

Unit Guide

Why Does Place Value Matter?

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The objective of this unit is for fifth grade students to apply their understanding of place value to the millions place, estimation, multiplication and division by 10s, and exponential numerical patterns; thus appreciating the significance of numerical place value. The goal is for students to be successful in analyzing problems and solving them with mathematical rigor and fluency. The students will use Poyla's classic framework for problem solving which has four basic steps; understand the problem, make a plan, carry out the plan, and look back, check, and verify. The Unit is based on a Project-Based Model which has four major components; content, group work, research, and mindset. The content is drawn from the various subjects and current events. The situations presented are authentic, engaging, organized, and procedural. Group work allows for collaboration of individual and group thinking strategies, as well as for efficiencies of thinking to be realized. The final project incorporates research, analysis, and formulation of new ideas or opportunities. Positive thinking and perseverance are integral elements of the unit as challenges increase in complexity and rigor. This positive mindset opens their thinking powers to solve problems that first appear unattainable.