

Common Core State Standards for Mathematics

PowerZone Upper Math Series Correlation

- **Grades: 6, 7, & 8**
- **Number Skills 1**
- **Number Skills 2**
- **Algebra Preparation**
- **Geometry & Measurement**
- **Data Analysis & Probability**
- **Comprehensive Review**

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Technology to Inspire Learning

Common Core State Standards for Mathematics PowerZone Upper Math Correlation

The PowerZone Upper Math Series consists of six Content Set titles for grades six, seven, and eight.

Number Skills 1

Number Skills 2

Algebra Preparation

Geometry & Measurement

Data Analysis & Probability

Comprehensive Review

The following pages represent the correlation of PowerZone Upper Math topics to the Common Core State Standards for Mathematics. Each grade has a one-page correlation chart. Following the three correlation pages are additional pages that display “Pick the Question Mix” screen shots. Each screen shot includes PowerZone topics for a specific Content Set title. The Comprehensive Review Content Set is a special question set that includes a limited number of questions for each math topic addressed in the other five Upper Math Series titles.

Prior to using the software in a PowerZone classroom session, teachers have the option to select specific questions by using the “Pick the Question Mix” capability. First, teachers may select any combination of topics and then preview and turn individual questions “off” or back “on”. The correlation chart facilitates selection of topics and questions related to the Common Core State Standards.

An optional Toolkit is available, which allows teachers to author and add questions to Content Sets. Teachers can organize and save authored questions by Common Core State Standards or by other standards and organizational structures as desired. Authored questions are accessible from the “Bonus Questions” button, during a PowerZone session.

Common Core Math - Grade 6 Overview

Ratios and Proportional Relationships

- Understand ratio concepts and use ratio reasoning to solve problems.

The Number System

- Apply and extend previous understandings of multiplication and division to divide fractions by fractions.
- Compute fluently with multi-digit numbers and find common factors and multiples.
- Apply and extend previous understandings of numbers to the system of rational numbers.

Expressions & Equations

- Apply and extend previous understandings of arithmetic to algebraic expressions.
- Reason about and solve one-variable equations and inequalities.
- Represent and analyze quantitative relationships between dependent and independent variables.

Geometry

- Solve real-world and mathematical problems involving area, surface area, and volume.

Statistics and Probability

- Develop understanding of statistical variability.
- Summarize and describe distributions.

PowerZone Math - Grade 6 Overview

Ratios and Proportional Relationships

- PowerZone, Number Skills 2, Topics: 1, 4, 5*

The Number System

- PowerZone, Number Skills 2, Topics: 2, 3
- PowerZone, Number Skills 1, Topics: 2, 3, 4, 5
- PowerZone, Number Skills 1, Topic: 1

Expressions & Equations

- PowerZone, Algebra Preparation, Topics: 1, 4
- PowerZone, Algebra Preparation, Topic: 3
- PowerZone, Algebra Preparation, Topic: 2

Geometry

- PowerZone, Geometry & Measurement, Topics: 1, 2, 3

Statistics and Probability

- PowerZone, Data Analysis & Probability, Topic: 2
- PowerZone, Data Analysis & Probability, Topics: 1, 3

Note: The Comprehensive Review Content Set is a special question set that includes a limited number of questions for each math topic addressed in all five Upper Math Series titles referenced in the above correlation.

***For PowerZone topic names, see “Pick the Question Mix” screens**

Common Core Math - Grade 7 Overview

Ratios and Proportional Relationships

- Analyze proportional relationships and use them to solve real-world and mathematical problems.

The Number System

- Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.

Expressions & Equations

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

Geometry

- Draw, construct, and describe geometrical figures and describe relationships between them.
- Solve real-life and mathematical problems involving angle measure, area, surface area, and volume.

Statistics and Probability

- Use random sampling to draw inferences about a population.
- Draw informal comparative inferences about two populations.
- Investigate chance processes and develop, use, and evaluate probability models.

PowerZone Math - Grade 7 Overview

Ratios and Proportional Relationships

- PowerZone, Number Skills 2, Topics: 1, 4*

The Number System

- PowerZone, Number Skills 1, Topics: 3, 4, 5
- PowerZone, Number Skills 2, Topics: 2, 3, 5

Expressions & Equations

- PowerZone, Algebra Preparation, Topics: 2, 3, 4
- PowerZone, Algebra Preparation, Topic: 1

Geometry

- PowerZone, Geometry & Measurement, Topic: 1
- PowerZone, Geometry & Measurement, Topic: 2, 3

Statistics and Probability

- PowerZone, Data Analysis & Probability, Topics: 2, 3
- PowerZone, Data Analysis & Probability, Topic: 4

Note: The Comprehensive Review Content Set is a special question set that includes a limited number of questions for each math topic addressed in all five Upper Math Series titles referenced in the above correlation.

