



# Math Curriculum FAQ

- 1) Regarding the new math curriculum at the Waterloo Schools: Did the Waterloo Schools check into why Cedar Rapids, Des Moines and Ames dropped the Investigations program?

A - Des Moines Public School District is implementing *Investigations* in all buildings. Cedar Rapids and Ames were using a different edition of *Investigations* than we are implementing. Waterloo is implementing the 2<sup>nd</sup> Edition, *Investigations with the Common Core*. This edition was revised in response to concerns about the 1<sup>st</sup> edition from teachers, parents, and other educators in the math field. Waterloo Schools use the updated revision which is aligned with the high expectations of the Iowa Core.

- 2) As a parent I'm concerned the new math series in the Waterloo Schools doesn't seem to address learning math facts, such as addition, subtraction, etc. Why do they think this is acceptable?

A – The Waterloo Elementary Math Curriculum *absolutely* expects students to learn the math facts in addition, subtraction, multiplication, and division. In addition to the *Investigations* lessons and practice activities, teachers also use the *Thinking with Numbers* math program. This program provides daily lessons for students to learn strategies which lead to greater fluency with math facts.

- 3) What was the driving force behind the change in instruction and student expectations?

A- The Iowa Department of Education adopted “The Common Core State Standards” for each grade level, K-12 in November of 2010. Forty-four other states have also adopted these national standards. Iowa adopted these standards as the “Iowa Core.” The state also defined instruction to better prepare our students for success beyond high school. These standards and instructional expectations are now Waterloo Community School District’s Standards and instructional expectations.

4) Why did we need to change how we teach math?

A-Our children are not prepared to compete globally. American 15-year-olds rank 25<sup>th</sup> in math and 24<sup>th</sup> in problem-solving(compared to other developed nations.)

5) How does this help students become problem solvers?

A- Learning is increased when it's connected to the real world. Students must think about and understand how they got an answer, not just memorize what the correct answer is. Understanding their thought process makes students able to apply that process to new problems.

6) What are our State Standards?

A- Iowa has new, rigorous state-wide standards for **what** students should know and be able to do at each grade level. The state also defined instructional practices to better prepare our students for success beyond high school—**how** students learn. Together, these make up the "[Iowa Core](#)"

7) What does effective math instruction do?

A- Teach for understanding, create student-centered classroom, teach for student differences, use lessons which are rigorous and connect to students' lives, and know that all students can meet these high expectations.

8) What do we expect our students to learn?

A- Our State Standards (the Iowa Core)define: the "What"—mathematical content students should learn at each grade level, K-12, and the "How"—how students should learn mathematics.

9) What will students understand at each grade level?

A- The State Standards (Iowa Core for Mathematics) provide the sequence of learning at each grade level. Waterloo students are expected to master these expectations by the end of each school year.

10) How will students learn math?

A- Make sense of problems and persevere in solving them, reason abstractly and quantitatively, construct viable arguments and critique others' reasoning, model with mathematics, use appropriate tools strategically, attend to precision, look for and make use of structure, and look for and express regularity in repeated reasoning.

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11) What makes up the Elementary Waterloo Math Curriculum?

A- Standards defined by the Iowa Core Mathematics, Foundational Resource—*Investigations* Materials, 2<sup>nd</sup> Edition, Common Core, and “Thinking with Numbers”—a math program developed to help students develop mental math skills and learn basic math facts.

12) What makes up the Secondary Waterloo Math Curriculum?

A- Standards defined by the Iowa Core Mathematics, Middle School Foundational Resource—*Connected Mathematics 2 (CMP2)*, and High School Foundational Resources—*Center for Mathematics Education-CME Project (CME)*.

13) What’s the timeline for implementation?

A- Elementary, Fall 2011

Middle School, Spring 2012

High School, Fall 2012

14) How does our math curriculum benefit students?

A- Our curriculum and instruction: Increase engagement and excitement for math. Allow time for students to make sense of mathematical ideas. Provide students with opportunities to understand and explain mathematical ideas. Lead students to the most efficient way to solve problems once they understand what they are doing. *Students who can explain a mathematical process have a better chance of applying that process to other situations.*

15) What are the goals of instruction?

A- Make sense of mathematics, teach basic math facts, emphasize reasoning and how all the different areas of math fit together, provide students with materials which promote their understanding of math content and instruction, and engage the range of learners in understanding mathematics.

16) How can parents support their student at home?

A- Parent activities at the building level, student handbook at elementary level, textbooks at middle and high school levels, and links and resources on the Waterloo schools website.

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17) Who can I contact for more information?

A- **Elementary:** Pam Argotsinger, District Math Coach: [argotsingerp@waterloo.k12.ia.us](mailto:argotsingerp@waterloo.k12.ia.us)

Linda Garlinghouse, Director of Elementary Curriculum:

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