Math Essential Elements – 8th Grade
Curriculum Map by Quarter

		I Can Statements	Standards-Based Essential Elements	Activities/Formative Assessments
1st Quarter		I can subtract fractions with like denominators that have minuends less than or equal to one.	EE.8.NS.1- Subtract fractions with like denominators (halves, thirds, fourths, and tenths) with minuends less than or equal to one.	Give students fractions to subtract to practice this skill.
		I can show a faction with a denominator of 100 as a decimal.	EE.8.NS.2.a- Express a fraction with a denominator of 100 as a decimal.	Some students may need a review of partitioning objects into fractions. Then show them how to use the decimal to change the fraction to a decimal.
		I can compare quantities that are represented as decimals to hundredths.	EE.8.NS.2.b- Compare quantities represented as decimals in real-world examples to hundredths.	Use money to compare decimals to hundredths.
		I can identify the meaning of an exponent.	EE.8.EE.1- Identify the meaning of an exponent (limited to exponents of 2 and 3).	Model and practice how to write out what the exponent means with a number.
		I can identify a geometric sequence of whole numbers with a whole number common ratio.	EE.8.EE.2- Identify a geometric sequence of whole numbers with a whole number common ratio.	Have students make their own geometric sequence that increases by a whole number ratio (3, 6, 9, …)
		I can compose and decompose numbers up to 999.	EE.8.EE.3-4-Compose and decompose whole numbers up to 999.	Work on fluency of composing and decomposing numbers up to 999. Challenge students to use different strategies. Some students may need choices to pick from.
		I can use addition and subtraction to solve simple algebraic equations with one variable.	EE.8.EE.7- Solve simple algebraic equations with one variable using addition and subtraction.	Provide students with opportunities to solve problems with one variable.
		I can use categorical data to make a graph or table and compare the data in the graph or table.	EE.8.SP.4- Construct a graph or table from given categorical data, and compare data categorized in the graph or table.	Provide students with data to make a graph and answer questions about the data.

	I can graph a simple ratio by representing the ratio in y/x to plot on the graph.	EE.8.EE.5-6-Graph a simple ratio by connecting the origin to a point representing the ratio in the form of y/x. For example, when given a ratio in standard form (2:1), convert to 2/1 and plot the point (1,2).	Give students ratios to convert to y/x form. Make a big graph for students to plot their point. -Some students may need to match the ratio to the y/x form.
	I can use a function table to show 3 ordered pairs.	EE.8.F.1-3- Given a function table containing at least 2 complete ordered pairs, identify a missing number that completes another ordered pair (limited to linear functions).	Provide a template of a function table and model how to find the next missing number by following the pattern. Some students may need choices to identify the missing number if you tell them the pattern.
	I can find the rule of the function using a table (or graph).	EE.8.F.4-Determine the values or rule of a function using a graph or a table.	Provide students with a function table and use manipulatives if needed to determine the rule shown in the table. Some students may be able to create their own or give them numbers to create a table so others can find the rule.
2nd Quarter	I can use a graph to describe how it represents the relationship between two amounts.	EE.8.F.5-Describe how a graph represents a relationship between two quantities.	Using core vocabulary boards and students can talk about the similarities and differences on the graph.
	I can label if a shape is shown in a translation, rotation, or reflection.	EE.8.G.1-Recognize translations, rotations, and reflections of shapes.	Provide students with an anchor chart to show translation, rotation, and reflection. Give them pre-made labels so they can label shapes around the room.
	I can identify if shapes are congruent.	EE.8.G.2- Identify shapes that are congruent.	Define congruent for the students to refer to with a visual. Have them go on a shape hunt in the classroom to find congruent shapes.
	I can identify similar shapes in and out of rotation.	EE.8.G.4- Identify similar shapes with and without rotation.	Make a shape matching game or give students the names of shapes on notecards. You show them different shapes in and out of rotation to see if they can identify them.
	I can compare an angle to a right angle.	EE.8.G.5- Compare any angle to a right angle, and describe the angle as greater than, less than, or congruent to a right angle.	Have a visual for a right angle, along with models of an angle that is greater than, less than, or congruent. Show different angles or make them with food for students to compare.
	I can use formulas to solve real-world math problems to find area, perimeter, or volume.	EE.8.G.9- Use the formulas for perimeter, area, and volume to solve real-world and mathematical problems (limited to perimeter and area of rectangles and volume of rectangular prisms).	Provide students with the formulas to solve word problems. Some students may just be matching the formula to the word problem to show they understand what they are being asked to solve for.

3rd Quarter		I can subtract fractions with like denominators that have minuends less than or equal to one.	EE.8.NS.1- Subtract fractions with like denominators (halves, thirds, fourths, and tenths) with minuends less than or equal to one.	Give students fractions to subtract to practice this skill.
		I can show a faction with a denominator of 100 as a decimal.	EE.8.NS.2.a- Express a fraction with a denominator of 100 as a decimal.	Some students may need a review of partitioning objects into fractions. Then show them how to use the decimal to change the fraction to a decimal.
		I can compare quantities that are represented as decimals to hundredths.	EE.8.NS.2.b- Compare quantities represented as decimals in real-world examples to hundredths.	Use money to compare decimals to hundredths.
		I can identify the meaning of an exponent.	EE.8.EE.1- Identify the meaning of an exponent (limited to exponents of 2 and 3).	Model and practice how to write out what the exponent means with a number.
		I can identify a geometric sequence of whole numbers with a whole number common ratio.	EE.8.EE.2- Identify a geometric sequence of whole numbers with a whole number common ratio.	Have students make their own geometric sequence that increases by a whole number ratio (3, 6, 9, …)
		I can compose and decompose numbers up to 999.	EE.8.EE.3-4-Compose and decompose whole numbers up to 999.	Work on fluency of composing and decomposing numbers up to 999. Challenge students to use different strategies. Some students may need choices to pick from.
		I can use addition and subtraction to solve simple algebraic equations with one variable.	EE.8.EE.7- Solve simple algebraic equations with one variable using addition and subtraction.	Provide students with opportunities to solve problems with one variable.
		I can use categorical data to make a graph or table and compare the data in the graph or table.	EE.8.SP.4- Construct a graph or table from given categorical data, and compare data categorized in the graph or table.	Provide students with data to make a graph and answer questions about the data.

*Online website with some virtual math tools
https://www.didax.com/math/virtual-manipulatives.html

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	I can graph a simple ratio by representing the ratio in y/x to plot on the graph.	EE.8.EE.5-6-Graph a simple ratio by connecting the origin to a point representing the ratio in the form of y/x. For example, when given a ratio in standard form (2:1), convert to 2/1 and plot the point (1,2).	Give students ratios to convert to y/x form. Make a big graph for students to plot their point. -Some students may need to match the ratio to the y/x form.
	I can use a function table to show 3 ordered pairs.	EE.8.F.1-3- Given a function table containing at least 2 complete ordered pairs, identify a missing number that completes another ordered pair (limited to linear functions).	Provide a template of a function table and model how to find the next missing number by following the pattern. Some students may need choices to identify the missing number if you tell them the pattern.
	I can find the rule of the function using a table (or graph).	EE.8.F.4-Determine the values or rule of a function using a graph or a table.	Provide students with a function table and use manipulatives if needed to determine the rule shown in the table. Some students may be able to create their own or give them numbers to create a table so others can find the rule.
4th Quarter	I can use a graph to describe how it represents the relationship between two amounts.	EE.8.F.5-Describe how a graph represents a relationship between two quantities.	Using core vocabulary board and students can talk about the similarities and differences on the graph.
	I can label if a shape is shown in a translation, rotation, or reflection.	EE.8.G.1-Recognize translations, rotations, and reflections of shapes.	Provide students with an anchor chart to show translation, rotation, and reflection. Give them pre-made labels so they can label shapes around the room.
	I can identify if shapes are congruent.	EE.8.G.2- Identify shapes that are congruent.	Define congruent for the kids to refer to with a visual. Have them go on a shape hunt in the classroom to find congruent shapes.
	I can identify similar shapes in and out of rotation.	EE.8.G.4- Identify similar shapes with and without rotation.	Make a shape matching game or give students the names of shapes on notecards. Show them different shapes in and out of rotation to see if they can identify them.
	I can compare an angle to a right angle.	EE.8.G.5- Compare any angle to a right angle, and describe the angle as greater than, less than, or congruent to a right angle.	Have a visual for a right angle, along with models of an angle that is greater than, less than or congruent. Show different angles or make them with food for students to compare.
	I can use formulas to solve real-world math problems to find area, perimeter, or volume.	EE.8.G.9- Use the formulas for perimeter, area, and volume to solve real-world and mathematical problems (limited to perimeter and area of rectangles and volume of rectangular prisms).	Provide students with the formulas to solve word problems- some students may just be matching the formula to the word problem to show they understand what they are being asked to solve for.

*Highlights indicate standards that are aligned to the Instructionally Embedded Assessments.

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