

Abington Heights School District Grade 1 Mathematics Curriculum



In First Grade, students develop their numeracy skills through the following areas of study:

1. Numbers and Operations in Base Ten
2. Operations and Algebraic Thinking
3. Geometry
4. Measurement and Data

Board Approval Date: 5/3/2023

Adoption: 2023 - 2024 SY

Review Date:

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

AH MATHEMATICS

Where collaborative problem solving and
perseverance lead to excellence



Abington Heights Math Framework

Stakeholders	Actions
Students	<ul style="list-style-type: none"> ★ Engage in mathematical discussions, share their ideas openly, be inquisitive, seek to understand and learn more about mathematical concepts, and try their best daily. ★ Exhibit creativity and curiosity in problem solving individually and collaboratively. ★ Persevere in engaging and challenging daily mathematical practice. ★ Come prepared to learn every day.
Teachers	<ul style="list-style-type: none"> ★ Create a safe and collaborative classroom environment where students feel vested in a shared vision for mathematical excellence. ★ Develop high quality instruction that meets the needs of all learners through differentiation. ★ Use a variety of 21st century methodologies to advance learning. ★ Partner with parents and guardians to support student success. ★ Establish a collaborative community within the building and amongst grade levels to ensure a cohesive level of instruction.
Building Leaders	<ul style="list-style-type: none"> ★ Deeply understand the needs of teachers, students, the instructional materials being used, programs being implemented, and the expectations for state-level assessment scores <ul style="list-style-type: none"> ○ Knowledgeable about program and grade level standards ○ Ensure consistent and equal access to high-quality instructional materials and resources, building. ★ Be partners with teachers, students and families: <ul style="list-style-type: none"> ○ Provide guidance and support to the mathematical community. ○ Understand needs of teachers, students and families. ★ Trust the educators to make professional decisions based on program, student, and district needs.
Central Admin	<ul style="list-style-type: none"> ★ Effectively communicate to the school board and community specific areas of need and how to support teachers and building leaders in a quest for mathematical excellence ★ Deeply understand the needs of teachers, students, the instructional materials being used, programs being implemented, and the expectations for state-level assessment scores <ul style="list-style-type: none"> ○ Have a common metric for mathematical excellence. ○ Ensure consistent and equal access to high-quality instructional materials and resources, district. ○ Re-examine best practices/curriculum routinely (6 years). ★ Support a culture of collaboration between the other stakeholder groups to maintain the standard of excellence of the Abington Heights ★ Trust the educators to make professional decisions based on program, student, and district needs.
Parents/Community	<ul style="list-style-type: none"> ★ Be a strong support system and contribute by building a positive math community for students. ★ Encourage a positive math mindset. ★ Have conversations with their children about school and ask what they are learning about in school. ★ Be open, receptive to the district's ideas about student learning and reach out to teachers/school to learn more about how they can support. ★ Trust the educators to make professional decisions based on program, student, and district needs.
School Board	<ul style="list-style-type: none"> ★ Provide the fiscal resources to support: <ul style="list-style-type: none"> ○ Highly qualified professionals for mathematics ○ High-quality instructional materials ○ Effective and efficient math interventions for remediation ○ Professional development for math content and instructional practices ★ Trust the educators to make professional decisions based on program, student, and district needs.

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PA Core Standards	Everyday Mathematics Grade 1 Lessons
Numbers and Operations in Base Ten	
CC.2.1.1.B.1 Extend the counting sequence to read and write numerals to represent objects.	Routines 1, 2, 3, 4, 5, 6; 1-1, 1-2, 1-3, 1-4, 1-5, 1-6, 1-7, 1-8, 1-9, 1-11, 2-1, 2-3, 2-4, 2-7, 3-3, 3-5, 3-6, 3-7, 3-8, 3-9, 3-10, 3-11, 4-4, 4-5, 5-2, 5-3, 5-6
CC.2.1.1.B.2 Use place-value concepts to represent amounts of tens and ones and to compare two digit numbers.	Routines 1, 2, 3, 5; 1-2, 1-3, 1-6, 2-2, 2-6, 3-1, 4-5, 5-1, 5-2, 5-3, 5-4, 5-5, 5-6, 5-8, 5-9, 5-11, 6-6, 6-8, 6-10, 6-11, 8-10, 8-11, 9-8, 9-9
CC.2.1.1.B.3 Use place-value concepts and properties of operations to add and subtract within 100.	Routines 1, 2, 3, 5; 4-11, 5-11, 5-12, 6-2, 6-7, 6-8, 7-8, 7-9, 7-10, 8-10, 8-11, 9-1, 9-2, 9-3, 9-4, 9-5, 9-6, 9-7, 9-8, 9-9
Operations and Algebraic Thinking	
CC.2.2.1.A.1 Represent and solve problems involving addition and subtraction within 20.	Routines 1, 2, 3, 4, 5, 6; 1-1, 1-3, 1-5, 1-7, 1-8, 1-10, 1-11, 2-1, 2-2, 2-3, 2-4, 2-5, 2-6, 2-8, 2-9, 2-10, 2-11, 3-1, 3-2, 3-3, 3-4, 3-5, 3-6, 3-7, 3-8, 3-9, 3-10, 3-11, 4-5, 4-6, 4-7, 4-8, 4-9, 4-10, 5-4, 5-5, 5-7, 5-9, 5-10, 5-11, 5-12, 6-2, 6-3, 6-4, 6-5, 6-6, 6-7, 6-8, 6-9, 7-1, 7-2, 7-3, 7-4, 7-6, 7-8, 7-9, 7-10, 8-7, 8-9, 8-11, 9-2, 9-4, 9-5, 9-6, 9-7, 9-8
CC.2.2.1.A.2 Understand and apply properties of operations and the relationship between addition and subtraction.	Routines 1, 3, 5, 6; 1-10, 2-1, 2-5, 2-8, 2-9, 2-10, 2-11, 3-1, 3-2, 3-4, 3-5, 3-6, 3-7, 3-8, 3-9, 3-10, 4-8, 4-9, 4-10, 5-4, 5-5, 5-7, 5-9, 5-10, 6-2, 6-3, 6-9, 7-1, 7-2, 7-3, 7-4, 7-6, 7-8, 7-9, 7-10, 9-4, 9-8
Geometry	
CC.2.3.1.A.1 Compose and distinguish between two- and three-dimensional shapes based on their attributes.	1-1, 1-3, 1-9, 4-5, 6-3, 7-5, 7-6, 7-7, 8-1, 8-5, 8-6, 8-7, 9-10
CC.2.3.1.A.2 Use the understanding of fractions to partition shapes into halves and quarters.	7-6, 8-2, 8-3, 8-4, 8-5, 8-8, 9-4, 9-11

PA Core Standards	Everyday Mathematics Grade 1 Lessons
Measurement and Data	
CC.2.4.1.A.1 Order lengths and measure them both indirectly and by repeating length units.	3-3, 4-1, 4-2, 4-3, 4-4, 5-7, 5-8, 9-1
CC.2.4.1.A.2 Tell and write time to the nearest half hour using both analog and digital clocks.	Routine 6; 6-1, 7-11, 8-8
CC.2.4.1.A.4 Represent and interpret data using tables/charts.	Routines 3, 4, 6; 1-7, 1-8, 2-4, 4-5, 4-6, 8-3, 8-9

Portrait of an Abington Heights 1st Grade Mathematician



By the end of 1st Grade, students will:

Numbers & Operations in Base Ten	Operations and Algebraic Thinking	Geometry	Measurement and Data
<ul style="list-style-type: none"> <input type="checkbox"/> Count to 120 <input type="checkbox"/> Read, write, and represent numerals up to 120 <input type="checkbox"/> Understand place value (emphasis on 10s and 1s) <input type="checkbox"/> Compare 2 two-digit numbers using place-value concepts <input type="checkbox"/> Add within 100 including adding a two-digit number and a one-digit number <input type="checkbox"/> Mental math (10 more or less than any 2-digit number) <input type="checkbox"/> Subtract multiples of 10 (10-90) from multiples of 10 (10-90) 	<ul style="list-style-type: none"> <input type="checkbox"/> Add and subtract within 20 <input type="checkbox"/> Fluently add and subtract within 10 <input type="checkbox"/> Apply the commutative property of addition (If $6+4=10$, then $4+6=10$) <input type="checkbox"/> Apply the associative property of addition ($3+5+6$ is the same as $3+11$) <input type="checkbox"/> Represent and solve problems involving addition and subtraction within 20 <input type="checkbox"/> Evaluate if equations involving addition and subtraction are true <input type="checkbox"/> Solve word problems involving addition of 3 whole numbers whose sum is within 20 	<ul style="list-style-type: none"> <input type="checkbox"/> Reason with circles and rectangles and their attributes <input type="checkbox"/> Divide shapes into 2 and 4 equal shares and use vocabulary of half of, fourth of, and quarter of 	<ul style="list-style-type: none"> <input type="checkbox"/> Measure length using non-standard (whole) units (ex. 3 paper clips long) <input type="checkbox"/> Organize, represent, and interpret to answer questions (how many in each category, how many more or less in one category than another) using tables/charts <input type="checkbox"/> Tell and write time to the hour and half hour <input type="checkbox"/> Order and compare objects by length

Notes: