

MATH COURSE & PLACEMENT INFORMATION NIGHT

Avon Grove Intermediate School
May 28, 2019

THE PURPOSE OF OUR EVENING

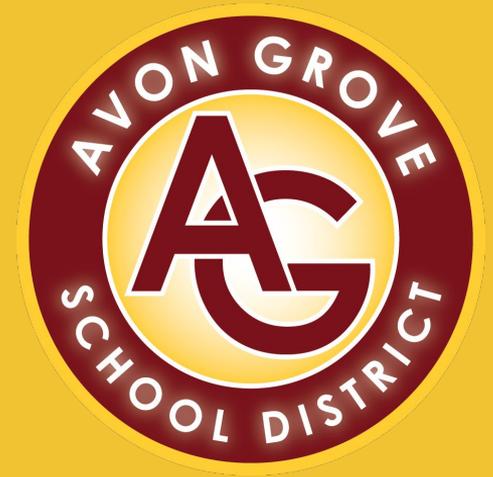
The purpose of this information session is to inform our families of our mathematics program from Grades 5-8 including the courses offered at AGIS as well as the course enrollment criteria.

AGSD STRATEGIC GOALS

1. Increase Learning Opportunities For All
2. Utilize a Systems Thinking Approach
3. Establish a Communications and Community Outreach Plan



AGIS CORE VALUES



AGIS is a place for...

- Growing academically, socially, and emotionally
- Celebrating our successes
- Challenging ourselves to be our best
- Lifelong learning

AGSD MATHEMATICS PHILOSOPHY

The Avon Grove School District is committed to providing a mathematically rich environment that meets the diverse needs of all students. The District's mathematics curriculum offers rigorous, high-quality academic opportunities aligned to the Pennsylvania Core Standards. The Standards are robust, relevant to the real world, and reflect the knowledge and skills necessary to succeed beyond the high school experience. Embedded in the Pennsylvania Core Standards are the Mathematical Practices that promote habits of mind which are required to reach a level of mathematical proficiency.

AGSD MATHEMATICS BELIEFS

The Avon Grove School District is committed to building a strong community of critical thinkers who are continuously challenged and collaboratively engaged in daily, purposeful and authentic experiences in mathematics.

We believe that all students will have achieved individual success in mathematics when he/she can...

- Make sense of problems and persevere in solving them.
- Reason abstractly and quantitatively.
- Construct viable arguments and critique the reasoning of others.
- Model with mathematics.
- Use appropriate tools strategically.
- Attend to precision.
- Look for and make use of patterns or structure.
- Look for and express regularity in repeated reasoning.

AGIS AND FSEMS COURSE OFFERINGS

Student Grade	Grade Level Course	Accelerated Options
Grade 5	Core 5	5/6 Compacted
Grade 6	Core 6	6/7 Compacted
		Pre-Algebra
Grade 7	Core 7	7/8 Compacted
		Algebra I*
Grade 8	Core 8	Algebra I*
		Honors Geometry

GRADE 5 CORE

This course is designed to develop an understanding of why division procedures work based on the meaning of base-ten numerals and properties of operations. It develops fluency with whole number and decimals using the four operations. It will develop fluency with addition and subtraction of fractions, and develop an understanding of multiplication and division of fractions. This course will develop an understanding of volume.

GRADE 5 ACCELERATED

Compacted 5 / 6

This course is designed to complete the 5th grade curriculum (see above) as well as develop understandings of numbers to the system of rational numbers. It will develop fluency with multi-digit numbers and find common factors and multiples, and divide fractions by fractions. It will apply and extend previous understandings of arithmetic to algebraic expressions. It will also solve one-variable equations and inequalities, and represent and analyze quantitative relationships between dependent and independent variables.

GRADE 6 CORE

This course is designed to connect ratio and rate to whole number multiplication and division and apply those concepts to solve problems. It will complete an understanding of division of fractions and extend the notion of numbers to the system of rational numbers, including negative numbers. It will include writing, interpreting, and using expressions, and equations, as well as, develop understanding of statistical thinking.

GRADE 6 ACCELERATED

6/7 Compacted

This course is designed to complete the 6th grade curriculum, as well as analyze proportional relationships and use them to solve real world problems. It will apply and extend previous understandings of operations with fractions to add, subtract, multiply and divide rational numbers. It will use properties of operations to generate equivalent expressions and solve mathematical problems using numerical and algebraic expressions and equations. It will solve problems involving angle measure, area, surface area and volume.

Pre Algebra

This course is designed to complete 6th grade standards of Ratio and Proportional reasoning, Geometry and Statistics and Probability. The course will also complete all 7th grade standards of developing understanding of and applying proportional relationships; developing understanding of operations with rational numbers and working with expressions and linear equations. It will solve problems including scale, area, surface area, and volume. Statistics and Probability will include drawing comparative inferences from random sampling, investigate chance.

COURSE PLACEMENT CRITERIA

Course placement is determined by utilizing the following criteria:

Overall Scores on MAP + Common Assessment Avg. + Math Practices Rubric

To enter an accelerated course:

- A student must...
 - Have 2 out of 3 MAP scores in the 90th percentile or above
 - A 90% or above for their common assessment average
 - A 80% or higher on the math practices rubric

To remain in an accelerated course:

- A student must maintain a score of 85% or above on accelerated course common assessments

Families will be informed of course enrollment concurrently with progress reporting the week of June 18th.

MAP ASSESSMENT

- AGSD Universal Screening Assessment for Grades K-6
- Adaptive Assessment
 - The test automatically adjusts the level of difficulty based on student performance
- Teachers use this data extensively for:
 - Measuring student growth and predicting student achievement
 - Student academic goal setting
- Data is also used to create “Learning Pathways” in Study Island
- For more information, visit the NWEA website (www.nwea.org)

MATHEMATICAL PRACTICES RUBRIC



Mathematics Practices		Students:	Notes:
Overarching habits of mind of a productive math thinker	1. Make sense of problems and persevere in solving them	<ul style="list-style-type: none"> Analyze information and explain the meaning of the problem Actively engaged in problem solving (Develop, carry out, and refine a plan) Show patience and positive attitudes Plan a solution pathway instead of jumping to a solution. Ask if their answers make sense. 	/ 15
	6. Attend to precision	<ul style="list-style-type: none"> Calculate accurately and efficiently Explain thinking using mathematics vocabulary Use appropriate symbols and specify units of measure 	/ 15
Reasoning and Explaining	2. Reason abstractly and quantitatively	<ul style="list-style-type: none"> Represent a problem symbolically Justify and/or explain their thinking Use numbers and quantities flexibly by applying properties of operations and place value Examine the reasonableness of their answers/calculations 	
	3. Construct viable arguments and critique the reasoning of others	<p>To self-advocate and to participate in and contribute to class and group activities, students...</p> <ul style="list-style-type: none"> Make conjectures to explore their ideas Justify solutions and approaches Listen to the reasoning of others, compare arguments, and decide if the arguments of others makes sense Ask clarifying and probing questions 	

Mathematics Practices		Students:	Notes:
Modeling and Using Tools	4. Model with mathematics	<ul style="list-style-type: none"> • Apply prior knowledge to new problems and reflect • Represent mathematics to describe a situation either with an equation or a diagram and interpret the results of a mathematical situation. • Apply formulas and equations where appropriate • Ask themselves, "How can I represent this mathematically?" 	
	5. Use appropriate tools strategically	<ul style="list-style-type: none"> • Select and use tools strategically (and flexibly) to visualize, explore, and compare information • Use technological tools and resources to solve problems and deepen understanding • Use available tools, recognizing the strength and limitation of each • Use estimation and other mathematical knowledge to detect possible errors 	
Seeing structure and generalizing	7. Look for and make use of structure	<ul style="list-style-type: none"> • Look for, develop, and generalize relationships and patterns • Apply conjectures about patterns and properties to new situations • Look for the overall structure and patterns in mathematics 	/10
	8. Look for and express regularity in repeated reasoning	<ul style="list-style-type: none"> • Look for methods and shortcuts in patterns in repeated calculations • Evaluate the reasonableness of intermediate results and solutions 	

QUESTIONS?

Thank you for attending tonight's session!

If you have questions pertaining to the mathematics program at AGIS, we would be happy to field those now.

Any questions specific to an individual student should be directed to AGIS administration following tonight's session.

Individual student course enrollments will be sent to families concurrently with progress reports on June 14th.