Math Grade 7 Unit 2

Canterbury Public Schools

Subject	Math
Grade Level	7
Unit Title	Introducing proportional relationships
Unit Goals	Compare: Drink mixtures and figures Approaches to solving problems involving proportional relationship Proportional relationships with non proportional relationships Tables, descriptions, and graphs representing the same situation Graphs of proportional relationships Interpret: Representations showing equivalent ratios Tables showing equivalent ratios Situations involving proportional relationships How a graph represents features of a situation Generalize About proportional relationships About equations that represent proportional relationships About how a constant of proportionality is represented by graphs and tables Describe proportional relationships and constants of proportionality Explain how to determine whether or not a relationship is proportional and how to compare and represent situations with different constants of proportionality. Justify whether or not a relationship is proportional represents proportional and non proportional relationships in multiple ways.
Pacing (# of weeks)	6 - 8 weeks approx.
Standards	6.RP.A.1, 6.RP.A.3.a,6.RP.A.2, 6.RP.A.3.b,7.RP.A, 7.RP.A.2.b, 7.RP.A.1, 7.G.b.6, 7.RP.A.2.a, 7.G.A.1, 7.RP.A.2.b, 7.RP.A.2,7.RP.A.2.c,
Content/Conceptual Knowledge (know)	Ratios are representations of relationships you can compare and contrast sizes and shapes of polygons using proportional relationships
Skills (be able to do)	Understand and use ratio and rate language in a variety of contexts, Find equivalent ratios using a scale factor Find unit rates in context Given one value of a ratio, use the unit rate to find the other

	Represent equivalent ratios in a table Represent a problem involving ratios with a double number line Graph points in the coordinate plane Use equivalent ratios to describe scale copies of shapes Use a table to reason about 2 quantities that are in a proportional relationship Understand the terms proportional relationships and constant of proportionality Find the constant of proportionality given in a table Write and equation of the form Y = K xX to represent a proportional relationship shown in a table or described in a story Write the constant of proportionality as an entry in a table Find 2 constants of proportionality for a proportional relationship Write two equations representing a proportional relationship described by a story Can find missing information in a proportional relationship using the constant of proportionality
Essential Questions	How do graphs and tables show ratios? How do graphs represent features of a situation? How do equations represent proportional relationships? How can you describe proportional relationships and constants of proportionality? How do you justify proportionality?
Enduring Understandings	Proportional relationships and constants can be represented in graphs. Proportionality can be justified through graphs, diagrams and other representations that show ratios. Ratios can be represented in multiple ways
Vocabulary	Equivalent rations, constant of proportionality Proportional relationship Equivalent ratios Reciprocal, coordinate plane, origin, plot, origin,
Common Learning Experiences	Quizzes, think pair share, turn and talk, math talks, collect and display 3 reeds, notice and wonder, co craft questions, critique , correct na clarity, compare and contrast, which three go together? , stronger and clearer each time, information gap cards, take turns,
Assessments	Readiness, cool downs, teacher created quizzes, end of unit tests
Student Resources	Colored pencils, drink mix, calculators, geometry toolkits, measuring cups, measuring spoons, mixing containers, rulers, disposable cups, snap cubes, water
Teacher Resources	Measurement tools, technology, enrichment activities, calculators, snap cubes for modeling