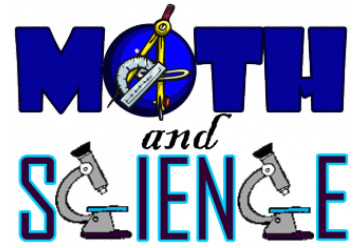


West Orange High School

Institute for Mathematics and Science

IMS 9 & 10 NEWSLETTER



September 2024

Welcome, IMS families, to the 2024-2025 School Year!

The IMS Team of teachers and School Counselors is excited to be working with the 9th and 10th grade students in our Science, Technology, Engineering, and Math program this year.

We are all looking forward to a year filled with additional experiences including Guest Speakers from various STEM professions, Field Trips to locations related to our curriculum and future opportunities, and Math and Science contests.

Students will be receiving IMS contracts that outline the expectations of the program. Communication of IMS related events will be shared via the new IMS Google Classrooms that all students have been invited to.

Please feel free to reach out if you have any questions about the IMS program.

Sincerely,

Jessica Nuzzi

IMS Program Coordinator

Teacher of IMS 10 Precalculus

jnuzzi@westorangeschools.org

IMS School Counselor News

Madelin Fernandez-Perez, School Counselor

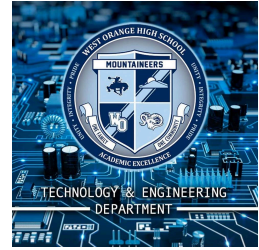


Welcome to the new school year! We are excited to meet with our 9th grade students and begin working collaboratively towards their post-secondary goals. We welcome back our tenth grade students and are excited to continue to explore their passions in their final year of IMS. We enjoy having such a motivated group in the Institute for Math and Science. To enhance student experience with the honors level math and science classes, we will be organizing field trips to explore various careers and college options.

We strongly encourage families to access their child's PowerSchool Parent Portal account regularly for up-to-date information. Report Cards will not be mailed home unless requested through the school counseling office. However, you can view your child's grades at any time via the Parent Portal. It is also important to subscribe to Naviance, which we utilize as a source of communication. Naviance is a Web-based program designed to assist families with college and career planning. Early research and ongoing planning lead to better preparation and more opportunities! Please contact your child's school counselor if you need assistance with the Parent Portal and Naviance. The school counseling department is eager to assist IMS students in achieving their maximum potential!

Technology & Engineering

Mrs. Celi, Coordinator of Technology & Engineering/Teacher of Architecture and Engineering Design

