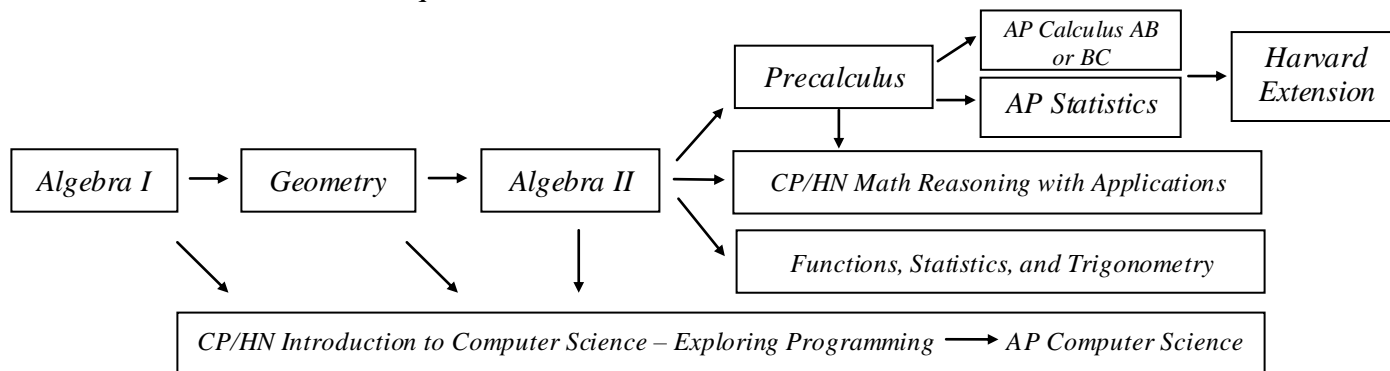


**Cambridge Public Schools**  
**High School Mathematics Course Selections**

From Grade 9 to Grade 12, students are **required** to take at least one math class per year. Students are **required** to successfully complete Algebra I, Geometry, and Algebra II as a graduation requirement. The most common course sequences are shown below:



*NOTE: All students must pass the Grade 10 Mathematics MCAS Exam to graduate with a high school diploma. Students who do not pass this exam will instead graduate with a certificate of completion.*

### Grade 9 Math Course Selections

When moving into Grade 9, students can enroll in either Algebra I or Geometry.

- Algebra I is the standard course following Grade 8 math. Students have a choice between College Prep Algebra I and Honors Algebra I, depending on their readiness and ability.
- Students wanting to take Geometry in Grade 9 will need to pass the CRLS Algebra I Final Exam or its equivalent to be given by the Grade 8 math teachers.
- Students who have passed Algebra I can enroll in the Introduction to Computer Science – Exploring Programming course offered at CRLS.

Course Title	<i>Honors Algebra I</i>	<i>College Prep Algebra I</i>	<i>Honors Geometry</i>
Course Length	One semester (5 ½ months)	Full year	One semester (5 ½ months)
Student Goals	Student plans to take or could succeed in Calculus in Grade 11 or Grade 12.	Student plans to take or could succeed in a Grade 12 math course, including Calculus if desired.	Student plans to take or could succeed in Calculus in Grade 11 or Grade 12.
Student Knowledge Requirements	<p><b>Specific Math Skills:</b>  <b>Mastery</b> of fractions, decimals, and integers  <b>Skilled</b> at solving one-step and two-step equations            Can represent <b>multiple functions</b> using multiple representations (table, equation, graph)  <b>Skilled</b> at solving ratios and proportions  <b>Mastery</b> of exponent properties and roots (square and cube)</p>	<p><b>Specific Math Skills:</b>  <b>Comfort</b> with fractions, decimals, and integers  <b>Comfort</b> with solving one-step and two-step equations            Can represent <b>linear functions</b> using multiple representations (table, equation, graph)  <b>Comfort</b> with solving ratios and proportions  <b>Good</b> understanding of exponent properties and roots (square and cube)</p>	<p><b>Specific Math Skills:</b>  <b>Skilled</b> at solving multi-step equations  <b>Solve and graph</b> absolute value functions            Can represent <b>linear, quadratic and exponential</b> functional relationships using multiple representations  <b>Mastery</b> of operations on polynomials (+, −, ×, ÷)  <b>Mastery</b> of solving linear equations and inequalities in multiple ways  <b>Skilled</b> at solving quadratic equations in multiple ways</p>
Grade 8 Final Grade Range	80% – 100%	< 80%	Student must pass Algebra I Final Exam or its equivalent.

