

Information & Frequently Asked Questions

What are the beliefs about mathematics in SPS?

- In mathematics, learning should focus on developing an understanding of grade-level concepts and procedures through **problem solving, reasoning, and discourse**.
- In mathematics, students need to have a **range of strategies and approaches** from which to choose in solving problems, including, but not limited to, general methods, standard algorithms, and procedures.
- In mathematics, students can learn through **exploring and solving** contextual and mathematical problems.
- In mathematics, the teacher will engage students in **tasks that promote reasoning and problem solving and facilitate discourse** that move students toward shared understanding of mathematics.
- In mathematics, the student will be actively involved in **making sense** of mathematics tasks by using **varied strategies and representations, justifying solutions, making connections to prior knowledge and familiar contexts and experiences, and considering the reasoning of others**.
- In mathematics, students are provided with **appropriate challenges**, encouraged to persevere in solving problems, and supported in **productive struggle** in learning.
- In mathematics, students have:
 - The right to be confused
 - The right to claim a mistake
 - The right to speak, listen, and be heard
 - The right to write, do, and represent what makes sense

What are students supposed to be learning in their math class this year?

The Missouri Learning Standards define the knowledge and skills students need in each grade level and course for success in college, other post-secondary training and careers. The Missouri Learning Standards help ensure students learn basic and higher-order skills, including problem solving and critical thinking. The standards are relevant to the real world and reflect the knowledge and skills students need to achieve their goals. Learning outcomes improve when students, parents and teachers work together toward shared goals. The Missouri Learning Standards give school administrators, teachers, parents and students a road map for learning expectations in each grade and course. Below you will find links to the K-5 and 6-12 Missouri Learning Standards. You may visit the [Missouri Department of Elementary & Secondary Education Mathematics Curriculum Website](#) for expanded information on these standards, or for more information on their close alignment to Common Core State Standards and their newly released priority standards.

K-5	6-12
Missouri Learning Standards	Missouri Learning Standards

What mathematics curriculum is used in SPS?

Our math curriculum is developed by a team of teachers at each grade level in our district. This team creates a guide that ensures that lessons are aligned to Missouri Learning Standards and that goals, activities, and resources are gathered to be easily accessible to our district teachers. A core resource is adopted for each grade band that is used as a basis for this team of teachers to begin working with when curriculum writing. The seated core curriculum resources for each grade band are:

Elementary School Illustrative Mathematics Partnership with Imagine Learning Classroom	Middle School Illustrative Mathematics Partnership with Desmos	Middle School Hand2Mind Strategic Math Courses	High School Illustrative Mathematics Partnership with McGraw-Hill	High School Cengage Learning Choice & AP Courses
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Launch is a virtual learning platform based in Springfield Public Schools that offers fully virtual course options to K-12 students across the state of Missouri. The math curriculum that is utilized in Launch is also developed by a team of teachers at each grade level, but math leaders and teachers recognize that learning resources and materials needed in seated and online courses often differ. For this reason, different core curriculum resources are in use for SPS students taking virtual math courses through Launch. The virtual core curriculum resources for each grade band are:

Elementary School Zearn	Middle School Discovery Education Techbook	High School Discovery Education Techbook	High School Cengage Learning Choice & AP Course
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What software might my student be working on in their math class?

In addition to a core curriculum resource, adaptive software is adopted in each grade band (K-8) to better support individual students, small groups, differentiation, and practice within the classroom. These do not take the place of core grade-level curriculum or instruction in the classroom and only serve as a supplemental resource. These programs are often self-paced and independently provide feedback to students as they work. The adaptive software resources for each grade band are:

Elementary School Imagine Math	Middle School Imagine Math
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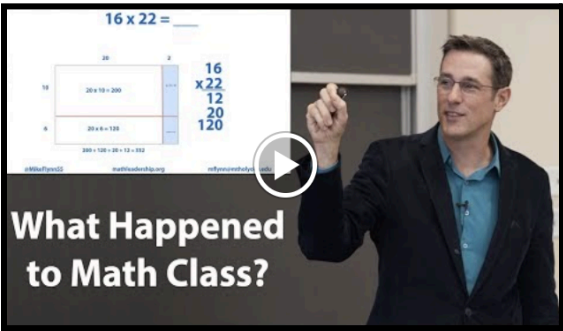
How can I support what students are doing in class outside of school?

A student's teacher is the best resource to communicate with regarding when students will encounter lessons and activities from the SPS curriculum. Below are family resources put together by Illustrative Mathematics and Desmos to bridge the classroom to the community to help families better understand the content that students are learning about within each unit, provide relevant vocabulary, and even include a handful of practice problems and answers that can be discussed outside of the classroom.

Consider engaging in national math education leader Mike Flynn's information session below about understanding why math looks different today and how to help your child. Topics discussed include sorting

through misinformation, the illusion of understanding, fostering reasoning, and supporting your student’s learning. Click the video below to open in a new tab.

<u>K-5 Illustrative Math Family Resources</u>
<u>6-8 IM/Desmos Family Resources</u>
<u>9-12 Illustrative Math Family Resources</u>



The Council of Great City Schools has also developed the below Roadmaps for Supporting Your Student with Grade-Level Mathematics. These resources include general information about grade-level material, examples of skills and strategies that students will develop throughout the year, and information about partnering with your student’s teacher to learn and grow together.

<u>Kindergarten</u>	<u>Grade 2</u>	<u>Grade 4</u>	<u>Grade 6</u>	<u>Grade 8</u>
<u>Grade 1</u>	<u>Grade 3</u>	<u>Grade 5</u>	<u>Grade 7</u>	<u>High School</u>

Below are some recommended quality websites featuring math games and activities you can access with your family.

<u>K-5</u>	<u>6-12</u>
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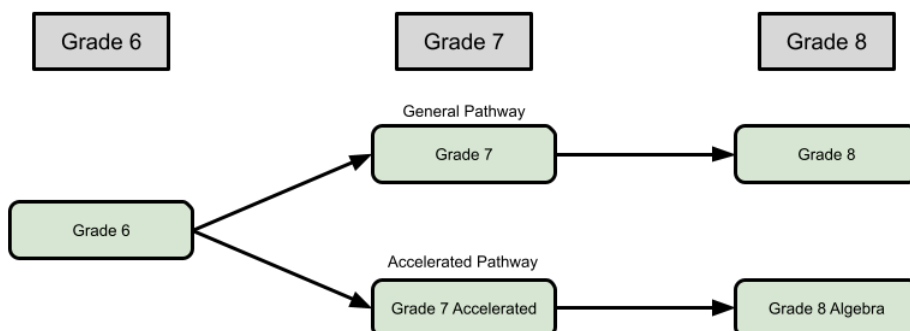
What are some common routines found in SPS math classrooms?

People use routines for all kinds of things. Routines give structure to time and interactions. People like structure. When a child comes home from school, there might be a routine. They expect a snack, homework time, play time, dinner, some television, a bath, pajamas, a book, and to get tucked into bed. They might have responsibilities, like setting the table for dinner, and engage in predictable dialog along the way, like sharing something that happened at school. All classrooms have routines, too. Maybe when students enter the room, they always turn in their assignments, sit down, take out their supplies, say hi to other students, and start on a warm-up. Maybe there is a routine for being excused to use the restroom or for borrowing a pencil. You may have heard of routines used for instruction. These are also routines: they give structure to time and interactions. But their purpose is for learning academic content. They are a good idea for the same reason all routines are a good idea: they let people know what to expect, and they make people comfortable. Here are some of the widely used routines that help support the structure and learning of our SPS math classes.

