Chariho Regional School District



Math Curriculum Grades K-8 June 2022

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Gr. K-8 Math Task Force Membership

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Epistemological Foundations

The Chariho Regional School District believes that students learn best when they are actively engaged in and personally responsible for the learning process. Students need a safe and positive environment in which to talk purposefully about learning, to experience learning, and to observe learning. Learning is enhanced when students have an interest in and choice about what they learn. Students should be engaged in meaningful learning experiences that match their developmental status.

New learning builds on previous knowledge through a process that is challenging and rigorous. That process must encourage students to problem-solve and to think originally, critically, and creatively. Thinking and problem-solving are closely linked to a demanding core of content knowledge. Learning is most quickly assimilated when connected to student goals, when students evaluate their own work and learning habits, and when instruction appeals to a variety of learning modalities and talents.

In an environment of high expectations, sustained and directed student effort and expert teaching practices determine the extent of learning. Our schools and District will organize to encourage and support both.



Introduction

The Chariho Regional School District recognizes the need to reform the math curriculum so that it serves to communicate a clear and unified vision of teaching and learning for educators, students, and the community. This curriculum aligns with the *Common Core State Standards* adopted by the state and derived in the *Mathematical Curriculum Framework* and reflect current best practice in math teaching.

District Mission

The Chariho Regional School District ensures that all students meet high academic standards and are prepared for lifelong learning and productive global citizenship.

District Vision

With a commitment to continuous improvement, the District's highly-qualified staff engages with students in state-of-the-art facilities to master challenging content, to promote creativity, and to foster critical thinking. The District is recognized by the community as its greatest asset.



District Beliefs

We believe that high academic standards and research informed decision making are critical...

- Rigorous academic standards and high expectations, along with a robust and responsive system of supports, are the foundation of the school district.
- All professionals operate from a belief that all students can learn at high levels and meet or exceed demanding standards.
- All students at every level must be engaged in challenging academic experiences.
- Instructional and program decisions must be data-informed and evidence-based.
- Learning is a continuous lifelong process.
- Schools must prepare students to be creative and critical thinkers, problem solvers, and effective communicators.
- The physical, social, and emotional wellness of every child is necessary for optimum learning along with a robust support system.

We believe that the larger community must be fully engaged in the learning process...

- Education is a shared responsibility of students, parents, staff, and the community.
- Students thrive when supported, nurtured, and engaged by the community.
- In an environment that emphasizes school safety, everyone must be treated with kindness, dignity, and respect.
- Customer service must be a priority.
- Schools must prepare students to be team members and leaders, civic-minded, community contributors, and productive citizens of a global society.



Report on Knowledge Base for Mathematical Practice

The Standards for Mathematical Practice describe expertise that mathematics educators at all levels should seek to develop in their students. The Standards for Mathematical Practice describe ways in which developing student practitioners of the discipline of mathematics engage with the subject matter as they grow in mathematical maturity and expertise throughout the elementary, middle, and high school years. These practices rest on two sets of important "processes and proficiencies" that have long standing importance in mathematics education—the National Council of Teachers of Mathematics (NCTM) process standards and the strands of mathematical proficiency specified in the National Research Council's Report "Adding It Up." Designers of curricula, assessments, and professional development should endeavor to connect the mathematical practices to mathematical content in instruction.

The Standards for Mathematical Practice:

- 1 Make sense of problems and persevere in solving them.
- 2 Reason abstractly and quantitatively.
- 3 Construct viable arguments and critique the reasoning of others.
- 4 Model with mathematics.
- 5 Use appropriate tools strategically.
- 6 Attend to precision.
- 7 Look for and make use of structure.
- 8 Look for and express regularity in repeated reasoning.



Hallmarks of Excellence for Math

The K-8 Math Curriculum supports Chariho's Vision 2023 Priority Area 1: Striving for Excellence by providing a vertically aligned curriculum across grade levels and offers rigorous coursework that is accessible to all students. The mathematics curriculum was developed by teachers from each grade level through an open and consultative process. The curriculum also supports the Rhode Island Department of Education (RIDE) commitment to ensure that all students have access to high-quality curriculum and instruction as essential components of a rigorous education that prepares every student for success in college and/or their career. Rhode Island's latest strategic plan outlines a set of priorities designed to achieve its mission and vision.

https://www.ride.ri.gov/Portals/0/Uploads/Documents/Instruction-and-Assessment-World-Class-Standards/Curriculum/Frameworks/RIDE-CF-Math-Version1-October2021.pdf



Statement of Educational Goals for Math

RIDE envisions an educational landscape in which each Rhode Island graduate is well prepared to lead a fulfilling and productive life, succeed in academic and employment settings, and contribute meaningfully to society. He or she can think critically and collaboratively and act as a creative, self motivated, culturally and globally competent learner (RIDE Strategic Plan, 2021).

Proficiency in mathematics is one of the key characteristics of a well-prepared graduate. As such, the goal of the mathematics framework is to create conditions in which all students will gain the ability to reason, communicate, and effectively problem-solve with mathematics. Through the use of research based strategies, RIDE will establish policy and guidance to build our students' appreciation for, understanding of, and ability to apply mathematics in the real world, thus preparing them to be successful and actively engaged citizens in the real world.

https://www.ride.ri.gov/Portals/0/Uploads/Documents/Instruction-and-Assessment-World-Class-Standards/Curriculum/Frameworks/RIDE-CF-Math-Version1-October2021.pdf



Lists of Math Curriculum Documents

Grades K-8 Math Curriculum Documents

(Click on each grade level below to view the Grade Level curriculum)

Kindergarten Math

Grade 1 Math

Grade 2 Math

Grade 3 Math

Grade 4 Math

Grade 5 Math

Grade 6 Math

Grade 7 Math

Grade 8 Math



References

Mathematics - Ride.ri.gov.

https://www.ride.ri.gov/InstructionAssessment/Mathematics.aspx

"Mathematics Standards." *Common Core State Standards Initiative*. National Governors Association Center for Best Practices and Council of Chief State School Officers, 2010. Web. 18 Oct. 2016. http://www.corestandards.org/Math/>.

Rhode Island State Assessment Program - Ride.ri.gov. RHODE ISLAND CORE STANDARDS FOR MATHEMATICS. (2021, March). Retrieved March 15, 2022, from https://www.ride.ri.gov/Portals/0/Uploads/Documents/Instruction-and-Assessment-World-Class-Standards/Curriculum/Frameworks/RIDE-CF-Math-Version1-October2021.pdf