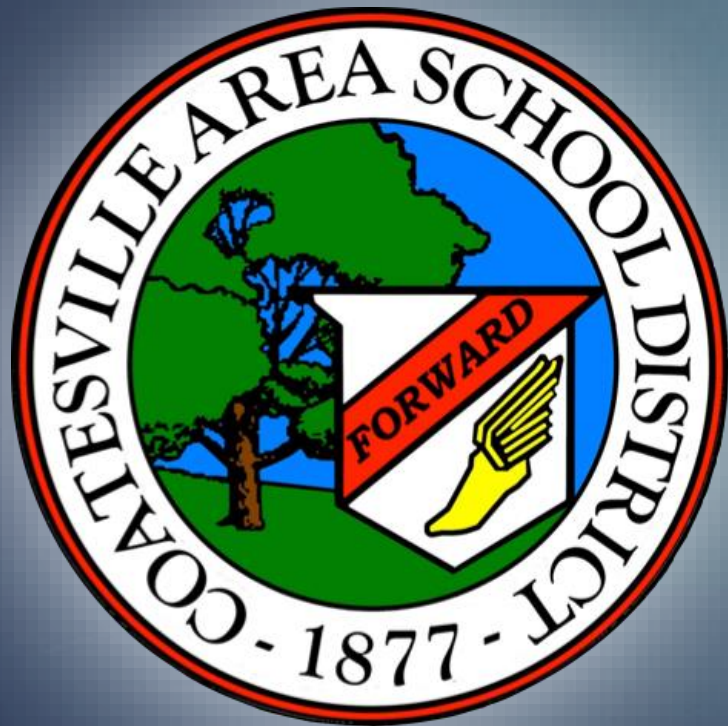


COATESVILLE AREA SCHOOL DISTRICT

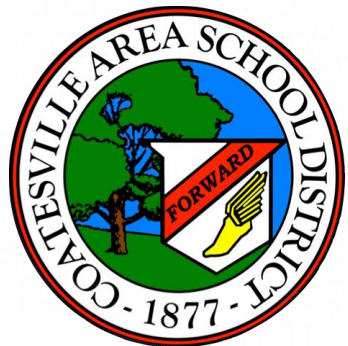


MATH CURRICULUM UPDATE

JANUARY 10, 2023

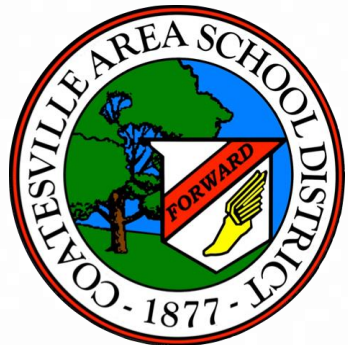
Mathematics Curriculum Focus

- ▶ Initial Implementation of Math MTSS in grades K-7
- ▶ Secondary math core resource pilot and selection in courses supporting grades 6 through Algebra II
- ▶ Elementary math core resource review



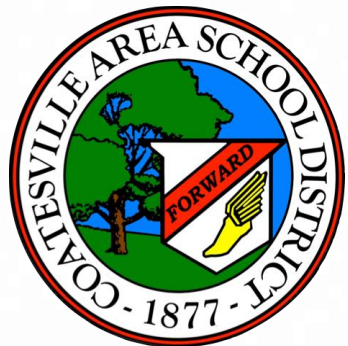
Mathematics Curriculum: MTSS Implementation

- ▶ Math MTSS introduced in 2022-23
 - Monthly data meetings are held
 - ▶ Grade K-5: Attended by Supervisor of math and science, CCIU consultant, Building principal(s), Grade level teacher teams including MTSS Facilitators
 - ▶ Grade 6 and 7: Attended by Supervisor of math and science, Math specialist, CCIU consultant, Building principal(s), and Teacher teams
 - ▶ Optional attendees include Special ed teachers, Guidance counselors, EL teachers, and School psychologists
 - ▶ Data to be reviewed:
 - Acadience Screener (Grades K-6) or NWEA MAP data (Grade 7)
 - Spring Math Intervention Data
 - IXL Diagnostic Data
 - Teams are building capacity as teachers assume meeting roles



Mathematics Curriculum: Student Data

- ▶ Second year of implementation of the Acadience Universal Screener (grades Kindergarten – 6)
 - Used to identify which students are struggling
 - Used to determine the level of intensity of support a student is likely to need
 - Screeners include Early Numeracy skills, Computational Fluency, and Concepts and Applications
 - Screening occurs in Fall, Winter, and Spring
 - ▶ Winter Screening 2022-23 is currently underway



Mathematics Curriculum: Student Data

- ▶ Second year of NWEA MAP assessment implementation (grades 7-11)
 - MAP Growth 6+ measures achievement and growth
 - ▶ Numbers and Operations, Algebraic Concepts, Geometry, and Data Analysis and Probability
 - Screenings occur in Fall, Winter, and Spring
 - ▶ Winter Screening 2022-23 is currently underway
 - Additional teacher training in data analysis to support instruction will be provided