<u>Instructional Routines</u>	<u>Language Routines</u>
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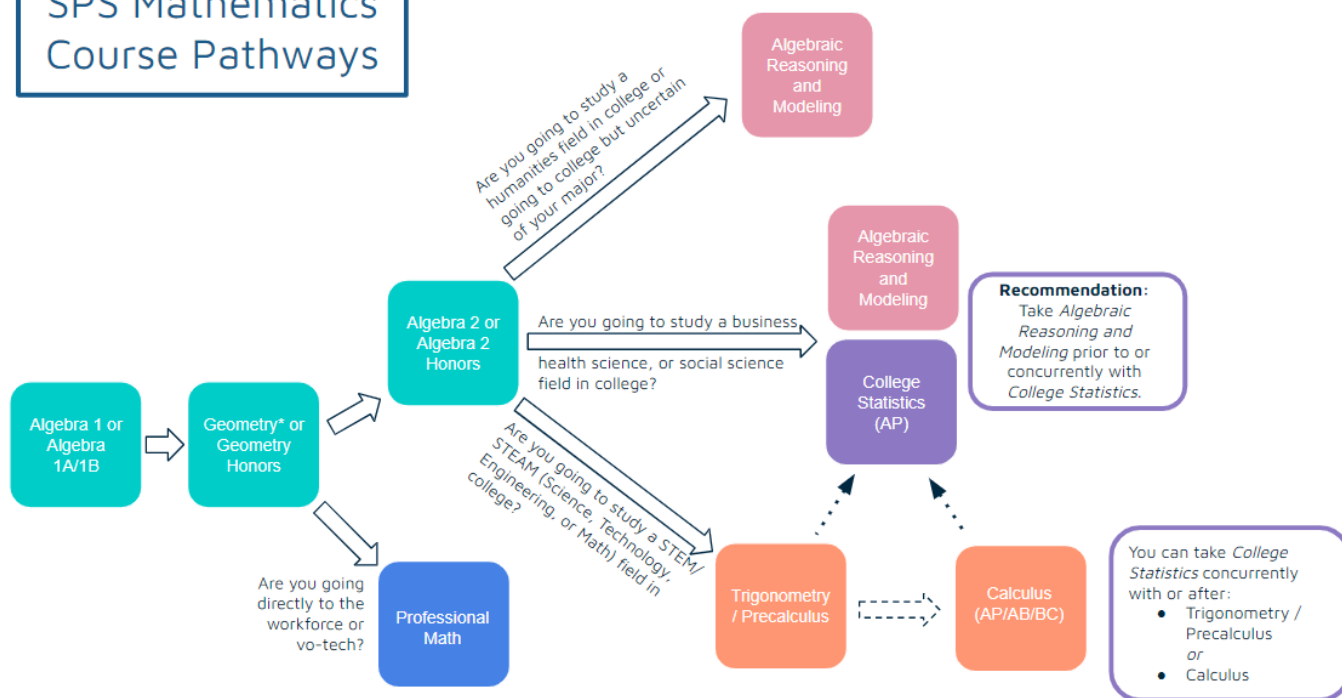
What are the pathways options for math classes in SPS?

MIDDLE SCHOOL



HIGH SCHOOL

SPS Mathematics Course Pathways



*Geometry Concepts is available at Central High School

What assessments do students take in math classrooms at SPS?

Students in grades 3-8 will take a state-wide grade-level assessment, typically in April, that is developed by and reported to the Missouri Department of Elementary and Secondary Education. Students enrolled in Algebra 1 will take a similar End-of-Course exam developed by and reported to Missouri DESE. If students are enrolled in Algebra while in middle school, they will take an End-of-Course exam in their Algebra II class when they complete the course in high school. You may visit the [Missouri DESE Assessment Website](#) to learn more about these assessments.

Students in grades K-12 take the Galileo Benchmark diagnostic assessment at the beginning, middle and end of the school year to monitor growth and progress toward achieving math and reading standards. These benchmarks provide teachers, schools, and departments with relevant feedback and information on how their students are progressing and allow for educator team discussions on adjusting and modifying instruction.

Students will also take a variety of quizzes or unit tests in their classes, depending on their grade-level or course. Students will most likely complete an exit ticket each day to better understand their learning from that day's lesson. Requirements on these assessments and grading practices vary site by site.

