

Instructional Strategies

Choosing Strategies When Solving Problems

Present a problem during whole-class instruction and ask students to write down questions they might ask themselves to determine appropriate solution strategies. Alternatively, provide a list of questions that students may ask themselves. Teach students to recognize and generate strategies for solving problems. Encourage students to articulate the reasoning behind their choice of strategy and the mathematical validity of their strategy when solving problems. Have students evaluate and compare different strategies for solving problems. After students are introduced to different strategies, help them develop skills for selecting which strategy to use.

[Reference](#)

Assessment Strategies

Questions to Develop Mathematical Thinking

Will the same strategy work in other situations? Is this always true, sometimes true or never true? How would you prove that...? What do you notice about...? What is happening in this situation? What would happen if...? Is there a mathematical rule for...? What predictions or generalizations can this pattern support? What mathematical consistencies do you notice?



Standards of Mathematical Practices

Look For and Express Regularity in Repeated Reasoning

Derive formulas or generalize. Maintain oversight of the process, while attending to the details. Continually evaluate the reasonableness of their intermediate results. Use iterative processes to determine more precise rational approximations for irrational numbers. Flexibly make connections between covariance, rates, and representations showing the relationships between quantities.

[Standards for Mathematical Practice Grade Level Emphasis*](#)

Classroom / Time Management Strategies

Digital Badges

Digital badges are a declaration of purpose. They represent what schools want students to achieve in the classroom. Schools can use two different types of badges: course badges, which focus on the key milestones within a single class, and schoolwide badges, which can focus on broader learning goals. A teacher can start by thinking about what every student should know and be able to do. What habits and dispositions do they expect of their students? When students earn a badge, it means that they have achieved a milestone. [Reference](#)