# **Math News**

# **Mar 2022**

**Educational Tech**

# **Instructional Resources**

**Math Fluency**

**Research/Articles**

[**The Importance of Automaticity Development in Mathematics**](https://files.eric.ed.gov/fulltext/EJ1194585.pdf)

[**Fluency: Simply Fast and Accurate? I Think Not!**](https://www.nctm.org/News-and-Calendar/Messages-from-the-President/Archive/Linda-M_-Gojak/Fluency_-Simply-Fast-and-Accurate_-I-Think-Not%21/)

[**Research shows the best ways to learn math**](https://ed.stanford.edu/news/learning-math-without-fear)

[**Math Fact Fluency Instruction – NWCommons**](https://nwcommons.nwciowa.edu/cgi/viewcontent.cgi?article=1292&context=education_masters)

[**Effective Interventions to Improve Mathematic Fact Fluency**](https://nwcommons.nwciowa.edu/cgi/viewcontent.cgi?article=1192&context=education_masters)

**Cross Curricular**

**PDE Assessment**

[PSSA Testing Windows](https://www.education.pa.gov/K-12/Assessment%20and%20Accountability/PSSA/Pages/TestingWindows.aspx)

[Keystone Testing Windows](https://www.education.pa.gov/K-12/Assessment%20and%20Accountability/Keystones/Pages/KeystoneTestingWindow.aspx)

**Professional Development Opportunities**

**SAS PD Center: Explore Professional Learning Opportunities**

The [SAS PD Center](https://pdc.pdesas.org/Course/CourseCatalog)  has several new offerings to support your professional growth.  Courses are self-paced, are no cost, and provide Act 48 hours.

**The Office of Child Development and Early Learning (OCDEL)** is a unique office within the commonwealth as it is a dual deputate reporting to the Pennsylvania Departments of Education (PDE) and Human Services (DHS). OCDEL, through PDE, is offering an opportunity for school districts to engage in a continuous quality improvement process using certified observers / assessors and the CLASS assessment tool. The Classroom Assessment Scoring System ® (CLASS ®) is an observation instrument developed to assess classroom quality in Preschool through Third-Grade classrooms. <https://teachstone.com/class/>

CLASS not only defines teaching quality through the lens of interactions, but it also provides the ability to measure and improve the interactions that matter most for student outcomes. It’s a journey of continuous improvement that is data-driven and focused on what matters most for student outcomes, interactions. The tool is broken down into three distinct domains covering focused dimensions. Emotional Support looks at positive climate, negative climate, teacher sensitivity and regard for student perspective. Classroom Organization looks at behavior management, productivity, and instructional learning formats. Instructional Support covers concept development, quality feedback, and language modeling.

Observations consist of four twenty-minute cycles lasting approximately two hours. Targeted feedback on areas of strength and areas of opportunity are provided to teachers and administrators within one week after the observation.

[Click here](https://files5.pdesas.org/111240152225045107084179176213185080205188006024/Download.ashx?hash=2.2) to learn more! Contact Maryanne Olley at molley@pa.gov or Barry Wiestling at bwiestling@pa.gov for registration information.

**Shaping Authentic Practices by Engaging in Modeling of A Topic with Teachers to Explore Research in Science (SHAPE MATTERS)** June 20 - July 2, 2022 Monday - Friday, 9 AM - 4 PM 118 Chambers Building, University Park, PA 16802 Deadline to apply: April 15, 2022

Professional Organizations

[**SHAPE MATTERS**](https://www.csats.psu.edu/assets/uploads/programs/2022-SHAPE-MATTERS-Flyer-Final.pdf)is a 10-day summer professional development workshop that will include in-person and virtual activities for Pennsylvanian secondary life science and chemistry teachers in collaboration with science education faculty from the Center for Science and the Schools (CSATS) and research scientists from the Penn State College of Medicine and the Eberly College of Science. Teachers will engage in techniques such as crystallization, structure determination, and modeling using the molecular visualization software, Jmol, to explore molecular stories related to human health. Teachers will work with the SHAPE MATTERS team to co-construct a molecular modeling research project for their classroom. The research project will support

student participation in the SMART teams program.

**Participant Benefits:**

* A $600 stipend for participating during the summer
* A $1,500 stipend for implementation of a molecular modeling research project
* in the classroom
* Over $2,000 of lab and molecular modeling materials for the classroom
* Invitation to bring students to present molecular modeling projects at the
* SMART teams symposium
* Act 48 credit is available upon request

**Content Advisor Contact Information**

If you have any questions concerning Math News information; the Standards Aligned System (SAS); or want information regarding Curriculum, Instruction, or Assessment; please contact me at kmauro@pa.gov.

Kevin Mauro, Mathematics Curriculum Advisor