Curriculum Outline

This is a working draft of the IM 6–8 Math Accelerated certified by Illustrative Mathematics curriculum outline. The curriculum compacts the 3 years of IM 6–8 Math into two courses starting in grade 6. While we don't expect the standards addressed in a unit to change, it is possible that titles will be revised or the total number of sections in a unit will change.

Each course has 9 units planned with the first course focusing on grade 6 and some of grade 7 and the second course focusing on the rest of grade 7 and grade 8. Similar to IM 6–8 Math, the last unit in each course includes optional lessons that teachers may choose to use at different points in the year. For each unit in this outline, we have included a title, section titles, and the standard(s) aligned at the cluster level that we plan to address in the section.

KEY

Composed of content from grade 7 unit 1 and grade 8 unit 2 in original IM 6–8 Math

Unit 2: Scale Drawings, Similarity, and Slope (7.1, 8.2)

A: Scaled Copies
- 7.G.A

B: Scale Drawings
- 7.G.A

Main Common Core standards addressed in the section
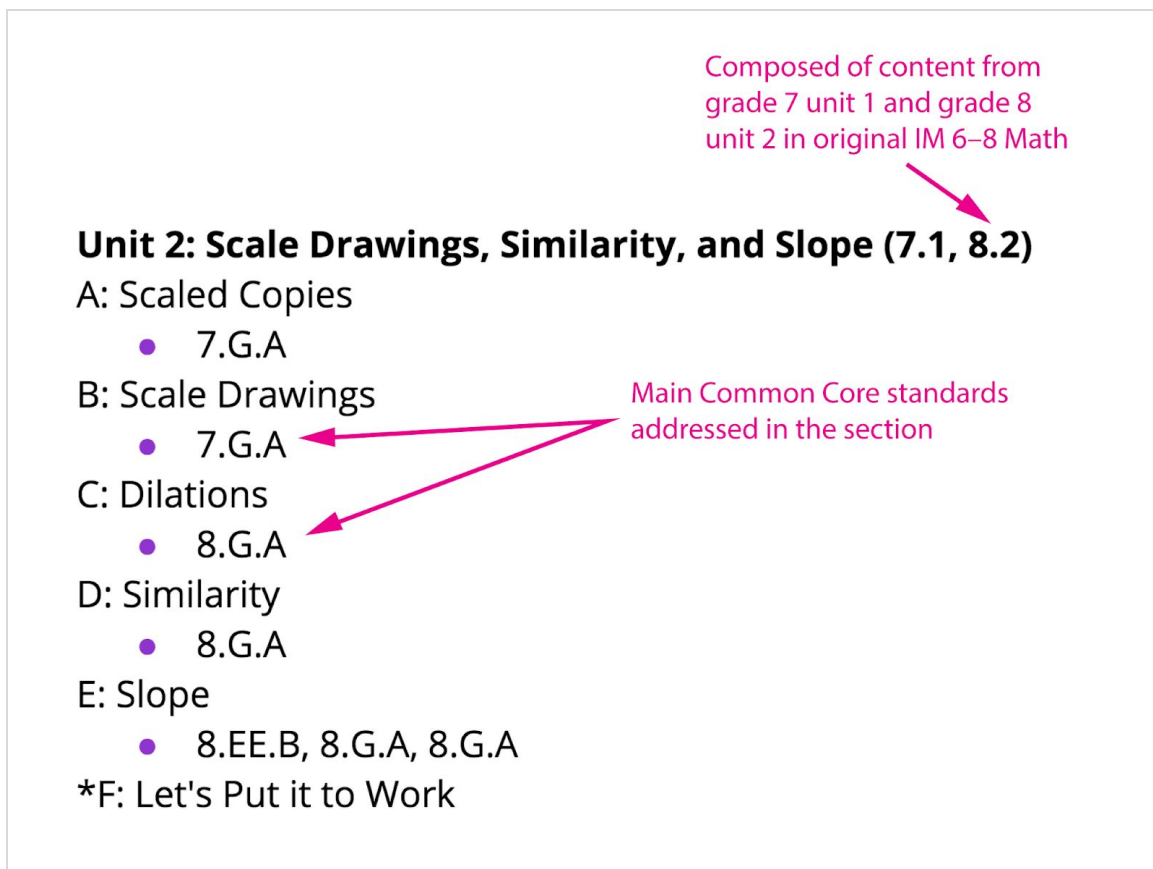
C: Dilations
- 8.G.A

D: Similarity
- 8.G.A

E: Slope
- 8.EE.B, 8.G.A, 8.G.A

*F: Let's Put it to Work

* indicates optional sections or units

Accelerated Grade 6

Unit 1: Areas (Equivalent Units from IM 6–8 Math: 6.1A–E,G)

A: Reasoning to Find Area
- 6.G.A

B: Parallelograms
- 6.G.A

C: Triangles
- 6.G.A

D: Surface Area
- 6.G.A

*E: Let's Put It to Work

Unit 2: Ratios, Rates, and Percentages (6.2, 6.3)

A: What Are Ratios?
- 6.RP.A

B: Representing Equivalent Ratios
- 6.RP.A

C: Rates
- 6.RP.A

D: Percentages
- 6.RP.A

*E: Let's Put It to Work

Unit 3: Fractions and Decimals (6.4, 6.5)