***For PowerZone topic names, see “Pick the Question Mix” screens.**

Common Core Math - Grade 8 Overview

The Number System

- Know that there are numbers that are not rational, and approximate them by rational numbers.

Expressions & Equations

- Work with radicals and integer exponents.
- Understand the connections between proportional relationships, lines, and linear equations.
- Analyze and solve linear equations and pairs of simultaneous linear equations.

Functions

- Define, evaluate, and compare functions.
- Use functions to model relationships between quantities.

Geometry

- Understand congruence and similarity using physical models, transparencies, or geometry software.
- Understand and apply the Pythagorean Theorem.
- Solve real-world and mathematical problems involving volume of cylinders, cones, and spheres.

Statistics and Probability

- Investigate patterns of association in bivariate data.

PowerZone Math - Grade 8 Overview

The Number System

Expressions & Equations

- PowerZone, Number Skills 1, Topic: 1
- PowerZone, Algebra Preparation, Topic: 2
- PowerZone, Algebra Preparation, Topics: 3, 4

Functions

- PowerZone, Algebra Preparation, Topic: 2
- PowerZone, Algebra Preparation, Topic: 2

Geometry

- PowerZone, Geometry & Measurement, Topic: 1
- PowerZone, Geometry & Measurement, Topic: 2

Statistics and Probability

- PowerZone, Data Analysis & Probability, Topics: 1, 2, 3, 4

Note: The Comprehensive Review Content Set is a special question set that includes a limited number of questions for each math topic addressed in all five Upper Math Series titles referenced in the above correlation.

***For PowerZone topic names, see “Pick the Question Mix” screens.**

PowerZone Upper Math Series Number Skills 1 (Screen 1)

Pick the Question Mix

☐ Number Skills 1

	On	Off
<input type="checkbox"/> Topic 1		
<input type="checkbox"/> Level 1 Place Value	13	0
<input type="checkbox"/> Level 2 Place Value	14	0
<input type="checkbox"/> Level 3 Place Value	8	0
<input type="checkbox"/> Topic 2		
<input type="checkbox"/> Level 1 Addition and Subtraction of Whole Numbers	8	0
<input type="checkbox"/> Level 2 Addition and Subtraction of Whole Numbers	6	0
<input type="checkbox"/> Level 3 Addition and Subtraction of Whole Numbers	6	0
<input type="checkbox"/> Topic 3		
<input type="checkbox"/> Level 1 Multiplication and Division of Whole Numbers	16	0
<input type="checkbox"/> Level 2 Multiplication and Division of Whole Numbers	17	0
<input type="checkbox"/> Level 3 Multiplication and Division of Whole Numbers	12	0
<input type="checkbox"/> Topic 4		
<input type="checkbox"/> Level 1 Addition and Subtraction of Decimals	6	0
<input type="checkbox"/> Level 2 Addition and Subtraction of Decimals	6	0
<input type="checkbox"/> Level 3 Addition and Subtraction of Decimals	6	0

back forward done

PowerZone Upper Math Series Number Skills 2 (Screen 1)

Pick the Question Mix

☐ Number Skills 2

	On	Off
<input type="checkbox"/> Topic 1		
<input type="checkbox"/> Level 1 Factoring	11	0
<input type="checkbox"/> Level 2 Factoring	10	0
<input type="checkbox"/> Level 3 Factoring	12	0
<input type="checkbox"/> Topic 2		
<input type="checkbox"/> Level 1 Fractions	11	0
<input type="checkbox"/> Level 2 Fractions	16	0
<input type="checkbox"/> Level 3 Fractions	11	0
<input type="checkbox"/> Topic 3		
<input type="checkbox"/> Level 1 Mixed Numbers	9	0
<input type="checkbox"/> Level 2 Mixed Numbers	10	0
<input type="checkbox"/> Level 3 Mixed Numbers	10	0
<input type="checkbox"/> Topic 4		
<input type="checkbox"/> Level 1 Ratios and Proportion	6	0
<input type="checkbox"/> Level 2 Ratios and Proportion	6	0
<input type="checkbox"/> Level 3 Ratios and Proportion	8	0

back forward done

PowerZone Upper Math Series Number Skills 1 (Screen 2)