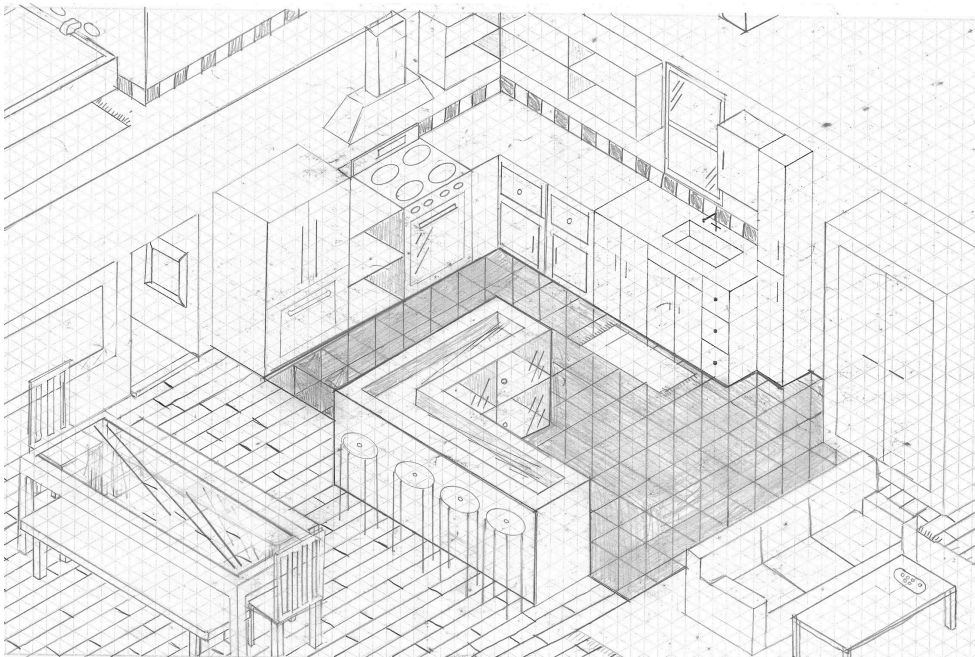


Architectural and Engineering Design 1

Welcome! My name is Mrs. Celi, and I am thrilled about the upcoming school year. I will be teaching Architectural & Engineering Design 1 (AED1). My passion for teaching is immense, and when we infuse fun into our lessons, learning becomes even more engaging.

In AED1, we are currently revisiting fundamental measurement techniques with a ruler and students have learned about all the necessary drafting tools to create drawings. Students will soon advance to using the Architect's scale to make scaled drawings. Each student has received their drafting supplies and has begun working with their new tools. I am confident that this semester will be both productive and enjoyable.

Looking ahead, students will dive into designing a wooden toy, creating textile designs, 3D drawings, and designing objects for 3D printing. Stay tuned for more updates!



Celebrity Kitchen

Honors Biology IMS 9

Tagen Jacobus, Teacher of Biology

Greeting IMS Family, Class of 2028

We kicked this year off strong and I am excited to continue this year with your children. They have just begun the final four years before college and will be sure to have a year of growth. We begin with a few broad topics to create a platform as a reference for the rest of this year. These activities will also begin building classroom culture and comfort.

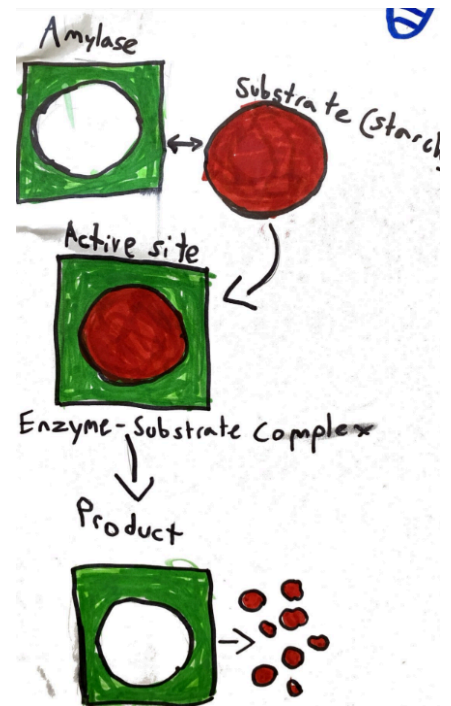
As we move through macromolecules, characteristics of life, kingdoms and graphing, many lifelong skills will be introduced and then reinforced throughout the year. I am here for your children to support their academic growth and interest and I hope they begin to feel comfortable enough to reach out to me along our journey together.

To best utilize our class time, please remind your child to eat breakfast before school starts, begin the day with an encouraging pep talk, and end the day with reflection.

Sincerely,

Tagen Jacobus

tjacobus@westorangeschools.org



Honors Algebra II IMS 9

Katherine Bryant, Teacher of Mathematics

Hello!

Welcome to the 2024 – 2025 school year and the IMS 9 program. I am Mrs. Bryant, your child's IMS Honors Algebra II teacher. We will begin the year by diving into solving Quadratic Functions. The different solving methods that we will be using are graphing, square root property, factoring, completing the square, and the quadratic formula. We will also be working with transformations on Quadratic Functions and analyzing them in vertex form.

Throughout the unit, students will complete a project in which they will analyze the characteristics of parabolas in the real-world.

I am looking forward to working with the IMS students this year.

