

SDUSD San Diego Enhanced Mathematics Prioritization for Fall 2020 and Beyond

Read more about the SDUSD Math Leadership Team process [here](#).

DRAFT 20-21 Year-At-A-Glance

6th Grade Math									
Unit Title:	Area and Surface Area	Introducing Ratios	Unit Rates and Percentages	Dividing Fractions	Arithmetic in Base Ten	Expressions and Equations	Rational Numbers	Data Sets and Distributions	Putting It All Together
Pacing and Start Date	4 weeks 9 Lessons	4 weeks 8 Lessons	4 weeks 9 Lessons	4 weeks 6 Lessons	4 weeks 8 Lessons	4 weeks 9 Lessons	4 weeks 8 Lessons	4 weeks 9 Lessons	2 weeks 5 Lessons
Unit Narratives	Unit 1 Area and Surface Area	Unit 2 Introducing Ratios	Unit 3 Unit Rates and Percentages	Unit 4 Dividing Fractions	Unit 5 Arithmetic in Base Ten	Unit 6 Expressions and Equations	Unit 7 Rational Numbers	Unit 8 Data Sets and Distributions	Unit 9 Putting It All Together
IM Priority Lessons	6.1 Lessons (1, 2), 3, (4, 5, 6), (7,8), (9,10), 11, (12, 13, 14), 16, (17, 18)	6.2 Lessons (1,2), 3,(4,5), (6,7), 8, (9,10) (11,12,13),14	6.3 Lessons (1,2), (3,4), (5,6,7), 9, 10, (11,12), 13, 14, (15, 16)	6.4 Lessons (1,2, 3), (4,6, 7, 8) (10,11), (12, 13), (14, 15), 16	6.5 Lessons 1, (2, 3, 4), (5, 6), (7, 8), (9, 10), (11, 12), 13, 14, 15	6.6 Lessons (1,2), (3, 4, 5), 6, (7, 8), (9,10,11), (12, 13), (14, 15), (16, 17), (18, 19)	6.7 Lessons 1, (2, 3, 4), (5, 6), (8, 9, 10), 11, (12, 13), (14, 15), 19	6.8 Lessons (1, 2), 3, (4, 5), (6, 7, 8), (9, 10), 13, 14, (15, 16, 17), 18	6.9 Lessons 1, 2, 4, 5, 6
Unit Assessment									
Unit Project									

*The Year-At-A-Glance will be updated as more information and content is released from Illustrative Mathematics.

*******Note:** Any lessons in parentheses are recommended to be combined into a single “lesson” by pulling core activities together.
 For example: A1.2 lesson 1, 2, 3, (4, 5), (6, 7), (8, 9), 10 is equivalent to 7 lessons, where lessons (4, 5), (6, 7), and (8, 9) are each combined into single “lessons”.

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Below you can find the 19 -20 Year-at-a-Glance from 19-20 for comparison:

19-20 YAG =147 Lessons
 20-21 YAG =71 Lessons

19-20 Year-At-A-Glance

6th Grade Math										
Unit Title:	Unit 0 Week of Inspiration	Unit 1 Area and Surface Area	Unit 2 Introducing Ratios	Unit 3 Unit Rates and Percentages	Unit 4 Dividing Fractions	Unit 5 Arithmetic in Base Ten	Unit 6 Expressions and Equations	Unit 7 Rational Numbers	Unit 8 Data Sets and Distributions	Unit 9 Putting It All Together
Pacing and Start Date	1 week 8/26/19	5 weeks 19 Lessons	4 weeks 17 Lessons	4 weeks 17 Lessons	5 weeks 17 Lessons	4 weeks 15 Lessons	4 weeks 19 Lessons	4 weeks 19 Lessons	4 weeks 18 Lessons	2 weeks 6 Lessons
Unit Overview	Building high quality relationships, community, and the love for math through Jo Boaler's Week of Inspirational Math.	Reasoning to Find Area, Parallelograms, Traingles, Polygons, Surface Area, Squares and Cubes	What are Ratios?, Equivalent Ratios, Representing Equivalent Ratios, Solving Ratio and Rate Problems, Part-part-whole Ratios	Units of Measurement, Unit Conversion, Rates, Percentages	Making Sense of Division, Meanings of Fraction Division, Algorithm for Fraction Division, Fractions in Lengths, Areas, and Volumes	Warming Up to Decimals, Adding and Subtracting Decimals, Multiplying Decimals, Dividing Decimals	Equations in One Variable, Equal and Equivalent, Expressions with Exponents, Relationships Between Quantities	Negative Numbers and Absolute Value, Inequalities, The Coordinate Plane, Common Factors and Common Multiples	Data, Variability, and Statistical Questions, Dot Plots, Histograms, Mean, MAD, Median, IQR	Making Connections