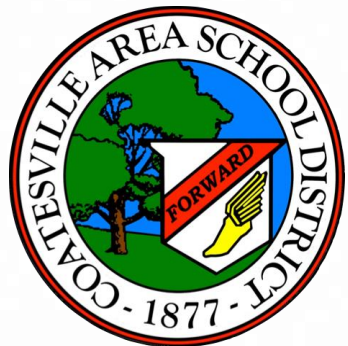
Spring Math Intervention Program

- ▶ Acadience data from 2021-22 and 2022-23 reflect difficulties in math computation
 - Spring Math was piloted in Spring 2022 in eleven classrooms across grades 2, 4, 5 and 6
 - Spring Math was purchased for three years for grades 1-7 beginning in 2022-23
 - Initial implementation began in October 2022 following teacher and administrator training in September 2022
 - Spring Math Winter Screening will be completed by the end of January 2023



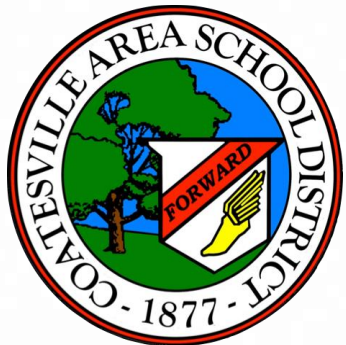
Spring Math Intervention Program

- ▶ Spring Math Intervention Program
 - Paper and pencil intervention program
 - Initial implementation is class-wide
 - Focuses on computation and problem-solving
 - Including whole number arithmetic, fractions, decimals, equations, proportions, order of operations, exponents, and systems of equations
 - Uses paired learning to lift all students and build enduring mastery and mathematical confidence
 - Future extension will support small group intervention



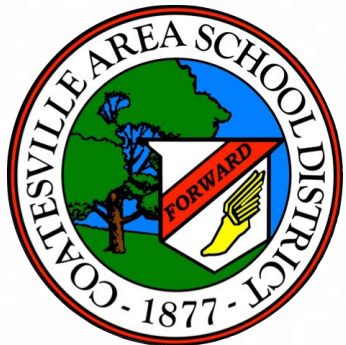
Spring Math Intervention Program

- ▶ Spring Math class-wide intervention data and feedback
 - Computational fluency is improving
 - Teachers provide additional exercises to build conceptual understanding as needed
 - Spring Math dashboard tracks individual and class growth
 - Students are motivated to participate in the daily learning activity
 - Individual student progress monitoring is a critical component of Spring Math that supports student awareness of personal growth



Supplemental Math Tools

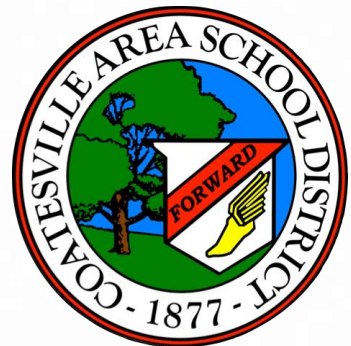
- ▶ IXL Math was purchased for 3 years beginning in 2022-23
 - Completion of IXL Diagnostic Snapshot in grades 2 through 11 provides insight into student achievement and progress across six mathematical strands
 - ▶ Numbers and Operations
 - ▶ Algebra and Algebraic Thinking
 - ▶ Fractions
 - ▶ Geometry
 - ▶ Measurement
 - ▶ Data, Statistics, and Probability



Supplemental Math Tools

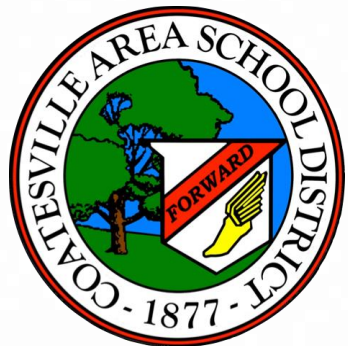
▶ IXL Math data

- CASD students in grades K-12 have answered over 1,763,000 questions in IXL so far in 2022-23
- The average number of questions per student per week is 16 which exceeds the IXL minimum goal of 15 questions required to realize the "IXL Effect"
- Teachers continue to explore IXL features:
 - ▶ Reports to support differentiation in instruction
 - ▶ Implementation of Leadership Boards to motivate students
 - ▶ Live classroom, Group jams, Quizzes, Skill plans and more



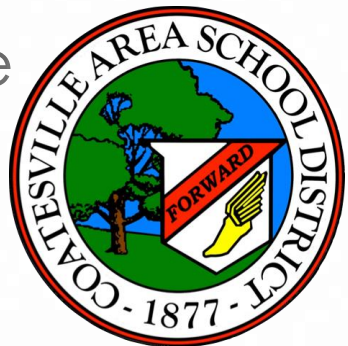
Supplemental Math Tools

- ▶ Xtra Math is available for use by students in K-7
 - XtraMath is an online math fact fluency program that helps students develop quick recall and automaticity of basic math facts (addition, subtraction, multiplication, and division)
 - XtraMath guidelines suggest approximately 10 minutes per student per day
 - XtraMath generates individual practice sessions automatically based on assessment of each student's progress
 - The Xtra Math dashboard clearly reflects the facts that have been mastered for the student
 - Teachers have noted that use of Xtra Math is also supporting Spring Math growth during Math MTSS



