# Math Strategies for Grades 4-6

Vol. 1 Issue 6 August 2022

# **Instructional Strategies**

### **Use your own Data**

Let students collect data about their interests or relevant to their lives. Data displays should be incorporated into the concepts being taught: dot plots, box plots, histograms, circle graphs, etc. Using sports data, students pick a team and create a histogram or box plot to represent the data of the athletes' heights, years playing, or whatever applicable data point students find interesting. They can use data from their own lives, information from their classmates, friends, or themselves. Students can conclude by telling a story to contextualize the data and examine the graph for important points of change, such as high and low points and speculating as to why.

# **Assessment Strategies**

## **Muddiest Point**

Muddiest Point is a monitoring technique in which students are asked to take a few minutes to write down the most difficult or confusing part of a lesson or activity. This strategy is a quick way to hear what ideas are still unclear to your students. Start by determining what information you want to get from students and ask them specifically about that topic. Then give students a few minutes to jot down what is still unclear at the end of a lesson. Review their responses live or after class to address the misunderstandings and reinforce the understandings of your students. This can be collected with names on the papers to provide individualized feedback or without names to allow for more anonymity.

Reference: Muddiest Point

#### **Standards of Mathematical Practices**

#### Attend to Precision

Continue to refine mathematical communication skills by using clear and precise language in their discussions with others and in their own reasoning. Use appropriate terminology when referring to expressions, fractions, geometric figures, and coordinate grids. Specify units of measure and state the meaning of the symbols they choose. For instance, when figuring out the volume of a rectangular prism, they record their answers in cubic units.

Standards for Mathematical Practice Grade Level Emphasis\*



## Classroom / Time Management Strategies

#### Model Ideal Behavior

Make a habit of demonstrating behavior you want to see, as modeling effectively teaches students how to act in different situations. Modeling allows the teacher to save time during their lessons. It reduces the time spent teaching a topic or concept since students understand concepts quickly if the teacher models them effectively. Remember, this reduces the probability of having problem behavior in the classroom. Ultimately, when it comes to classroom management for new teachers, modeling and rapport with students can be the deciding factors in becoming a more effective educator.

The resources listed are provided as options and examples.

Pennsylvania does not require, recommend, or endorse any specific program or product. All curricular and instructional decisions are made at the local level.