Prioritized Unit Narratives

Unit 1 Area and Surface Area	In this unit, students reason about area and start to understand and apply concepts of surface area. Students build on their knowledge from previous grades about finding the areas of rectangles to find the areas of polygons by decomposing and rearranging them to make figures whose areas they can determine. They learn strategies for finding areas of parallelograms and triangles, and develop formulas for these areas, using geometric properties to justify the correctness of these formulas. They use these formulas to solve problems. They understand that any polygon can be decomposed into triangles, and use this knowledge to find areas of various polygons. Students find the surface areas of polyhedra with triangular and rectangular surfaces. They study, assemble, and draw nets for polyhedra and use nets to determine surface areas.
Unit 2 Introducing Ratios	In this unit, students learn to understand and use the terms “ratio,” “rate,” “equivalent ratios,” “per,” “at this rate,” “constant speed,” and “constant rate,” and to recognize when two ratios are or are not equivalent. They represent ratios as expressions, and represent equivalent ratios with double number line diagrams, tape diagrams, and tables. They use these terms and representations in reasoning about situations involving color mixtures, recipes, unit pricing, and constant speed.
Unit 3 Unit Rates and Percentages	
Unit 4 Dividing Fractions	
Unit 5 Arithmetic in Base Ten	
Unit 6 Expressions and Equations	
Unit 7 Rational Numbers	
Unit 8 Data Sets and Distributions	
Unit 9 Putting It All Together	

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DRAFT 20-21 Year-At-A-Glance

7th Grade Math									
Unit Title:	Unit 1 Scale Drawings	Unit 2 Introducing Proportional Relationships	Unit 3 Measuring Circles	Unit 4 Proportional Relationships and Percentages	Unit 5 Rational Number Arithmetic	Unit 6 Expressions, Equations, and Inequalities	Unit 7 Angles, Triangles, and Prisms	Unit 8 Probability and Sampling	Unit 9 Putting It All Together
Pacing and Start Date	4 weeks* 8 Lessons	4 weeks 8 Lessons	3 weeks 6 Lessons	4 weeks 8 Lessons	4 weeks 8 Lessons	5 weeks 10 Lessons	3 weeks 8 Lessons	4 weeks 10 Lessons	2 weeks 5 Lessons
Unit Narratives	Unit 1 Scale Drawings	Unit 2 Introducing Proportional Relationships	Unit 3 Measuring Circles	Unit 4 Proportional Relationships and Percentages	Unit 5 Rational Number Arithmetic	Unit 6 Expressions, Equations, and Inequalities	Unit 7 Angles, Triangles, and Prisms	Unit 8 Probability and Sampling	Unit 9 Putting It All Together
IM Priority Lessons	7.1 Lessons 1, 2, 3, (4,5), (7,8,9), 10, 12	7.2 Lessons (1,2), 3, (4,5), (7, 8), 9, (10, 11, 12), 13, 14	7.3 Lessons 1, (2,3), (4, 5), (6,7) (8,9), 10	7.4 Lessons 1, (2,3), (4,5), (6,7), 8, 10, 11, 12	7.5 Lessons 1, (2,3), (4, 5, 6), 7, 8, (9,11), (13, 14), (15,16)	7.6 Lessons 1, (2,3), 6, (7,8), 9, (11, 12), 14, (16, 17) (18, 19, 20), 23	7.7 Lessons (1, 2, 3), (4, 5), (6,7) 8, (9,10), (11, 12), (13, 14, 15), 16	7.8 Lessons (1, 2, 3, (4,5), 6, (7,8), (9, 10), (11, 12), (13, 14), (15, 16), (17, 18)	7.9
Unit Assessment									
Unit Project									

The Year-At-A-Glance will be updated as more information and content is released from Illustrative Mathematics.

*There is one additional week in Unit 1 for beginning of the year school protocols. Lessons, ect.

*******Note:** Any lessons in parentheses are recommended to be combined into a single “lesson” by pulling core activities together.

For example: A1.2 lesson 1, 2, 3, (4, 5), (6, 7), (8, 9), 10 is equivalent to 7 lessons, where lessons (4, 5), (6, 7), and (8, 9) are each combined into single “lessons”.

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Below you can find the 19 -20 Year-at-a-Glance from 19-20 for comparison:

19-20 YAG =145 Lessons
 20-21 YAG =71 Lessons

19-20 Year-At-A-Glance

7th Grade Math										
Unit Title:	Unit 0 Week of Inspiration	Unit 1 Scale Drawings	Unit 2 Introducing Proportional Relationships	Unit 3 Measuring Circles	Unit 4 Proportional Relationships and Percentages	Unit 5 Rational Number Arithmetic	Unit 6 Expressions, Equations, and Inequalities	Unit 7 Angles, Triangles, and Prisms	Unit 8 Probability and Sampling	Unit 9 Putting It All Together
Pacing and Start Date	1 week 8/26/19	5 weeks 13 Lessons	4 weeks 15 Lessons	4 weeks 11 Lessons	5 weeks 16 Lessons	4 weeks 17 Lessons	4 weeks 23 Lessons	4 weeks 17 Lessons	4 weeks 20 Lessons	2 weeks 13 Lessons
Unit Overview	Building quality relationships, community, and the love for math through Jo Boaler's Week of Inspirational Math.	Reasoning to Find Area, Parallelograms, Trainalges, Polygons, Surface Area, Squares and Cubes	What are Ratios?, Equivalent Ratios, Representing Equivalent Ratios, Solving Ratio and Rate Problems, Part-part-whole Ratios	Units of Measurement, Unit Conversion, Rates, Percentages	Making Sense of Division, Meanings of Fraction Division, Algorithm for Fraction Division, Fractions in Lengths, Areas, and Volumes	Warming Up to Decimals, Adding and Subtracting Decimals, Multiplying Decimals, Dividing Decimals	Equations in One Variable, Equal and Equivalent, Expressions with Exponents, Relationships Between Quantities	Negative Numbers and Absolute Value, Inequalities, The Coordinate Plane, Common Factors and Common Multiples	Data, Variability, and Statistical Questions, Dot Plots, Histograms, Mean, MAD, Median, IQR	Making Connections

