Math Strategies for Grades 4-6

Instructional Strategies

The Jigsaw Strategy

The jigsaw strategy is designed to learn content material in a cooperative learning setting. It provides opportunities for listening, engagement, and empathy by giving students roles to assume. Group members have individual roles but must work together as a team to accomplish a common goal, and no student can succeed completely on their own. This "cooperation by design" facilitates interaction among all students in the class, leading them to value each other as contributors to their common task. Reference: Jigsaw Classroom. Tips: Have the content/material broken into sections prior to class. Make sure that each section or content can stand alone. Have some questions or questions starters for groups to get started. Have one student in each expert group (3 to 5 students) be the leader of the discussion.

Assessment Strategies

Performance Tasks

Performance tasks give students the opportunity to work on extended problems, either individually or with a group. A task may involve formulating a problem-solving plan and documenting the results. Tasks can also provide opportunities for creative components, including physical representations. A performance task can take the form of a problem or situation in which students explain each portion of their work. Performance tasks yield a tangible product that serves as evidence of learning. Unlike a selected-response item (e.g., multiple-choice or matching) that asks students to select from given alternatives, a performance task presents a situation that calls for learners to apply their learning in context. Sample tasks can be found at Mathematics Assessment Project.

Standards of Mathematical Practices

Use Appropriate Tools Strategically Consider available tools (including estimation and technology) when solving a mathematical problem and decide when certain tools might be helpful. Represent similar data sets using dot plots with the same scale to visually compare the center and variability of the data. Use physical objects or applets to construct nets and calculate the surface area of three-dimensional figures.



Standards for Mathematical Practice Grade Level Emphasis*

Classroom / Time Management Strategies

Curriculum to Support Classroom Management For a curriculum to support classroom management, it must be comprehensive and include all necessary standards and objectives. A curriculum provides educators with a guide for what to teach and when to teach it. Curriculum needs to be aligned with classroom management strategies and instructional goals to provide a comprehensive guide. This helps to create a sense of order and predictability for teachers and students. Additionally, a structured curriculum allows educators to easily plan and implement classroom activities and routines. It also makes lesson planning easier because teachers know exactly what is slated to happen next. Finally, having a clearly defined curriculum means that teachers can focus their energy on teaching the material.

