

Making Real Life Connections Inside the Classroom

Mathematical concepts are taught through problems that students could encounter in their daily lives. To build their understanding of a concept, students work through activities to help ground the concept in reality. Basic skills and procedures are practiced as exercises over several weeks, as well as integrated into challenging application problems. In the process of solving problems and exploring concepts, students develop and refine other skills designed to help them focus on the process, not just the answer including: estimating, counting, calculating and measuring, comparing, checking, representing, extending, and making connections through reading. The homework known as “Review & Preview” uses a spiral technique. Problems review not just what was learned in the lesson but also other previous learned topics so concepts remain fresh in the students’ minds limiting the response of “I forget, it was so long ago.” The preview part of the homework gets students ready for what is to come in the next few sections.



A Commitment to Educational Excellence

From the Wissahickon School District Mission Statement

We strive to promote lifelong learning through the delivery of essential learning standards that help our students become:

Competent Thinkers

Effective Collaborators

Effective Communicators

Knowledgeable Individuals

Physically and Emotionally Self-Aware Individuals

Quality Producers

Resource Managers

Responsible Citizens

Technology Proficient Individuals

For More Information:

Parent Guides with extra problems/ answers and explanations can be found at:

<http://www.cpm.org/parents/resources.htm>

Detailed standards information may be found at :

<http://www.cpm.org/parents/reference.htm>

WISSAHICKON HIGH SCHOOL



College Preparatory Math

Background & Philosophy

College Preparatory Math (CPM) is a secondary mathematics program that integrates basic skills and topics with conceptual understanding and problem-solving strategies to achieve a complete and balanced mathematics curriculum. The CPM program encompasses the same mathematics topics as traditional classes, but uses a different instructional approach.

Rather than teaching students with a “one-size-fits-all” model, teachers use a variety of methods to help students develop better understanding of the concepts they are learning. Such methods include lecture, class discussions, structured study teams and math labs.

Where other mathematics programs emphasize only the mechanics of mathematics, CPM materials develop the basics while encouraging students to understand ideas, see relationships between them and apply mathematical principles to complex problems. The CPM program effectively combines a unique emphasis of both basic skills and problem-solving strategies.

Teacher and Student Roles

Teachers provide much needed information, instruction and support for students, but allow them to work through problems and questions in a study team environment.

The CPM program uses a variety of teaching methodologies, including lecture, class discussions, manipulatives and structured study teams. During class, students actively work on guided investigations, much like “math labs,” to develop mathematical concepts and problem-solving skills.

Student work is supervised by a teacher in a problem-solving environment similar to that found in many work places. Teachers direct summary discussions, interact with study teams and give focused lectures based on their observations of student work.



What does a Core Math Classroom Look Like?

Students in math are actively engaged in the learning process. A variety of teaching strategies and methods are used to help keep students focused, including lecture, think-pair-share, cooperative learning, and independent practice. Discussions about mathematics are prevalent.



The CPM Program selected by Wis-sahickon is called Core Connections. This program is designed to meet the Pennsylvania Common Core Standards and is aligned to the Wis-sahickon High School Mathematics Curriculum.