Prioritized Unit Narratives

Unit 1 Scale Drawings	<p>In this unit, students study scaled copies of pictures and plane figures, then apply what they have learned to scale drawings, e.g., maps and floor plans. This provides geometric preparation for grade 7 work on proportional relationships as well as grade 8 work on dilations and similarity. Students begin by looking at copies of a picture, some of which are to scale and some of which are not. They use their own words to describe what differentiates scaled and non-scaled copies of a picture. As the unit progresses, students learn that all lengths in a scaled copy are multiplied by a scale factor and all angles stay the same. They draw scaled copies of figures. They learn that if the scale factor is greater than 1, the copy will be larger, and if the scale factor is less than 1, the copy will be smaller. They study how area changes in scaled copies of an image. Next, students study scale drawings. They interpret and draw maps and floor plans. They work with scales that involve units and scales that do not include units.</p>
Unit 2 Introducing Proportional Relationships	<p>In this unit, students develop the idea of a proportional relationship out of the grade 6 idea of equivalent ratios. Proportional relationships prepare the way for the study of linear functions in grade 8. Because this unit focuses on understanding what a proportional relationship is, how it is represented, and what types of contexts give rise to proportional relationships, the contexts have been carefully chosen. The first tasks in the unit employ contexts such as servings of food, recipes, constant speed, and measurement conversion, that should be familiar to students from the grade 6 course. These contexts are revisited throughout the unit as new aspects of proportional relationships are introduced.</p> <p>Associated with the contexts from the grade 6 course are derived units: miles per hour; meters per second; dollars per pound; or cents per minute. In this unit, students build on their grade 6 experiences in working with a wider variety of derived units, such as cups of flour per tablespoon of honey, hot dogs eaten per minute, and centimeters per millimeter. The tasks in this unit avoid discussion of measurement error and statistical variability, which will be addressed in later units.</p>
Unit 3 Measuring Circles	
Unit 4 Proportional Relationships and Percentages	
Unit 5 Rational Number Arithmetic	
Unit 6 Expressions, Equations, and Inequalities	
Unit 7 Angles, Triangles, and Prisms	
Unit 8	

Prioritized Unit Narratives

Probability and
Sampling

Unit 9
Putting It All Together

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DRAFT 20-21 Year-At-A-Glance

8th Grade Math									
Unit Title:	Rigid Transformations and Congruence	Dilations, Similarity, and Introducing Slope	Linear Relationships	Linear Equations and Linear Systems	Functions and Volume	Associations in Data	Exponents and Scientific Notation	Pythagorean Theorem and Irrational Numbers	Putting It All Together
Pacing and Start Date	3 weeks 7 Lessons	3 weeks 7 Lessons	4 weeks 8 Lessons	4 weeks 8 Lessons	5 weeks 10 Lessons	3 weeks 6 Lessons	3 weeks 6 Lessons	3 weeks 6 Lessons	3 weeks 6 Lessons
Unit Narratives	Unit 1 Rigid Transformations and Congruence	Unit 2 Dilations, Similarity, and Introducing Slope	Unit 3 Linear Relationships	Unit 4 Linear Equations and Linear Systems	Unit 5 Functions and Volume	Unit 6 Associations in Data	Unit 7 Exponents and Scientific Notation	Unit 8 Pythagorean Theorem and Irrational Numbers	Unit 9 Putting It All Together
IM Priority Lessons	8.1 Lessons (1,2), (3,4), 7, 8, (9,10), 11, (12, 13)	8.2 Lessons 1, (2,4), 6, (7,9), 10, (11,12) 13	8.3 Lessons (1, 2), (3, 4), 5, (6, 7), 8, (9, 10, 11), 12,4	8.4 Lessons 1, (2, 3), (5, 6), (7, 8, 9), (10, 11), (12, 13), (14, 15) 16	8.5 Lessons (1,2), 3, (4, 5, 6), 7, (8, 9), (11, 12), (13, 14, 15, 16) (17, 18), (20, 21), 2	8.6 Lessons (1,2), (3,4), (5,6), (7,8), (9, 10), 11	8.7 Lessons (1,2,3), (4, 5), (6, 7, 8), 9, (10, 11), (13, 14, 15)	8.8 Lessons (1, 2), (3, 4), (6, 7, 8), (9, 10, 11) (12, 13), (14, 15)	8.9 Lessons 1, 2, 3, 4, 5, 6
Unit Assessment									
Unit Project									

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*******Note:** Any lessons in parentheses are recommended to be combined into a single “lesson” by pulling core activities together.
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Below you can find the 19 -20 Year-at-a-Glance from 19-20 for comparison:

