

Challenger High School
Modeling our World With Math
CEDARS Code 2137 9/7/21
MTH 363/364

Instructor: Chris Nelson **Phone:** (253) 683-6811 **email:** cenelson@bethelsd.org
Grade Level: 11,12 **Credit:** Mathematics or Elective

Time Requirements:

Students will be required to do 5 hours per week of classwork, and do 7.5 hours of homework per week. Students are required to contact the instructor prior to any absence in order to determine how the student will make up any missed assignments.

Course Description:

Modeling Our World with Mathematics (MOWWM) is a five-module mathematics course developed locally by OSPI with input from educators across Washington, and is designed to follow Geometry. It contains career-connected thematic units where students use high school mathematics to analyze everyday life and work. The content and instructional strategies support increased attainment of the common core high school content standards while developing the standards for mathematical practice. There will also be ACT and SBA preparatory lessons throughout the course.

Course Content: Students will demonstrate a basic understanding of the following:

MTH 363

Quarter 1 - .25 credit

1. Getting Started
2. Health and Fitness
3. Civics Topics

Quarter 2 - .25 credit

1. Civics Topics
2. Finances

MTH 364

Quarter 3 - .25 credit

1. Finances
2. Art Topic

Quarter 4 - .25 credit

1. Digital World
2. Art Topic

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This course meets Common Core State Standards defined by the school district and Washington State. This course meets the State and School District graduation requirements.

Common Core State Standards

- Refer to: Common Core State Standards for Mathematics (which can be found online at <http://www.corestandards.org/Math/>) for more detail and to identify specific standards.

CCSS – M Clusters covered in this course:

- N-RN 1-3: The Real Number System
- N-Q 1-3: Quantities.
- A-SSE 1,3: Seeing Structure in Expressions
- A-CED 1-4: Creating Equations
- A-REI 1,3,6,7,10-12: Reasoning with Equations and Inequalities
- F-IF 1,2,4-9: Interpreting Functions
- F-BF 1,3: Building Functions
- F-LE 1-3,5: Linear, Quadratic, and Exponential Models
- S-ID 1-3, 5-8: Interpreting Categorical and Quantitative Data
- S-IC 1-2: Making Inferences and Justifying Conclusions
- S-MD 6,7: Using Probability to Make Decisions
- G-CO 1,3-5: Congruence
- G-MG 1-3: Modeling with Geometry
- G-MD 4: Geometric Measurement and Dimension
- G-SRT 6-8: Similarity, Right Triangles, and Trigonometry
- Math Practices 1 – 8

Materials (may include but are not limited to)

- District approved textbook: Big Ideas Algebra 1 and 2 and Big Ideas Geometry
- Internet Sites, Lab experiences, Computer based learning models, Reading materials, Videos, calculator
- All materials will be provided by the instructor

Assessment (may include but not limited to)

- Oral/Written expression for mastery understanding of course concepts and demonstration of the application of course concepts.
- Performance based evaluations
- Progress reports will be done monthly by the instructor.

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Progress

- Student progress is monitored weekly. Student monthly progress is at the discretion of the certificated teacher based on weekly evaluations and the students' ability to complete the required learning benchmarks for that month.
- If a student fails to make collective progress for all weeks, then monthly progress is unsatisfactory. Student monthly progress is specifically evaluated against progress benchmarks, which are clearly defined in the course for each month.
- In addition to the course schedule, these benchmarks may also come in the form of lesson, unit, assignment and/or assessment completion dates.
- These established progress benchmarks will allow teachers and students to assess the students' educational progress in meeting the course learning standards.
- At a minimum, students must turn in at least one assignment per week to maintain a status of "making monthly progress," but will need to complete all the instructor is asking for each week in order to complete the course on time.

Grading Scale: (Progress reports will be done monthly)

- A (90-100%) Student demonstrates exemplary abilities through scores earned; student showed outstanding mastery of expected skills.
- B (80-89%) Student demonstrates adequate abilities through scores learned on assessments; student shows adequate mastery of expected skills.
- C (70-79%) Student demonstrates average abilities through scores earned; students showed average mastery of expected skills.
- D (60-69%) Student demonstrates minimal mastery of expected skills.
- F (Below 60%) Student has not demonstrated adequate mastery of expected skills.

Relationships to other Content Areas

- Completion of this course will require the student to integrate: mathematical, logical, linguistic, social, historical, societal, technological, and writing skills.

Class Expectations:

- No cell phones for personal use.
- Students will be required to work in small groups.
- Students will be to class on time.
- Students will demonstrate self-discipline, acting in a manner that does not detract from the learning of others.