Inspiring Excellence
Upper Merion Area School District
435 Crossfield Road • King of Prussia, PA 19406 • 610-205-6400 • Fax 610-205-6433 • www.umasd.org

Upper Merion Area School District
Curriculum Information for Parents and Community

Grade 5

Fifth Grade is the final year of the intermediate grades (3-5) but the first year in our middle school building. The Fifth Grade camping trip is one of the most anticipated events for students in this grade. Considering that students are in their first year in middle school, we are sure to provide a rich, supportive learning environment for the whole child: academically, socially, and emotionally. The school counselor that is assigned to students in Fifth Grade follows them consistently through Eighth Grade.

Students in Fifth Grade participate in three blocks of academic classes each day: English Language Arts, Math, and Integrated Science/Social Studies. Each student is assigned to a team of teachers who teach the same students. Students also have Unified Arts classes each day. Which Unified Arts class a student attends changes periodically over the course of the school year. Students are invited to participate in Orchestra and/or Band on a pull-out basis.

If you have any questions regarding your child's educational program, please contact your child's team of teachers or school counselor for more information.

ENGLISH LANGUAGE ARTS (ELA)
Fifth Grade students develop academic communication skills through regular practice in listening, speaking, reading, and writing. Visual and technological communication is integrated. Specific ELA skills in Fifth Grade include:
-Read and comprehend grade-level literary fiction, literary nonfiction, and informational text independently and proficiently
-Know and apply grade-level phonics, sight words, and word analysis skills in reading with accuracy and fluency
-Determine a theme of a text from details in the text
-Cite textual evidence by quoting from the text to explain what the text says explicitly and to make inferences
-Compare and contrast two or more characters, settings, or events in a story or drama, drawing on specific details in the text
-Draw on information from multiple print or digital resources
-Write informative texts using definitions, facts, concrete details, quotations, or other information and examples related to a nonfiction topic
-Write narratives with an awareness of style
-Write opinion pieces with reasons that are supported by facts and details and drawn from credible sources
-Choose words and phrases to convey ideas precisely
-Demonstrate a grade-appropriate command of the conventions of standard English grammar, usage, capitalization, punctuation, and spelling
-Use cursive writing and iPad to complete assignments
Upper Merion uses *Wonders* by McGraw Hill as an instructional resource to teach Balanced Literacy in Grades K-6. Overall, our teachers instruct students toward the mastery of the Pennsylvania Core Standards.

MATHEMATICS
Fifth Grade students will start to become more passionate about mathematics as they integrate fractions into their mathematics repertoire by being able to add and subtract fractions fluently with an introduction to

multiplying and dividing fractions. Students will extend their understanding of division to include decimals and will explore the concept of volume. Students will continue to build a solid foundation for Algebra and Geometry.

- Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.
- Understand place value by recognizing that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and 1/10 of what it represents in the place to its left.
- Read, write, and compare decimals to the thousandths.
- Read and write decimals to the thousandths using base-ten numerals, number names, and expanded form, e.g., 347.392 = 3 x 100 + 4 x 10 + 7 x 1 + 3 x (1/10) + 9 x (1/100) + 2 x (1/1000).
- Compare two decimals to the thousandths based on the meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons.
- Use place value understanding to round decimals to any place.
- Fluently multiply multi-digit whole numbers using the standard algorithm.
- Find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.
- Add and subtract fractions with unlike denominators (including mixed numbers) by replacing given fractions with equivalent fractions in such a way as to produce an equivalent sum or difference of fractions with like denominators. For example, 2/3 + 5/4 = 8/12 + 15/12 = 23/12. (In general, a/b + c/d = (ad + bc)/bd.)
- Multiply a fraction or whole number by a fraction.
- Explain why multiplying a given number by a fraction greater than 1 results in a product greater than the given number; explaining why multiplying a given number by a fraction less than 1 results in a product smaller than the given number; and relating the principle of fraction equivalence a/b = (n x a)/(n x b) to the effect of multiplying a/b by 1.
- Solve real-world problems involving multiplication of fractions and mixed numbers.
- Divide unit fractions by whole numbers and whole numbers by unit fractions.
- Convert among different-sized standard measurement units within a given measurement system (e.g., convert 5 cm to 0.05m), and use these conversions in solving multi-step, real-world problems.
- Recognize volume as an attribute of solid figures and understand concepts of volume measurement.
- Measure volumes by counting unit cubes, using cubic cm, cubic in, cubic ft, and improvised units.
- Apply the formulas V = l x w x h and V = b x h for rectangular prisms to find volumes of right rectangular prisms with whole-number edge lengths in the context of solving real-world and mathematical problems.
- Represent real-world and mathematical problems by graphing points in the first quadrant of the coordinate plane, and interpret coordinate values of points in the context of the situation.
- Classify two-dimensional figures in a hierarchy based on properties.