Sincerely,

Mrs. Katherine Bryant

kbryant@westorangeschools.org

Honors Geometry & Analysis IMS 9/10

Samantha Heller, Teacher of Mathematics

Hello and welcome!

I am so excited for this school year! Let me start by introducing myself. I am a WOHS alum and am so happy to be teaching in my hometown. After WOHS, I attended Rutgers University and earned my Bachelors of Science in Mechanical Engineering. I worked in the industry for a short period of time and then decided to get my Masters in Teaching at Montclair State University. I am now entering my sixth year of teaching and am loving every minute of it!

This class will start with the Foundations of Geometry. In this unit, students will be introduced to points, lines, and angles. More specifically, students will learn about the Segment Addition Postulate, Segment Bisectors, Angle Classifications, Angle Addition, Conditional Statements, Deductive Reasoning, and Segment & Angle Proofs. Students will also be constructing congruent linear segments, segment bisectors, congruent angles, and angle bisectors using a straightedge and a compass. We will be using Google Classroom, DeltaMath, and the online textbook to help us navigate through this material.

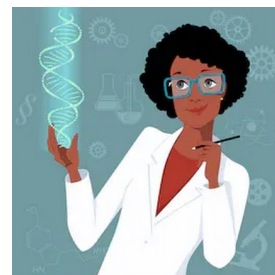
I look forward to meeting you at Back to School Night and can't wait to watch my students master Geometry!

Sincerely,

Ms. Heller

Honors Chemistry IMS 10

Tantanya Hodges , Teacher of Chemistry



Hello IMS Families and Friends,

This year, Chemistry has started with a Bang... The study of the Big Bang 😊. The students will be developing an understanding of Chemistry by learning where it all began. We will be studying the origin of the Universe, the discoveries and the experiments that led to the amazing things around us.

My goal as a teacher is to introduce my students to the prevailing theories and discoveries of well regarded scientists as well as to the experiments and scientists that aren't in the textbooks, but whose work and ideas led to the groundwork for our understanding of the microscopic world.

Throughout the year, the students will be engaged in inquiry-based investigations, data analysis, mathematical problem solving, and developing scientific arguments. On occasion, I will collaborate with our Library Media Specialist to integrate technology and student learning through various activities.

Let the Chemistry Journey begin.

Ms. Hodges

thodges@westorangeschools.org

Honors Precalculus IMS 10

Dr. Jessica Nuzzi, Teacher of Mathematics

Hello and welcome back 10th grade families to the WOHS IMS program!

Our IMS Precalculus students have begun their work together on material that will extend throughout the school year and into Calculus. Throughout Precalculus, we integrate prior knowledge of Geometry and Algebra to both master topics of study and extend them, in order to prepare for the study of Calculus next year.

Our first unit of Triangle Trigonometry directly ties in last year's work on Right Triangles with this year's move into the study of Trigonometric Functions. We will next study triangles on the coordinate plane, which will introduce the Unit Circle.

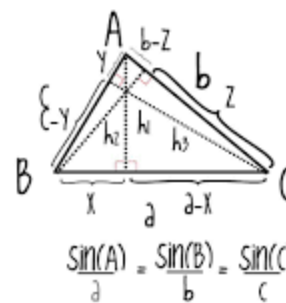
The IMS PreCalculus students have been hard at work during school and at home. They are reconnecting with previous math knowledge and building their skill sets.

I look forward to meeting you at our Back to School Night, please feel free to email me directly with any questions.

Sincerely,

Dr. Jessica Nuzzi

jnuzzi@westorangeschools.org



$$\sin \theta = \frac{\text{OPP}}{\text{HYP}}$$

$$\cos \theta = \frac{\text{ADJ}}{\text{HYP}}$$

$$\begin{aligned} a^2 &= b^2 + c^2 - 2bc \cos(A) \\ b^2 &= a^2 + c^2 - 2ac \cos(B) \\ c^2 &= a^2 + b^2 - 2ab \cos(C) \end{aligned}$$