

October 1, 2007

Dear Parents:

The purpose of this letter is to acquaint you with the instruments used in math placement from grade eight to grade nine and to provide you with the ranges we use as guidelines. Math placement is not something that happens at the end of the year. Rather, it is an ongoing process with specific milestones throughout the year. The math department also feels it is important to include a general description of a student in each course. These characteristics are:

College Prep: Algebra I

Algebra students demonstrate emerging insights into algebraic thinking but need to deepen their understanding of algebraic concepts and skills. This course takes a traditional approach to algebra at a moderate pace with extensive review. Students in this course may or may not have taken algebra previously and would take any of the geometry classes listed below in their sophomore year.

College Prep III: Algebra 1

This is a year long algebra course for students who have not taken algebra before. Topics are explored in less depth than CP Algebra I due to the slower pace of the class and the additional time for in-class practice and review. Students in this course typically take College Prep II or III Geometry in their sophomore year.

College Prep II: Geometry with Algebra review

Students can follow a model and reach an abstract level of understanding but do not consistently show mathematical insights in problem solving. They learn well from periods of direct instruction in combination with in-class guided practice. Given several models, they are able to select the one which works best for them and master it. This is a fast paced course which teaches paragraph style geometric proof and includes regular review of new material as well as a good deal of algebra review.

College Prep I: Geometry

Students understand and analyze complex situations with guidance. Able to understand and apply general principles of mathematics, they visualize concepts and relationships. They can assimilate and reproduce ideas in variations of problem solving situations already experienced. Given several models, students understand and use several. They recall previous skills and topics. This is a fast paced course which teaches traditional two column proof and expects proficiency with minimal review.

Honors Geometry

Students can understand concepts and relate those concepts to new situations. They have the ability to think abstractly, are creative problem posers and problem solvers, have insights into complex relationships, and see patterns beyond expectations. They execute skills reliably and demonstrate proficiency of previous topics and skills. Students are able to complete tests in the allotted time. The honors course has an accelerated pace with limited review.

We use five formal instruments in determining placement. They are listed in order of importance.

Orleans Hanna Geometry Prognosis Test: weighted twice

Given in January, the Orleans Hanna Geometry Prognosis Test is a 40 question multiple choice test which assesses geometry readiness. Calculators are not allowed.

Test Average: weighted once

The test averages for each term are considered as well as the overall test average. Calculators are allowed on most tests.

Midyear Exam: weighted once

The midyear exam includes material covered in the first half of the year. It is usually given the week prior to February vacation.

American Mathematics Competition (AMC8): weighted once

This 25 question multiple choice test is given in November during a 40 minute class period. Calculators are allowed. The items cover computation, geometry, interpreting graphs and problem solving.

National Mathematics League Contests (NML): weighted one-half

The contests require students to apply algebraic concepts which they have learned. Some questions are fairly direct applications while others require some integration of knowledge. The six question contest is given in January. No calculators are allowed.

The chart below provides the benchmarks used to place students in the ninth grade. Since no placement instrument is perfect, there are some overlaps in the ranges to allow teachers some flexibility for individual differences and special circumstances.

	CPIII Algebra	CP Algebra	CPII Geometry	CPI Geometry	Honors Geometry
Geom Prog (raw)		up to 20	19-24	23 to 30	30 or above
Iowa Prog (raw)	up to 35	32 or above			
Test avg (%) and midyear (currently in guided and independent)		up to 75	70 to 85	80 to 95	92 or above
Test avg (%) and midyear (currently in directed)	up to 82	75 and above			
AMC8 (raw)	up to 7	up to 7	6 to 11	10 to 15	15 or above
NML(raw)		up to 2	2 to 4	3 to 5	5 to 6
CML(%)	up to 25%	20% or above			

We hope that having this information in the fall helps parents and students set appropriate goals. To further insure this, we would like to invite all CMS parents to the Peabody forum on Thursday, October 18, at 7:00 P.M. to answer any questions you may have regarding math placement. If possible, forward your questions to either office so that we may best address the needs of the group.

Respectfully,

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principal