

Math for 21st Century Learners

To succeed in college, career and life in the 21st century, students must be supported in mastering both content and skills. Instruction cannot be something from the day of old where the teacher could just say, “Okay, this is how you do it.” Instruction now must require students to think and reason. Schools now must prepare students to become

- Critical thinkers,
- Problem solvers,
- Good communicators,
- Good collaborators,
- Information and technology literate,
- Flexible and adaptable,
- Innovative and creative,
- Globally competent and
- Financially literate.

According to *Curriculum and Instruction: A 21st Century Skills Implementation Guide* produced by Partnership for 21st Century Skills, “To meet the needs of the 21st century learner, schools will need to adopt a 21st century skills curriculum and employ methods of instruction that integrate innovative, research-proven teaching strategies, modern learning technologies, and real world resources and contexts.”

Within the math classrooms in Richland School District One, teachers are beginning to utilize instructional strategies to meet the 21st century learner. You may have noticed your children using different approaches for solving math problems. For example, when tackling multi-digit addition, students no longer just line up the two numbers and then add the columns, as parents had been taught to do. Instead, they sketch out a graph with a series of arrows and marks that may appear at first to parents as indecipherable as hieroglyphic. A parent’s first response might be, “Why are you doing that? You are wasting time. Just add the numbers.”

When students are presented a problem such as 531×4 , he might start with the “place value” method, which entails multiplying 4 by 1, 4 by 30, and 4 by 500, and then adding up the results. They may depict a similar problem graphically using the “area model.” They may also try “repeated addition” (adding 531 four times) as well as what’s referred to as the “standard algorithm” (lining up the problem vertically), as parents may have been taught to do.

The theory behind the new approach is that children will come to understand the meaning behind math problem and not just learn how to follow rules.

Hopefully, as we make more progress in developing effective instructional strategies to teach 21st century learners, parents will notice that their children are more equipped to reason and think mathematically, make connections, and develop innovative and creative approaches to solving problems.