INTEGRATED SCIENCE/SOCIAL STUDIES

Science and Social Studies are integrated into a single course in the Middle School Lower House (Gr. 5-6). The Essential Question in science is: What is the Universe and what is the Earth's place in it? Science content includes the study of ecosystems, including photosynthesis and food webs. Students investigate the water and nitrogen cycles and consider the pull of gravity. Students study various spheres (e.g., atmosphere, biosphere) and the basic elements of the scientific method. Social Studies content begins with map skills and identification of continents and oceans. Students study the Western Hemisphere, with a focus on Native American cultures and European exploration and settlements in North America. Native American relationships with European immigrants, triangle trade, and the importance of the sky are concepts explored in Fifth

Grade. Integrated Science and Social Studies concludes with the Fifth Grade camp experience (in non-Covid years), with emphasis on team-building activities, the observation of nature, and discussion regarding the concept of freedom.

UNIFIED ARTS

The following courses run for consecutive days for a full marking period:

Art - Elements of Art are featured with an exploration of 2D and 3D materials in the form of drawing, painting, crafts production

Music - Focuses on singing, and playing recorders and percussion

Computer Science - In 5th grade students start learning how to code using the code.org Course 2 curriculum. Students will create programs to solve problems and develop interactive games or stories they can share. They will learn about loops, debugging, conditional statements, and nested loops.

Health - The 5th grade health curriculum covers a variety of areas including: Protecting Yourself Against Disease (Communicable Diseases and Noncommunicable) - HIV/AIDS is discussed briefly in this unit, Medicines and Illegal Drugs, Your Safety/Basic first aid, and Taking Care of your Health/Hygiene. Parents/Guardians/Caregivers can contact their child's teacher if they would like specifics on what is being taught in each unit.

Physical Education - The Physical education curriculum covers: Fitness, Cooperative Games, and Tactical Sports. Students will participate in a variety of sports including: Soccer, basketball, floor hockey, volleyball, aerobics, flag football, and softball. In addition, students will engage in a swimming unit where they will either learn to swim or understand different components of aquatic fitness.

The following courses run on either a 13-day or 26-day cycle:

STEM and Engineering - The Technology and Engineering Education program is an exploratory program that focuses on developing technology problem solving skills, technological literacy, and 21st century skills through hands-on activities integrating Science, Technology, Engineering, and Mathematics (STEM). In 5th grade students take Invention, Innovation and Inquiry (Introduction to Technology), an activity-based course that introduces students to technology by examining Design and Engineering Technology. Students will study and apply problem solving procedures, principles of flight, 21st century computer skills, technical drawing, simple machines and mechanisms, robotics and system control, structural engineering. Example Projects include: 3D keychains, Lego Mindstorm Robotics, Straw rockets, Engineering and structures - various building challenges focused on group work, and Introduction to Standard and Metric measurement.

Family and Consumer Science (FCS) - In 5th and 6th grade students will focus on learning how to sew using a variety of techniques. Students will be immersed in hands-on project-based learning by creating a foundation of sewing including: sewing notions; using a seam ripper, shears, needles, pins, tape measures, practice usage; knots; stitching, basic straight/running stitch, tying off, overcast; and sewing different types of buttons. The students will complete 1 or 2 sewing projects using everything they have learned. Students will learn how to participate safely in classroom activities and sewing labs.

Leadership - Character and resiliency are the focus of our Leadership course. Students examine growth mindset, perseverance, self-advocacy, problem-solving, time management, goal setting, and mindfulness.

Physical Education - In addition to marking-period Physical Education, students have an additional short cycle of PE

STEM in Music - Students create soundscapes using classroom instruments and work together to perform scenes from "The Warrior and the Wiseman" using poetry, movement, and musical accompaniment.

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Pennsylvania System of School Assessment (PSSAs)
In Fifth Grade, students take PSSA tests in ELA and math. The Text Dependent Analysis (TDA) essay makes up 25% of a student's ELA score.