8th Grade MATH Curriculum Map

Quarter 1

1 — Apply the Pythagorean Theorem to solve problems

Level	Description
Level 4	Solve 2-step problems using Pythagorean Theorem
Level 3	Calculate distance between two points on a coordinate grid.
	Determine if a triangle is a right triangle using the Pythagorean Theorem
	Calculate the length of a missing hypotenuse or leg on a right triangle.

2 — Classify Numbers as Rational, Irrational

Level	Description
Level 4	Classify & Compare sums/differences/products/quotients as rational & irrational
Level 3	Estimate the value of a Square Root
	Compare real numbers
	Classify real numbers as rational or irrational.

3 — Identify & Analyze Linear Relationships

Level	Description
Level 4	Identify the independent and dependent variables
Level 3	Identify & Analyze Linear Tables
	Identify & Analyze Linear Equations
	Identify & Analyze Linear Graphs

4 — Identify Slope (Rate of Change)

Level	Description
Level 4	Find slope from 2 points
Level 3	Interpret the slope in context.
	Find the slope from a graph, table or equation.
	Determine if the slope is positive, negative, zero or undefined.

5 — Write Linear Equations in Slope-Intercept Form

Level	Description
Level 4	Write linear equation given 2 points.
Level 3	Write linear equation from a graph
	Write linear equation from a table
	Write equation from a description

Quarter 2

6 — Algebraic Properties

Level	Description
Level 4	Create 2-column proofs using algebraic properties.
Level 3	Create equivalent expressions using algebraic properties
	Identify the associative, commutative, and distributive property.
	Identify the zero and identity properties.

7 — Solve Linear Equations

Level	Description
Level 4	Solve multi-variable equations for a single variable.
Level 3	Solve equations that require simplifying (variables on both sides/distributive)
	Solve equation and interpret solution in context
	Solve 2-step equations.

8 — Solve Non-Linear Equations

Level	Description
Level 4	Solve multi-step equations involving square roots and absolute value
Level 3	Identify the number of solutions of equations involving square roots and absolute value
	Solve 2-step equations involving square roots and absolute value
	Solve 1-step equations involving square roots and absolute value

9 — Solve Linear Inequalities

Level	Description
Level 4	Solve multi-step inequalities and graph solution on a number line
Level 3	Write a linear inequality, solve, and interpret the solution in context.
	Solve 2-step inequalities and graph solution on a number line.
	Graph inequalities on a number line

10 — Solve a System of Equations

Level	Description
Level 4	Solve a system of equations by substitution or elimination
Level 3	Write a system of equations, solve, and interpret the solution in context.
	Solve a system of equation by graphing.
	Identify the number of solutions in a system of equations.

Quarter 3

11 — Scatterplots and Line of Best Fit

Level	Description
Level 4	Identify the independent and dependent variables
Level 3	Use the line of best fit to make and analyze predictions
	Interpret line of best fit, slope and y-intercept in context.
	Create a scatterplot with variables placed correctly.

12 — Apply Parallel & Perpendicular Slopes

Level	Description
Level 4	Write parallel and perpendicular equations that go through a given point.
Level 3	Write parallel and perpendicular equations given a graph, table or equation.
	Identify Perpendicular lines using slope from an equation, graph or table.
	Identify Parallel lines using slope from an equation, graph or table.

13 — Write & Analyze Linear Equations in Various Forms

Level	Description
Level 4	Identify slope and y-intercept of a linear equation in any form
Level 3	Convert standard form linear equation to slope-intercept form
	Identify slope from a Point-Slope Linear Equation
	Write a Point-Slope Linear equation given a point and slope

14 — Graph Linear Equations

Level	Description
Level 4	Graph a linear equation in any form
Level 3	Interpret transformations of a linear equation
	Graph a point-slope form equation
	Graph a slope-intercept form equation

Quarter 4

15 — Identify and Evaluate Functions

Level	Description
Level 4	Identify independent and dependent variables from function.
Level 3	Identify functions from a graph.
	Identify functions from tables, mappings, and list of coordinates.
	Evaluate functions involving radicals and absolute value using f(x) notation

16 — Create and Analyze Sequences of Numbers

Level	Description
Level 4	Solve problems involving geometric sequences (expo functions)
Level 3	Write equations for arithmetic and geometric sequences.
	Identify Arithmetic and Geometric Sequences.
	Find next term of a sequence (arithmetic or geometric).

17 — Solve problems involving Scientific Notation

Level	Description
Level 4	Add & Subtract Numbers in Scientific Notation
Level 3	Multiply & Divide Numbers in Scientific Notation
	Order Numbers in Scientific Notation
	Write numbers in scientific notation

18 — Apply the Rules of Exponents

Level	Description
Level 4	Apply a combination of the rules of exponents.
Level 3	Apply division rule of exponents.
	Apply power rule of exponents.
	Apply multiplication rule of exponents.