19-20 YAG =131 Lessons

20-21 YAG =- Lessons

19-20 Year-At-A-Glance

8th Grade Math										
Unit Title:	Unit 0 Week of Inspiration	Unit 1 Rigid Transformations and Congruence	Unit 2 Dilations; Similarity; Introducing Slope	Unit 3 Linear Relationships	Unit 4 Linear Equations and Linear Systems	Unit 5 Functions and Volume	Unit 6 Associations in Data	Unit 7 Exponents and Scientific Notation	Unit 8 Pythagorean Theorem and Irrational Numbers	Unit 9 Putting It All Together
Pacing and Start Date	1 week 8/26/19	5 weeks 17 Lessons	4 weeks 13 Lessons	4 weeks 14 Lessons	5 weeks 16 Lessons	4 weeks 22 Lessons	4 weeks 11 Lessons	4 weeks 16 Lessons	4 weeks 16 Lessons	2 weeks 6 Lessons
Unit Overview	Building high quality relationships, community, and the love for math through Jo Boaler's Week of Inspirational Math.	Reasoning to Find Area, Parallelograms, Triangles, Polygons, Surface Area, Squares and Cubes	What are Ratios?, Equivalent Ratios, Representing Equivalent Ratios, Solving Ratio and Rate Problems, Part-part-whole Ratios	Units of Measurement, Unit Conversion, Rates, Percentages	Making Sense of Division, Meanings of Fraction Division, Algorithm for Fraction Division, Fractions in Lengths, Areas, and Volumes	Warming Up to Decimals, Adding and Subtracting Decimals, Multiplying Decimals, Dividing Decimals	Equations in One Variable, Equal and Equivalent, Expressions with Exponents, Relationships Between Quantities	Negative Numbers and Absolute Value, Inequalities, The Coordinate Plane, Common Factors and Common Multiples	Data, Variability, and Statistical Questions, Dot Plots, Histograms, Mean, MAD, Median, IQR	Making Connections

Prioritized Unit Narratives

Unit 1 Rigid Transformations and Congruence	<p>In this unit students learn to understand and use the terms reflection, rotation, translation, recognizing what determines each type of transformation (two points determine a translation). They learn to understand and use the terms transformation and rigid transformation. They identify and describe translations, rotations, and reflections, and sequences of these, using the terms corresponding sides and corresponding angles, and recognizing that lengths and angle measures are preserved. They draw images of figures under rigid transformations on and off square grids and the coordinate plane. They use rigid transformations to generate shapes and to reason about measurements of figures. They learn to understand congruence of plane figures in terms of rigid transformations. They recognize when one plane figure is congruent or not congruent to another. Students use the definition of congruent and properties of congruent figures to justify claims of congruence or non-congruence.</p>
Unit 2 Dilations, Similarity, and Introducing Slope	<p>In this unit, students learn to understand and use the term “dilation,” and to recognize that a dilation is determined by a point called the “center” and a number called the “scale factor.” They learn that under a dilation, the image of a circle is a circle and the image of a line is a line parallel to the original. They draw images of figures under dilations on and off the coordinate plane. They use the terms “corresponding sides” and “corresponding angles” to describe correspondences between a figure and its dilated image, and recognizing that angle measures are preserved, but lengths are multiplied by the scale factor. They learn to understand similarity of plane figures in terms of rigid transformations and dilations. They learn to recognize when one plane figure is similar or not similar to another. They use the definition of “similar” and properties of similar figures to justify claims of similarity or non-similarity. Students learn the terms “slope” and “slope triangle,” and use the similarity of slope triangles on the same line to understand that any two distinct points on a line determine the same slope.</p>
Unit 3 Linear Relationships	
Unit 4 Linear Equations and Linear Systems	
Unit 5 Functions and Volume	
Unit 6 Associations in Data	
Unit 7 Exponents and Scientific Notation	
Unit 8 Pythagorean Theorem and Irrational Numbers	
Unit 9 Putting It All Together	

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DRAFT 20-21 Year-At-A-Glance

Integrated Math I									
Unit Title: 43 lessons	Univariate Statistics (4 lessons)	Linear Models (7 lessons)	Systems (6 lessons)	Bivariate Statistics (5 lessons)	Functions (8 lessons)	Geometric Transformations (5 lessons)	Exponential Functions (8 lessons)	Congruence (7 lessons)	Introduction to Coordinate Geometry (4 lessons)
Priority Learning Topics	Data Representations Shape, Center, Outliers Comparing Distributions Types of Data	Modeling Situations with Equations in One and Two Variables Solving Equations s	Modeling with Systems of Equations Graphing Systems of Equations Solving Systems of Equations	Linear models Correlation Causation	Representing Functions Analyzing Graphs of Functions Creating Functions Using Functions to Model Situations	Reflections, Rotations, Translations, Rigid transformations Symmetry	Patterns of Growth Exponential Growth and Decay Negative Exponents Exponential Functions in Real-World Models	Congruence using transformations Proofs using Transformations	Transformations in the Plane Equations of Parallel and Perpendicular Lines
Unit Narratives	Unit 1: Univariate Statistics	Unit 2: Linear Models	Unit 3: Systems of Linear Equations	Unit 4: Bivariate Statistics	Unit 5: Into to Functions	Unit 6: Geometric Transformations	Unit 7: Exponential Functions	Unit 8: Congruence and Proof	Unit 9: Intro to Coordinate Geometry
IM Priority Lessons	A1.1 Lesson (2, 3, 4), 5, (11, 12), (10, 14, 15)	A1.2 Lesson 1, 2, 3, (4, 5), (6, 7),(8, 9), 10	A1.2 Lesson 12, 13, 14, 15, 16, 17	A1.3 Lesson 4, 5, (7, 8), 9, 10	A1.4 Lesson 2, 3, 4, 5, 6, 7, 8, (10, 11)	G.1 Lesson 10, (11, 12), (13, 14), 15, 16	A1.5 Lesson 2, 3, (4,5), (6, 7), 8, 9, 11, (12, 13)	G.2 Lesson 1, 2, 3, (4, 5), (6, 7, 9), 12, 13	G.6 Lesson 1, 2, 9, 10, 11,
Unit Assessment									
Unit Project									

*******Note:** Any lessons in parentheses are recommended to be combined into a single “lesson ” by pulling core activities together.
 For example: A1.2 lesson 1, 2, 3, (4, 5), (6, 7), (8, 9), 10 is equivalent to 7 lessons, where lessons (4, 5), (6, 7), and (8, 9) are each combined into single “lessons”.

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Below you can find the 19 -20 Year-at-a-Glance from 19-20 for comparison:

19-20 YAG =121 Lessons
 20-21 YAG =54 Lessons

19-20 Year-At-A-Glance

Integrated Math I							
Unit Title:	Univariate Statistics (12 lessons)	Linear Models and Bivariate Statistics (23 lessons)	Systems (9 lessons)	Intro to Congruence and Transformation (19 lessons)	Introduction to Functions (15 lessons)	Geometry in the Coordinate Plane (21 lessons)	Exponential Functions (22 lessons)
Unit Overview	Data Representations	Modeling Situations with Equations in One and Two Variables	Solving Systems of Equations	Constructing Parallel and Perpendicular Lines	Function Notation	Triangle Congruence	Patterns of Growth
	Shape, Center, Outliers		Modeling Systems of Equations		Reflections, Rotations, Translations, Rigid transformations		Domain and Range
	Comparing Distributions	Solving Equations and Inequalities		Symmetry	Graphing Linear, Absolute Value Functions	Equations of Parallel and Perpendicular Lines	Negative Exponents
	Variability, Spread, Standard Deviation	Graphing Equations and Inequalities		Constructions of Bisectors	Compare Functions		Exponential Functions in Real-World Models
Types of Data	Linear Regression, Residuals, Correlation Coefficient			Using Functions to Model Situations	Simple and Compound Interest		
IM Units	A1 U1 (Skip L5-8)	A1, U2 (skip L12-17, 24-26) A1U3 L4-9	A1 U2 L12-17, 24-26	Geo U1 (skip L8, 18, 22)	A1 U4 (skip lessons 5, 7, 8)	GU2 L1-10, GU6 L1-3, 9-12	A1 U5 1-21

Prioritized Unit Narratives

Unit 1: Univariate Statistics	The unit begins with a brief review of middle school concepts while taking analysis of data displays deeper. Initial lessons focus on variability, describing distributions, and informally comparing distributions. Students represent and interpret data using displays; describe distributions using “symmetric,” “skewed,” etc.; and create data displays and calculate statistics using technology, interpreting the values in context. They recognize relationships between shape and center, then explore standard deviation, outliers, and compare data sets using measures of center and variability. Students learn standard deviation is a measure of variability and interpret it in context. (Note: this unit uses population standard deviation.) They determine outliers and understand how they impact measures of center and variability. They compare measures of center, standard deviation, and IQRs for different data sets.
Unit 2: Linear Models	In this unit, students create, manipulate, interpret, and connect representations to use them for modeling and representing quantities and relationships. Students think of equations as a way to represent constraints on quantities. Students understand when solving equations, we are looking for values that satisfy constraints and make the equations true. Students see graphs of equations can help us make sense of constraints and identify values that satisfy them. Students investigate different ways to express the same relationship or constraint by analyzing and writing equivalent equations. They look at moves that transform one equation to an equivalent, recognizing these are moves we use to solve equations. The focus is not only identifying acceptable moves for solving, but also explaining why these moves keep subsequent equations true and maintain the solutions of the original equation. They also explore how the form and parts of a linear equation are related to the features of its graph. Students understanding the structure and connections across representations gives them deeper insights about the situation studied.
Unit 3: Systems of Linear Equations	
Unit 4: Bivariate Statistics	In grade 8, students informally constructed scatter plots and lines of fit, noticed linear patterns, and observed associations in categorical data using two-way tables. In this unit, students build on this previous knowledge by assessing how well a linear model matches the data using residuals as well as the correlation coefficient for best-fit lines (found using technology). Students use technology to compute the lines of best fit and observe how well the linear models match the data. Residuals and correlation coefficients are used to quantify the goodness of fit for linear models.
Unit 5: Into to Functions	
Unit 6: Geometric Transformations	
Unit 7: Exponential Functions	
Unit 8: Congruence and Proof	
Unit 9: Intro to Coordinate Geometry	

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Integrated Math II							
Unit Title:	Conditional Probability (8 lessons)	Introduction to Quadratic Functions (9 lessons)	Quadratic Equations + Complex Numbers (8 lessons)	Similarity (9 lessons)	Right Triangles and Trigonometry (8 lessons)	Coordinate Geometry (6 lessons)	Introduction to Transformations of Functions (6 lessons)
Priority Learning Topics	Basic Probability Rules Sample Spaces Relative Frequencies Combining Events Conditional Probability Independent Events	Building Quadratic Functions Quadratic Models Working with Quadratic Expressions Features of graphs of quadratic functions	Solving Quadratic Equations The Quadratic Formula Using Quadratic Equations to Model and Solve Problems Imaginary and Complex Numbers	Properties of Dilations Similarity Transformations Proportional Relationships Solving Problems using Similarity	Similarity in Right Triangles Angles and Steepness Defining Trigonometric Ratios Using Trigonometric Ratios to Solve Problems	Distances and Circles (Deriving the Equation of a Circle) Proving Geometric Theorems Algebraically	Introducing Transformations of Functions
Unit Narratives	Unit #1: Conditional Probability	Unit 2: Intro to Quadratic Functions	Unit 3: Quadratic Equations	Unit 4: Similarity	Unit 5: Right Triangle Trigonometry	Unit 6: Coordinate Geometry	Unit 7: Intro to Transformations of Functions
IM Priority Lessons	A1.3 Lesson (1, 2, 3) G.8 Lesson (2, 3, 4), 5, 6, 7, 8, 9, 10 *Note A1.3 Lesson 1, 2, 3 have overlap w/ G.8 Lesson 2, 3, 4	A1.6 Lesson 2, 3, 4, (5, 6), 7, (8, 9, 10), (11, 12), 14, (15, 16, 17)	A1.7 Lesson, 2, (3, 4, 5), (6, 7, 9), (11, 12, 13, 14, 15), (16, 17, 18, 19), 24 A2.3 Lesson (10, 11,12) (16,18, 19)	G.3 Lesson (1, 2), 3, 4, 5, (6, 7), 8, 9, 12, 16	G.3 Lesson (13, 14), 15 G.4 Lesson 1,(2, 3, 4), (5, 6), 7, (8, 9), 10,	G.6 Lesson 3, 4, (5, 6), (12, 13), 14, 17	Alternate Resource: Desmos Activity Builder , pulling titles from IM A2.5 Lessons #1-7
Unit Assessment							
Unit Project							

*******Note:** Any lessons in parentheses are recommended to be combined into a single “lesson” by pulling core activities together.
 For example: A1.2 lesson 1, 2, 3, (4, 5), (6, 7), (8, 9), 10 is equivalent to 7 lessons, where lessons (4, 5), (6, 7), and (8, 9) are each combined into single “lessons”.

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Below you can find the 19-20 Year-at-a-Glance from 19-20 for comparison:

20-21 YAG =54 Lessons
 19-20 YAG =140 Lessons

19-20 Year-At-A-Glance

Integrated Math II							
Unit Title:	Conditional Probability (17 lessons)	Quadratic Functions (20 lessons)	Quadratic Equations (28 lessons)	Complex Numbers, Rational Exponents (18 lessons)	Circles: Sectors, Arcs, Constructions (16 lessons)	Similarity, Proof (17 lessons)	Right Triangle Trigonometry (24 lessons)
Unit Overview	Basic Probability Rules	Building Quadratic Functions	Solving Quadratics: Factoring, Completing the Square, Quadratic Formula	Square Roots, Cube Roots	Measuring Angles and Arcs	Dilations	Angles and Steepness
	Sample Spaces	Comparing Quadratic to Exponential	Rational/Irrational Solutions	Positive and Negative Rational Exponents	Area of a Sector	Similarity in Transformations	Right Triangle Ratios
	Relative Frequencies	Standard, Factored, Vertex Form	Rational/Irrational Number Properties	Equations with Squares and Square Roots	Inscribed Angles	Proportional Relationships	Trigonometric Ratios
	Combining Events	Graphing: Standard, Factored, Vertex	Modeling Situations	Solving Radical Equations	Tangent Lines	Pythagorean Theorem in Similarity	Sine, Cosine, Tangent
	Conditional Probability Independent Events	Translating		Complex and Imaginary Numbers	Circumscribed and Inscribed Circles		Solving Triangles with Trigonometric Ratios
				Arithmetic with Complex Numbers	Radians		Approximating Pi
			Quadratics with Complex Solutions			Distances and Circles (Deriving the Equation of a Circle)	Distances and Parabolas
IM Materials	Alg 1 Unit 3, #1-3 Geo Unit 8 #1-11	Alg 1 Unit 6 (Skip #13)	Alg 1 Unit 7	Alg 2 Unit 3 (Skip 9, 13, 14, 16)	Geo Unit 7 (Skip #5)	Geo Unit 3 (Skip lessons 2, 10, 12)	Geo Unit 4 (1-11, skip 2 and 3) Geo Unit 6 (4-8, 13-17)

Prioritized Unit Narratives

Unit #1: Conditional Probability	<p>In grade 7, students learned about probability by conducting chance experiments. While looking at experimental data, students created and analyzed sample spaces for situations. Now, students extend that by considering situations with two events (ie: roll a die and flip a coin). Students find probabilities when events are combined in various ways (both occurring, at least one occurring, and one event happening under the condition that the other happens as well). The unit begins with students creating different models for understanding sample spaces and probability. Venn diagrams allow students to visualize subsets of the sample space such as “A and B,” “A or B,” or “not A.” Tables help students determine the probability of those subsets occurring, and support understanding of the Addition Rule. Conditional probability is discussed and applied using games and connections to everyday situations. In particular, the Multiplication Rule is used to determine conditional probabilities. Conditional probability leads to the definition of independent events. Students describe independence and use the equation $P(A B) = P(A)$ when events A and B are independent. The unit closes with conjectures about independence of events and playing games to test those conjectures.</p>
Unit 2: Intro to Quadratic Functions	<p>In this unit, students study quadratic functions systematically. They look at patterns which grow quadratically and contrast them with linear and exponential growth. Then they examine other quadratic relationships via tables, graphs, and equations, gaining appreciation for some of the special features of quadratic functions and the situations they represent. They analyze equivalent quadratic expressions and how these expressions help to reveal important behavior of the associated quadratic function and its graph. They gain an appreciation for the factored, standard, and vertex forms of a quadratic function and use these forms to solve problems.</p>
Unit 3: Quadratic Equations	
Unit 4: Similarity	
Unit 5: Right Triangle Trigonometry	
Unit 6: Coordinate Geometry	
Unit 7: Intro to Transformations of Functions	

SDUSD San Diego Enhanced Mathematics Prioritization for Fall 2020 and Beyond

Read more about the SDUSD Math Leadership Team process [here](#).

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Integrated Math III									
Unit Title:	Statistical Inferences 7 Lessons	Sequences and Functions 7 Lessons	Rational Exponents 4 Lessons	Polynomials and Rational Functions 7 Lessons	Exponential Functions and Equations 9 Lessons	Transformations of Functions 9 Lessons	Solid Geometry 8 Lessons	Circles 8 Lessons	Trigonometric Functions 9 Lessons
Priority Learning Topics	Different Types of Studies	Geometric Sequences	Square Roots, Cube Roots	Working with polynomials	Growth and Decay	Translations, reflections, and Symmetry in Functions	Cross Sections, Scaling, and Area	Lines, Angles, Circles	Unit Circle
	Random Selection	Algebraic Sequences	Positive and Negative Rational Exponents	Zeros, End Behavior, Multiplicity	Non-Integer Inputs				
	Normal Distributions	Recursive Models	Equations with Squares and Square Roots	Intersections	e and Base e	Scaled Inputs and Outputs		Radians	Trigonometry Transformations
	Sampling Variability		Solving Radical Equations	Graphing Rational Functions	Logarithms	Combining Functions			
	Estimating Population Means					Modeling with Functions			
	Experimental Design								
Unit Narratives	Unit #1: Statistical Inferences	Unit #2: Sequences and Functions	Unit #3: Rational Exponents	Unit #4: Polynomials and Rational Functions	Unit #5: Exponential Functions and Equations	Unit #6: Transformations of Functions	Unit #7: Solid Geometry	Unit #8: Circles	Unit #9: Trigonometric Functions
IM Priority Lessons	A2.7 Lesson (1,2,3), (4,5), 7, (8,9), (10,12), (13, 14), 15	A2.1 Lesson 1, (2,3), (5,6), (8,9), 10, 11	A2.3 Lesson (1,2), (3,4,5), (6,7), (8,9)	A2.2 Lesson 1, (2,3,4), (5,6,7), (8,9,10), 11,16, (17,18,19)	A2.4 Lesson (1,2), (3,4,5), 6, 7, 8, (9,10,11), (12, 13, 14), (15, 16), (17, 18)	A2.5 Lesson 1, (2,3), 4, 5, 6, 7, (8, 9), 10, 11	G.5 Lesson (1, 2), (3, 4, 5), (6, 7, 8), (9, 10, 11), (12, 13), (14, 15), (16, 17), 18	G.7 Lesson 1, (2, 3), 8, 9, 10, (11, 12), 13, 14	A2.6 Lesson (1, 2), (3, 4), (5, 7), 8, 9, (10, 11), 12, (13, 14, 15, 16), 18
Unit Assessment									
Unit Project									

*******Note:** Any lessons in parentheses are recommended to be combined into a single “lesson” by pulling core activities together.

For example: A1.2 lesson 1, 2, 3, (4, 5), (6, 7), (8, 9), 10 is equivalent to 7 lessons, where lessons (4, 5), (6, 7), and (8, 9) are each combined into single “lessons”.

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Below you can find the 19-20 Year-at-a-Glance from 19-20 for comparison:

20-21 YAG = 68 Lessons
19-20 YAG = 101 Lessons + ~15 Conic Section Lessons

19-20 Year-At-A-Glance

Integrated Math III							
Unit Title:	Statistical Inferences 16 Lessons	Sequences 11 Lessons	Polynomials and Rational Equations 26 Lessons	Exponentials and Logarithms 18 Lessons	Transformations of Functions 11 Lessons	Trigonometric Functions 19 Lessons	Conic Sections (5 weeks)
Unit Overview	<hr/> Different Types of Studies <hr/> Random Selection <hr/> Normal Distributions <hr/> Histograms <hr/> Sampling Variability <hr/> Proportions from Samples <hr/> Margin of Error <hr/> Estimating Population Means <hr/> Experimental Design	<hr/> Geometric Sequences <hr/> Algebraic Sequences <hr/> Recursive Models	<hr/> Factoring Polynomials <hr/> Zeros <hr/> End Behavior <hr/> Multiplicity <hr/> Intersections <hr/> Adding, Subtracting, Multiplying, Dividing Polynomials <hr/> Graphing Rational Functions <hr/> Solving Rational Equations <hr/> Polynomial Identities	<hr/> Growth and Decay <hr/> Non-Integer Inputs <hr/> Equations for Exponential Functions <hr/> Interpreting/Using Exponential Functions <hr/> e and Base e <hr/> Logarithms <hr/> Solving Exponential Equations <hr/> Logarithmic Functions	<hr/> Shifting Functions <hr/> Flipping Functions <hr/> Symmetry in Functions <hr/> Scaled Functions <hr/> Combining Functions <hr/> Expressing Transformations Algebraically <hr/> Piecewise Functions	<hr/> Unit Circle <hr/> Revisit Right Triangle <hr/> Trig Functions <hr/> Pythagorean Identity <hr/> Domain/Range of Trig Functions <hr/> Radians Revisit <hr/> Graphing Sine/Cosine <hr/> Transforming Trig Graphs <hr/> Modeling Circular Motion	<hr/> Volume of 3D Figures <hr/> Cross Sections <hr/> <i>All things conics for Hyperbolas, Ellipses, probably Parabolas and Circles</i>
IM Units	Alg 2 Unit 7	Alg 2 Unit 1	Alg 2 Unit 2 Alg 2 Unit 3 #9	Alg 2 Unit 4	Alg 2 Unit 5 Alg 1 Unit 4 #7, 8	Alg 2 Unit 6	<i>TBA</i>

Prioritized Unit Narratives

Unit #1: Statistical Inferences	In grade 7, students examined processes for collecting samples from a population and using information from the samples to estimate characteristics for the population. In this unit, students expand on this idea by exploring the normal distribution and applying their understanding of the distribution to provide estimates with a margin of error. The unit also examines experimental studies, observational studies, and surveys. For experimental studies, it examines methods for analyzing the data using a randomization distribution and modeling the data with normal distributions. The importance of random selection for gathering a sample for surveys and observational studies and the importance of random assignment in experimental studies is emphasized. The unit concludes with ways to analyze the results from the various study types. Data from surveys and observational studies using random samples are used to estimate population means and proportions with a margin of error.
Unit #2: Sequences and Functions	This unit provides an opportunity to revisit representations of functions (including graphs, tables, and expressions), and also introduces the concept of sequences. Through many concrete examples, students learn to identify geometric and arithmetic sequences. Beginning with an invitation to describe sequences informally, students progress to writing terms of sequences arising from mathematical situations, using representations such as tables and graphs. They progress to using function notation to define sequences recursively and then explicitly for the n th term. Throughout the unit, students learn that sequences are functions and that geometric and arithmetic sequences are examples of the exponential and linear functions they learned about in previous courses, defined on a subset of integers. In the last part of the unit, students use sequences to model several situations represented in different ways. Finally, students encounter some situations where it makes sense to compute the sum of a finite sequence. A formula for such a sum is developed in a future unit.
Unit #3: Rational Exponents	
Unit #4: Polynomials and Rational Functions	
Unit #5: Exponential Functions and Equations	
Unit #6: Transformations of Functions	
Unit #7: Solid Geometry	
Unit #8: Circles	
Unit #9: Trigonometric Functions	

Based on SDUSD San Diego Enhanced Mathematics Prioritization for Fall 2020 and Beyond

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ALGEBRA 2									
Unit Title:	Sequences and Functions 7 Lessons	Polynomials and Rational Functions 7 Lessons	Rational Exponents 4 Lessons	Exponential Functions and Equations 9 Lessons	Transformations of Functions 9 Lessons	Trigonometric Functions 9 Lessons	Statistical Inferences 7 Lessons		
Priority Learning Topics	Geometric Sequences Algebraic Sequences Recursive Models	Working with polynomials Zeros, End Behavior, Multiplicity Intersections Graphing Rational Functions	Square Roots, Cube Roots Positive and Negative Rational Exponents Equations with Squares and Square Roots Solving Radical Equations	Growth and Decay Non-Integer Inputs e and Base e Logarithms	Translations, reflections, and Symmetry in Functions Scaled Inputs and Outputs Combining Functions Modeling with Functions	Unit Circle Periodic Functions Trigonometry Transformations	Different Types of Studies Random Selection Normal Distributions Sampling Variability Estimating Population Means Experimental Design		
Unit Narratives	Unit #1: Sequences and Functions	Unit #2: Polynomials and Rational Functions	Unit #3: Rational Exponents	Unit #4: Exponential Functions and Equations	Unit #5: Transformations of Functions	Unit #6: Trigonometric Functions	Unit #7: Statistical Inferences		
IM Priority Lessons	A2.1 Lesson 1, (2,3), (5,6), (8,9), 10, 11	A2.2 Lesson 1, (2,3,4), (5,6,7), (8,9,10), 11,16, (17,18,19)	A2.3 Lesson (1,2), (3,4,5), (6,7), (8,9)	A2.4 Lesson (1,2), (3,4,5), 6, 7, 8, (9,10,11), (12, 13, 14), (15, 16), (17, 18)	A2.5 Lesson 1, (2,3), 4, 5, 6, 7, (8, 9), 10, 11	A2.6 Lesson (1, 2), (3, 4), (5, 7), 8, 9, (10, 11), 12, (13, 14, 15, 16), 18	A2.7 Lesson (1,2,3), (4,5), 7, (8,9), (10,12), (13, 14), 15		
Unit Assessment									
Unit Project									

*******Note:** Any lessons in parentheses are recommended to be combined into a single “lesson” by pulling core activities together.

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