A: Making Sense of Division
- 6.NS.A

B: Dividing Fractions
- 6.NS.A

C: Fractions in Lengths, Areas, and Volumes
- 6.NS.A, 6.G.A

D: Warming Up to Decimals
- 6.NS.B

E: Dividing Decimals
- 6.NS.B

*F: Let's Put It to Work

Unit 4: Equations and Expressions (6.1F, 6.6)

A: Equations in One Variable
- 6.EE.A

B: Equal and Equivalent
- 6.EE.A, 6.EE.B

C: Expressions with Exponents
- 6.EE.A, 6.EE.B

D: Relationships Between Quantities
- 6.EE.C

*E: Let's Put It to Work

Unit 5: Proportional Relationships (7.2, 7.3)

A: Representing Proportional Relationships with Equations
- 7.G.A, 7.RP.A

B: Comparing Proportional and Nonproportional Relationships
- 7.RP.A

C: Representing Proportional Relationships with Graphs
- 7.RP.A

D: Circumference of a Circle
- 7.G.A, 7.G.B, 7.RP.A

E: Area of a Circle
- 7.G.B

*F: Let's Put It to Work

Unit 6: Percentage Increase and Decrease (7.4)

A: Proportional Relationships with Fractions
- 7.RP.A

B: Percent Increase and Decrease
- 7.RP.A

C: Applying Percentages
- 7.RP.A

*D: Let's Put It to Work

Unit 7: Rational Numbers (6.7, 7.5)
A: Negative Numbers and Absolute Value
- 6.NS.C

B: The Coordinate Plane
- 6.NS.C, 6.G.A

C: Adding and Subtracting Rational Numbers
- 7.NS.A

D: Multiplying and Dividing Rational Numbers
- 7.NS.A

E: Solving Equations When There are Rational Numbers
- 7.NS.A, 7.EE.B

*F: Let's Put It to Work

Unit 8: Data Sets and Sampling (6.8, 7.8)
A: Dot Plots and Histograms
- 6.SP.B

B: Measures of Center and Variability
- 6.SP.A

C: Sampling
- 7.SP.A

*D: More Data Displays
- 6.SP.B, 7.SP.B

*E: Probability
- 7.SP.C

*E: Let's Put It to Work

*Unit 9: Putting It All Together (6.9, 7.9)
*A: Making Connections
*B: Voting
*C: Designing a Course

Accelerated Grade 7

Unit 1: Rigid Transformations and Congruence (8.1, 7.7AB)

A: Rigid Transformations
- 8.G.A

B: Properties of Rigid Transformations
- 8.G.A

C: Congruence
- 8.G.A

D: Angles in a Triangle
- 8.G.A, 7.G.B

E: Drawing Polygons with Given Conditions
- 7.G.A

*F: Let's Put It to Work

Unit 2: Scale Drawings, Similarity, and Slope (7.1, 8.2)

A: Scaled Copies
- 7.G.A

B: Scale Drawings
- 7.G.A

C: Dilations
- 8.G.A

D: Similarity
- 8.G.A

E: Slope
- 8.EE.B, 8.G.A, 8.G.A

*F: Let's Put It to Work

Unit 3: Writing and Solving Equations (7.6AB)

A: Representing Situations of the Form px + q = r and p(x+q)=r
- 7.EE.B

B: Solving Equations of the Form px+q = r and p(x+q) = r and Problems That Lead to Those Equations
- 7.EE.A, 7.EE.B

Unit 4: Inequalities, Expressions, and More Equations (6.7B, 7.6CD, 8.4B)
A: Inequalities
- 6.EE.B
- 7.EE.B

B: Writing Equivalent Expressions
- 7.NS.A

C: Equations in One Variable
- 8.EE.C

*D: Let's Put It to Work

Unit 5: Linear Relationships (8.3, 8.4C, 8.6)
A: Proportional Relationships
- 8.EE.B

B: Representing Linear Relationships
- 8.EE.B, 8.G.A

C: Slopes and Equations
- 8.EE.B, 8.EE.C

D: Systems of Linear Equations
- 8.EE.C

E: Associations in Numerical Data
- 8.SP.A

*F: Associations in Categorical Data
- 8.SP.A

*G: Let's Put It to Work

Unit 6: Functions and Volume (7.7CD, 8.5)
A: Inputs and Outputs
- 8.F.A

B: Representing and Interpreting Function
- 8.F.A, 8.F.B

C: Linear Functions and Rates of Change
- 8.F.A, 8.F.B

D: Prisms, Cylinders, and Cones
- 8.F.B, 7.G.A, 7.G.B, 8.G.C

E: Dimensions and Spheres
- 8.G.C

*F: Let's Put It to Work

Unit 7: Exponents and Scientific Notation (8.7)

A: Exponent Review

B: Exponent Rules

- 8.EE.A

C: Scientific Notation

- 8.EE.A

*D: Let's Put It to Work

Unit 8: Pythagorean Theorem and Irrational Numbers (8.8)

A: Side Lengths and Areas of Squares

- 8.NS.A, 8.EE.A

B: The Pythagorean Theorem

- 8.G.B, 8.EE.A, 8.NS.A

D: Decimal Representation of Rational and Irrational Numbers

- 8.NS.A, 8.NS.A, 8.EE.A

*E: Let's Put It to Work

*Unit 9: Putting It All Together (7.9, 8.9)

*A: Tessellations

*B: Running a Restaurant

*C: Making Connections

*D: The Weather