## Course Scheduling at CRLS

Cambridge Rindge and Latin School offers courses using a **Block Schedule**. This means that *some* courses are offered in one semester. These are ½ year classes (either Sept. to Jan. *or* Jan. to June).

### *College Prep (CP) Courses*

**College Preparation** Algebra I and Geometry are each *year long* classes. CP classes after Geometry are *one semester* long.

9 <sup>th</sup> Grade		10 <sup>th</sup> Grade		11 <sup>th</sup> Grade		12 <sup>th</sup> Grade
College Prep Algebra I		College Prep Geometry		CP Algebra II	Any Subject Elective	<i>Required 4<sup>th</sup> year Math Class</i>

### *Honors Courses*

Every **Honors** math class is *one semester* (½ year) long.

9 <sup>th</sup> Grade		10 <sup>th</sup> Grade		11 <sup>th</sup> Grade		12 <sup>th</sup> Grade
Honors Algebra I	Any Subject Elective	Honors Geometry	Any Subject Elective	Honors Algebra II	Any Subject Elective	<i>Required 4<sup>th</sup> year Math Class</i>

Alternatively, students can complete the first four required courses by the end of 10<sup>th</sup> grade, allowing them to enroll in AP Calculus AB or AP Calculus BC, which are *full-year* courses, in 11<sup>th</sup> grade.

9 <sup>th</sup> Grade		10 <sup>th</sup> Grade		11 <sup>th</sup> Grade	12 <sup>th</sup> Grade
Honors Algebra I	Honors Geometry	Honors Algebra II	Honors Precalculus	AP Calculus AB or BC <i>(full-year course)</i>	<i>Required 4<sup>th</sup> year Math Class</i>

*NOTE: Students completing Algebra I in the 8<sup>th</sup> grade can move into Geometry first. Since AP Calculus is a full-year course, students would have an elective in one semester of their 9<sup>th</sup> or 10<sup>th</sup> grade year.*

### *9<sup>th</sup> & 10<sup>th</sup> Grade - Moving from College Prep to Honors (Math Move Up)*

Students in College Prep Algebra I or College Prep Geometry who have demonstrated solid academic skills and mathematical understanding will have the opportunity, with teacher recommendation, to move into the Honors course at the start of the second semester. This will give students exposure to some of the content before starting the faster-paced Honors course in the 2<sup>nd</sup> semester.

#### *Algebra I Move Up*

9 <sup>th</sup> Grade		10 <sup>th</sup> Grade		11 <sup>th</sup> Grade		12 <sup>th</sup> Grade
Algebra I CP	Algebra I Honors	Geometry Honors	Algebra II Honors	Precalculus Honors	Any Subject Elective	<i>Required 4<sup>th</sup> year Math Class</i>

**OR**

#### *Geometry Move Up*

9 <sup>th</sup> Grade		10 <sup>th</sup> Grade		11 <sup>th</sup> Grade		12 <sup>th</sup> Grade
Algebra I College Prep		Geometry CP	Geometry Honors	Algebra II Honors	Any Subject Elective	<i>Required 4<sup>th</sup> year Math Class</i>

*Additional information about the math program at CRLS can be found on the CRLS Math Department web page at:*

[http://crls.cpsd.us/academics/mathematics\\_at\\_c\\_r\\_l\\_s](http://crls.cpsd.us/academics/mathematics_at_c_r_l_s)