

Boston Collegiate Charter School
5th Grade Math

	Tutoring Hours	Contact
Ms. Davida McGhee (Math Pullout)	TBD	(617) 282-6710 x279 dmcghee@bostoncollegiate.org
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Course Overview

Welcome to Fifth Grade Mathematics! This year we will explore many areas of mathematics. Our goal for this year is to foster and enhance students' mathematical curiosity, skills, and readiness for the rigor of upper school mathematics. For that reason, 5th grade math will focus specifically on a fundamental mastery of the nature of whole numbers, proportional numbers, and the basic operations with both. Students will be able to show the depth of their understanding through their ability to perform computational procedures as well as the ability to solve problems requiring the application of these concepts.

In order to bring all of our students the opportunity to achieve in subsequent grades, students will have 7 periods of math per week. Math II is a math program for all 5th and 6th grade students that supplements the traditional curriculum and provides an opportunity for student to spend more time exploring important concepts in greater depth. Despite having two classes, with two different teachers, the expectations and communication for math are the same and consistent across the board. To that end, Math II will be a separate grading category in the Math grade (see "Grades" for details). During the school year, it is our goal to build students' confidence and skills in the area of mathematics while challenging them in a supportive environment.

Units of Study

The curriculum outline below covers the concepts and skills that are listed in the Massachusetts Curriculum Frameworks. Our 5th grade curriculum is designed primarily to ensure that students develop a comprehensive understanding of place value, basic operations, fractions and decimals concepts, and geometry. We will cover additional topics throughout May and June in order to prepare students for the Stanford-10, MCAS, and 6th grade mathematics.

- Unit 1: Place Value and Number Sense
- Unit 2: Addition and Subtraction
- Unit 3: Multiplication
- Unit 4: Division
- Unit 5: Introduction to Algebra
- Unit 6: Fractions
- Unit 7: Decimals
- Unit 8: Geometry
- Unit 9: Statistics and Probability
- Unit 10: MCAS
- Unit 11: Final Review

Primary Performance Standards

By the end of 5th grade, students will have further developed their ability to:

- Demonstrate their understanding of place value through billions and thousandths (whole numbers and decimals)
- Represent positive numbers in various forms (standard, written, and expanded)
- Estimate and round numbers
- Solve number stories using addition, subtraction, multiplication, and/or division
- Add, subtract, multiply, and divide whole numbers
- Demonstrate an understanding of fractions as a ratio of a whole number, as part of unit wholes, as parts of a collection, and as locations on a number line
- Add, subtract, and multiply fractions
- Simplify, compare, and find equivalent fractions
- Convert improper fractions and mixed numbers
- Order, compare, round decimals
- Add, subtract, multiply, and divide decimals
- Convert fractions, decimals, and percents
- Distinguish among points, lines, line segments, rays, parallel lines, perpendicular lines, and intersecting lines
- Identify geometric shapes and figures
- Name, classify and measure angles
- Identify congruent and similar figures
- Draw lines of symmetry
- Identify transformations
- Calculate the perimeter, area, surface area, and volume of various figures
- Plot points on a coordinate plane
- Identify 3D shapes, their number of edges, vertices, and faces
- Calculate the mean, median, mode, and range of a set of data
- Prepare for the MCAS

Assessments

Students will have regular quizzes and timed multiplication assessments in order to monitor their progress. Furthermore, unit tests will be given on a regular basis. In order for students to properly prepare for a test, students will be given a review sheet as a reference, as well as a "Test Alert" notice.

Grades

Student grades will be determined based on five averages, including Math II:

- 15% Homework
- 15% Classwork
- 20% Minor Assessments (i.e. quizzes)
- 30% Major Assessments (i.e. unit tests)
- 20% Math II

There will also be a cumulative final exam at the end of the year worth 5% of the total grade. Each quarter is weighed at 23.75% and the final exam at 5%.

Tutoring

The Lower School has moved to a targeted tutoring program, designed to provide additional skill support to struggling students. **As a result, tutoring is by invitation only.** More information about this change will be coming soon.

Organization/Materials

Math I	Math II
3 ring binder (2 inches)	1 – 2 pocket folders
5-tab dividers (Notes, Do Now, Classwork, Homework, Assessments)	
1 – 2 pocket folder	
pencils erasers pencil sharpener with catch basin red pen loose-leaf paper	

As a result of not having a traditional textbook, students will be expected to keep all Math I work in a 3-ring binder and all Math II work in their pocket folder. Students must keep all work unless otherwise directed by a teacher. *Students do not need a calculator and should never use one to complete homework.*

Class Policies and Procedures

Absences: If you are absent, it is **your** responsibility to complete all assigned work in the allotted time.

Homework: Homework will be given each night and is expected to be of excellent quality, otherwise students will receive homework club.

Finally, please refer to the BCCS Student and Family Handbook for additional policies regarding attendance, behavior/code of conduct and homework expectations.

We are looking forward to working with you this year.

Sincerely,

Ms. Davida McGhee & Ms. Jessica Viola

Course Description Agreement

Once you and your family have read the above course description, please sign and comment (if necessary) below. Please return this last page tomorrow for your first homework grade.

I have thoroughly read the above material and understand the expectations set forth for Math.

Student Name (printed)

Advisory

Student Signature

Parent/Guardian Signature

Best Phone Number

Best Email Address

Comments: