimals - Simplifying Fractions, Mixed Number, Writing Decimals as a fraction and writing fractions as a decimal

##### Standards:

- Use equivalent fractions as a strategy to add and subtract fractions.
- Apply and extend previous understandings of multiplication and division to multiply and divide fractions.

##### Essential Question:

- How are fractions and decimals the same?
- How are fractions and decimals different?

##### Essential Knowledge:

- Express Fractions in the simplest form
- Find the least common multiple of 2 or more numbers
- Compare and order fractions
- Write decimals as a fractions and fractions as decimals

#### 6. Integers

##### Standards:

- Use properties of operations to generate equivalent expressions.
- Solve real-life and mathematical problems using numerical and algebraic expressions and equations.

##### Essential Question:

- Do positive and negative numbers have the same value

**Essential Knowledge:**

- Graphing integers on a number line
- Graphing integers on a square

**7. Algebra: Solving Equations****Standards:**

- Apply and extend previous understandings of arithmetic to algebraic expressions
- Reason about and solve one-variable equations and inequalities

**Essential Question:**

- How do I identify which step to do first
- When do I apply this to real life?

**Essential Knowledge:**

- The Associative, Commutative, Distributive and Identity Properties are basic properties that assist in solving equations
- Solving multiplication equations
- Solving two step equations