Pick the Question Mix

☐ Number Skills 1

	On	Off
<input type="checkbox"/> Topic 5		
<input type="checkbox"/> Level 1 Multiplication and Division of Decimals	11	0
<input type="checkbox"/> Level 2 Multiplication and Division of Decimals	17	0
<input type="checkbox"/> Level 3 Multiplication and Division of Decimals	17	0

back forward done

PowerZone Upper Math Series Number Skills 2 (Screen 2)

Pick the Question Mix

☐ Number Skills 2

	On	Off
<input type="checkbox"/> Topic 5		
<input type="checkbox"/> Level 1 Percent	7	0
<input type="checkbox"/> Level 2 Percent	10	0
<input type="checkbox"/> Level 3 Percent	15	0

back forward done

PowerZone Upper Math Series Algebra Preparation

Pick the Question Mix

<input type="checkbox"/> Algebra Preparation		
<input type="checkbox"/> Topic 1		On Off
<input type="checkbox"/> Level 1 Story Problems		<u>7</u> 0
<input type="checkbox"/> Level 2 Story Problems		<u>7</u> 0
<input type="checkbox"/> Level 3 Story Problems		<u>10</u> 0
<input type="checkbox"/> Topic 2		
<input type="checkbox"/> Level 1 Relations		<u>6</u> 0
<input type="checkbox"/> Level 2 Relations		<u>7</u> 0
<input type="checkbox"/> Level 3 Relations		<u>8</u> 0
<input type="checkbox"/> Topic 3		
<input type="checkbox"/> Level 1 Equations		<u>19</u> 0
<input type="checkbox"/> Level 2 Equations		<u>11</u> 0
<input type="checkbox"/> Level 3 Equations		<u>7</u> 0
<input type="checkbox"/> Topic 4		
<input type="checkbox"/> Level 1 Operations		<u>12</u> 0
<input type="checkbox"/> Level 2 Operations		<u>18</u> 0
<input type="checkbox"/> Level 3 Operations		<u>15</u> 0

back forward done

PowerZone Upper Math Series Data Analysis & Probability

Pick the Question Mix

<input type="checkbox"/> Data Analysis & Probability		
<input type="checkbox"/> Topic 1		On Off
<input type="checkbox"/> Level 1 Graphing		<u>8</u> 0
<input type="checkbox"/> Level 2 Graphing		<u>10</u> 0
<input type="checkbox"/> Level 3 Graphing		<u>7</u> 0
<input type="checkbox"/> Topic 2		
<input type="checkbox"/> Level 1 Mean, Median, and Mode		<u>13</u> 0
<input type="checkbox"/> Level 2 Mean, Median, and Mode		<u>7</u> 0
<input type="checkbox"/> Level 3 Mean, Median, and Mode		<u>7</u> 0
<input type="checkbox"/> Topic 3		
<input type="checkbox"/> Level 1 Data Analysis		<u>7</u> 0
<input type="checkbox"/> Level 2 Data Analysis		<u>12</u> 0
<input type="checkbox"/> Level 3 Data Analysis		<u>14</u> 0
<input type="checkbox"/> Topic 4		
<input type="checkbox"/> Level 1 Probability		<u>10</u> 0
<input type="checkbox"/> Level 2 Probability		<u>16</u> 0
<input type="checkbox"/> Level 3 Probability		<u>20</u> 0

back forward done

PowerZone Upper Math Series Geometry & Measurement

Pick the Question Mix

<input type="checkbox"/> Geometry & Measurement		
<input type="checkbox"/> Topic 1		On Off
<input type="checkbox"/> Level 1 Geometry		<u>55</u> 0
<input type="checkbox"/> Level 2 Geometry		<u>11</u> 0
<input type="checkbox"/> Level 3 Geometry		<u>13</u> 0
<input type="checkbox"/> Topic 2		
<input type="checkbox"/> Level 1 Length, Area, and Volume		<u>14</u> 0
<input type="checkbox"/> Level 2 Length, Area, and Volume		<u>12</u> 0
<input type="checkbox"/> Level 3 Length, Area, and Volume		<u>9</u> 0
<input type="checkbox"/> Topic 3		
<input type="checkbox"/> Level 1 Units of Measurement		<u>6</u> 0
<input type="checkbox"/> Level 2 Units of Measurement		<u>6</u> 0
<input type="checkbox"/> Level 3 Units of Measurement		<u>6</u> 0

back forward done

PowerZone Upper Math Series Comprehensive Review (Screen 1)

Pick the Question Mix

☐ Comprehensive Review

☐ Level 1 Topics (Page 1)

	On	Off
<input type="checkbox"/> Place Value	2	0
<input type="checkbox"/> Addition and Subtraction of Whole Numbers	2	0
<input type="checkbox"/> Multiplication and Division of Whole Numbers	2	0
<input type="checkbox"/> Addition and Subtraction of Decimals	2	0
<input type="checkbox"/> Multiplication and Division of Decimals	2	0
<input type="checkbox"/> Factoring	2	0
<input type="checkbox"/> Fractions	2	0
<input type="checkbox"/> Mixed Numbers	2	0
<input type="checkbox"/> Ratios and Proportion	2	0
<input type="checkbox"/> Percent	2	0
<input type="checkbox"/> Geometry	2	0
<input type="checkbox"/> Length, Area, and Volume	2	0
<input type="checkbox"/> Units of Measurement	2	0
<input type="checkbox"/> Algebra Story Problems	2	0
<input type="checkbox"/> Algebra Relations	2	0
<input type="checkbox"/> Algebra Equations	2	0

back forward done

PowerZone Upper Math Series Comprehensive Review (Screen 3)

Pick the Question Mix

☐ Comprehensive Review

☐ Level 2 Topics (Page 2)

	On	Off
<input type="checkbox"/> Geometry	2	0
<input type="checkbox"/> Length, Area, and Volume	2	0
<input type="checkbox"/> Units of Measurement	2	0
<input type="checkbox"/> Algebra Story Problems	2	0
<input type="checkbox"/> Algebra Relations	2	0
<input type="checkbox"/> Algebra Equations	2	0
<input type="checkbox"/> Algebra Operations	2	0
<input type="checkbox"/> Graphing	2	0
<input type="checkbox"/> Mean, Median, and Mode	2	0
<input type="checkbox"/> Data Analysis	2	0
<input type="checkbox"/> Probability	2	0

☐ Level 3 Topics (Page 1)

<input type="checkbox"/> Place Value	2	0
<input type="checkbox"/> Addition and Subtraction of Whole Numbers	2	0
<input type="checkbox"/> Multiplication and Division of Whole Numbers	2	0
<input type="checkbox"/> Addition and Subtraction of Decimals	2	0
<input type="checkbox"/> Multiplication and Division of Decimals	2	0

back forward done

PowerZone Upper Math Series Comprehensive Review (Screen 2)

Pick the Question Mix

☐ Comprehensive Review

☐ Level 1 Topics (Page 2)

	On	Off
<input type="checkbox"/> Algebra Operations	2	0
<input type="checkbox"/> Graphing	2	0
<input type="checkbox"/> Mean, Median, and Mode	2	0
<input type="checkbox"/> Data Analysis	2	0
<input type="checkbox"/> Probability	2	0

☐ Level 2 Topics (Page 1)

<input type="checkbox"/> Place Value	2	0
<input type="checkbox"/> Addition and Subtraction of Whole Numbers	2	0
<input type="checkbox"/> Multiplication and Division of Whole Numbers	2	0
<input type="checkbox"/> Addition and Subtraction of Decimals	2	0
<input type="checkbox"/> Multiplication and Division of Decimals	2	0
<input type="checkbox"/> Factoring	2	0
<input type="checkbox"/> Fractions	2	0
<input type="checkbox"/> Mixed Numbers	2	0
<input type="checkbox"/> Ratios and Proportion	2	0
<input type="checkbox"/> Percent	2	0

back forward done

PowerZone Upper Math Series Comprehensive Review (Screen 4)

Pick the Question Mix

☐ Comprehensive Review

☐ Level 3 Topics (Page 2)

	On	Off
<input type="checkbox"/> Factoring	2	0
<input type="checkbox"/> Fractions	2	0
<input type="checkbox"/> Mixed Numbers	2	0
<input type="checkbox"/> Ratios and Proportion	2	0
<input type="checkbox"/> Percent	2	0
<input type="checkbox"/> Geometry	2	0
<input type="checkbox"/> Length, Area, and Volume	2	0
<input type="checkbox"/> Units of Measurement	2	0
<input type="checkbox"/> Algebra Story Problems	2	0
<input type="checkbox"/> Algebra Relations	2	0
<input type="checkbox"/> Algebra Equations	2	0
<input type="checkbox"/> Algebra Operations	2	0
<input type="checkbox"/> Graphing	2	0
<input type="checkbox"/> Mean, Median, and Mode	2	0
<input type="checkbox"/> Data Analysis	2	0
<input type="checkbox"/> Probability	2	0

back forward done