

**URBANDALE COMMUNITY SCHOOL DISTRICT  
CURRICULUM FRAMEWORK OUTLINE**

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<b>SUBJECT:</b>	<b>Mathematics</b>
<b>COURSE TITLE:</b>	<b>General Math</b>
	<b>2 Credits/2 Semesters</b>

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**COURSE DESCRIPTION:**

General Math is designed to develop and improve a student's arithmetic computation skills. An attempt is made to introduce students to everyday situations in which they will use these skills. A secondary purpose is to prepare students for Algebra 1A.

**STANDARDS AND COURSE BENCHMARKS WITH INDICATORS:**

**In order that our students may achieve the maximum benefit from their talents and abilities, the students of Urbandale Community School District's General Math course should be able to...**

**Standard I: Understand the real and complex number systems.**

**Benchmark: Perform arithmetic operations with complex numbers. Iowa Core: HSN.CN.1, 2**

Indicators:

- Divide multi-digit numbers.
- Add and subtract multi-digit decimals.
- Multiply and divide multi-digit decimals.
- Find the greatest common factors of two whole numbers.
- Find the least common multiple of two whole numbers less than or equal to 12.
- Use the distributive property to find the sum of two whole numbers less than or equal to 100.

**Standard II: Understand quantities.**

**Benchmark: Reason quantitatively and use units to solve problems. Iowa Core: HSN.Q. 1**

Indicators:

- Use integers to describe opposites.
- Use integers to represent real world situations.
- Use a number line to locate integers.
- Recognize that subtracting a negative results in the number itself.
- Compare integers using a number line.
- Compare rational numbers using a number line.
- Find the area of a rectangle.
- Use formulas to find area of real world problems.

**Standard III: Understand the use of expressions.**

**Benchmarks: Write expressions in equivalent forms to solve problems. Iowa Core: HSA.SSE.4**

Indicator:

- Write a numerical expression.
- Evaluate a numerical expression.
- Write an expression using variables.
- Identify parts of an expression.
- Describe an expression in more than one way.
- Solve an expression that includes a variable(s).
- Apply the order of operations to solve a problem.
- Combine terms to simplify an expression into an equivalent expression.
- Identify when two expressions are equal.

**Benchmark: Rewrite rational expressions. Iowa Core: HSA.APR.6, 7**

Indicator: Demonstrate an understanding of the meaning of a ratio.

Use ratios to compare two quantities.  
Demonstrate an understanding of the concept of a unit rate.  
Apply unit rates to real world problems.  
Find equivalent ratios.  
Demonstrate an understanding of the concept of a percent.  
Convert measurement.  
Convert between whole numbers, fractions, decimals, and percent.  
Use properties to add and subtract rational numbers.

**Standard V: Demonstrate reasoning with equations and inequalities.**

**Benchmark: Represent and solve equations and inequalities graphically. Iowa Core: HSA.REI.11**

Indicators: Explain what a variable represents.  
Graph an inequality on a number line.  
Solve equations.

**Standard VI: Understand functions.**

**Benchmark: Model periodic phenomena with trigonometric functions. Iowa Core: HSF.TF.5**

Indicator: Choose trigonometric functions to model periodic phenomena with specified amplitude, frequency, and midline.

**Standard VII: Understand statistics & probability.**

**Benchmarks: Summarize, represent, and interpret data on a single count or measurement variable. Iowa Core: HSS.ID.4**

Indicators: Describe the center and spread of a set of data.  
Find the mean, median, mode, and range of a set of data.  
Display data using a number line, dot plots, histograms, and box plots.  
Identify when to use the mean, median, or mode to describe a data set.

No student enrolled in the Urbandale Community School District shall be excluded from participation in, be denied the benefits of, or be subjected to discrimination in the District's programs on the basis of race, color, creed, sex, religion, marital status, ethnic background, national origin, disability, sexual orientation, gender identity, or socio-economic background. The policy of the District shall be to provide educational programs and opportunities for students as needed on the basis of individual interests, values, abilities and potential.