Mathematics Curriculum: Secondary Core Resource Pilot

- ▶ A team of sixteen secondary teachers of courses in grade 6 Mathematics through Algebra II are piloting new core resources
 - HMH Into Math and Into Algebra I/Geometry/Algebra II
 - enVision Mathematics
- ▶ Pilot process is supported by a combination of in-person training and virtual training
- ▶ Pilot teachers are collaborating as they plan lessons and explore the resources



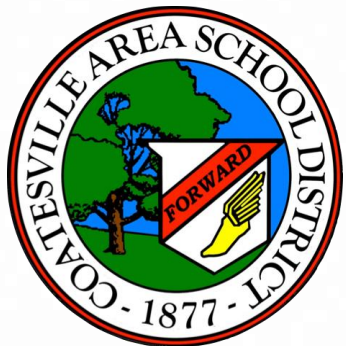
Mathematics Curriculum: Secondary Core Resource Pilot

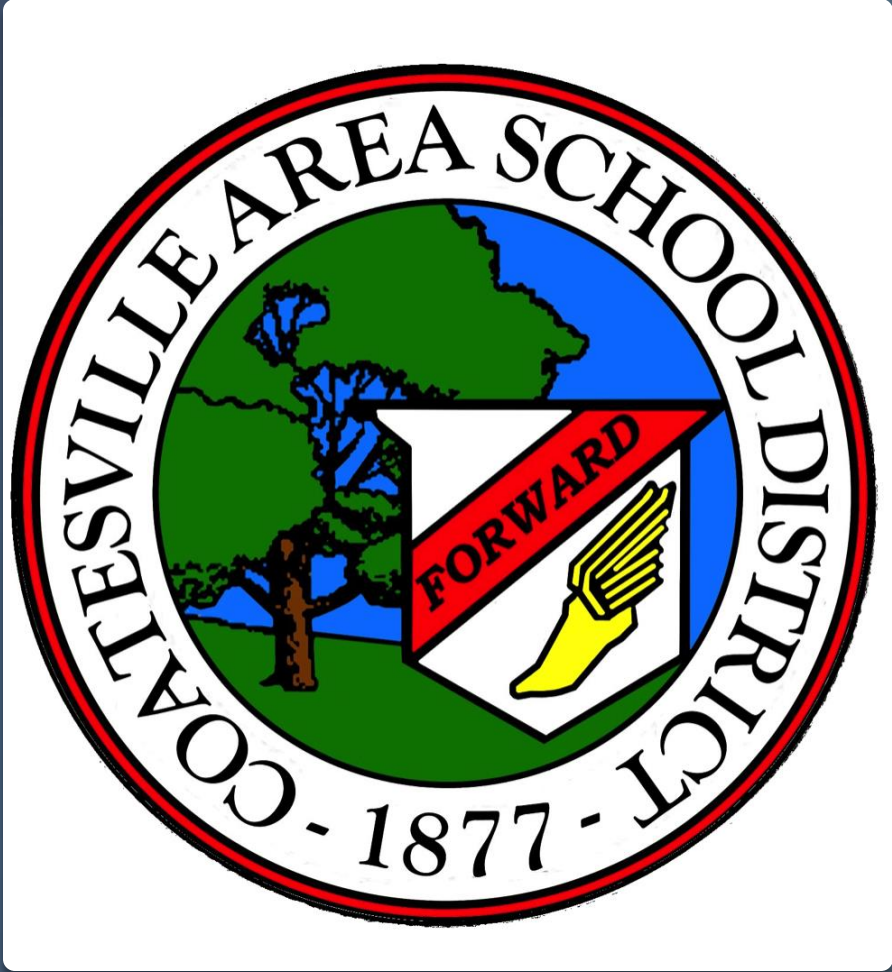
- ▶ Core resource selection will occur in mid-March
 - Pilot teachers will share completed rubrics
 - Part 1: Content Alignment to PA Core, Concept Development & Rigor, Emphasis on Skill Fluency, Differentiation for All Learners, Teaching Approach (Pedagogy)
 - Part 2: Assessment Data, Embedded Interventions, Progress Monitoring, Additional Language Support
 - Part 3: Professional Development, Digital Learning Resources, Family Support, Teacher/Student Ease of Use, Program Technical Support
 - Cost of materials and professional development will also be reviewed



Mathematics Curriculum: Elementary Core Resources

- ▶ Review of our current elementary core mathematics resources is occurring as part of the curriculum alignment process
 - Our elementary teachers continue to implement Everyday Mathematics in K-5 general education classes (2015-2016 version)
 - Comparison of the 2015-16 version with the 2020 version is underway with insight from a curriculum specialist from McGraw Hill
 - Differences include improvements in teacher materials
 - EdReports are highly rated for 2021 copyright
 - Teachers completed a survey to share feedback regarding use of EDM instructional components





Thank
You