

Mrs. Mellina Truncale Email: truncame@orange.k12.nj.us STEM Website: www.orange.k12.nj.us/STEM Faculty Page: https://www.orange.k12.nj.us/domain/2776

High Challenge – High Support

Course Description

The Integrated Mathematics I curriculum is designed to promote depth of knowledge and conceptual understanding in 6 critical areas organized into units designed to deepen and extend students' understanding of linear relationships; done in part by contrasting them with exponential phenomena, and in part by applying linear models to data that exhibit a linear trend. Topics studied in the regular Integrated Mathematics I curriculum are taught at an accelerated pace, and are extended and explored in greater depth using real life projects incorporated into each marking cycle.

Instructor

Mrs. Mellina Truncale received her B.A. in Mathematics and Educational Studies from Emory University. She also received her M.Ed from Harvard Graduate School of Education in the Teacher Education Program.

Teacher Availability

Ms. Truncale will be available during Advisory periods during the school day. She will also be available outside of those times by appointment.

Required Materials

- Pencils & Pens
- 1" Binder with loose leaf lined and graphed paper
- 1 set of Binder dividers
- 1 Folder
- Dry Erase Markers (fine tip preferred)



Mrs. Mellina Truncale Email: truncame@orange.k12.nj.us STEM Website: www.orange.k12.nj.us/STEM Faculty Page: https://www.orange.k12.nj.us/domain/2776

Course Objectives

Students who successfully complete the Integrated Math 1 Honors curriculum will be competent in these mathematical practices and exercise these habits of mind:

Mathematical Practices

- 1. Make sense of problems and persevere in solving them.
- 2. Reason abstractly and quantitatively
- 3. Construct viable arguments and critique the reasoning of others.
- 4. Model with mathematics.
- 5. Use appropriate tools strategically.
- 6. Attend to precision.
- 7. Look for and make use of structure.
- 8. Look for and express regularity in repeated reasoning.

Habits of Mind

- 1. Creativity
- 2. Optimism
- 3. Persistence
- 4. Systems thinking
- 5. Conscientiousness
- 6. Collaboration



Mrs. Mellina Truncale Email: <u>truncame@orange.k12.nj.us</u> STEM Website: <u>www.orange.k12.nj.us/STEM</u> Faculty Page: <u>https://www.orange.k12.nj.us/domain/2776</u>

Skills and Proficiencies

Critical Area 1: Students work with expressions and creating equations; using quantities to model and analyze situations, to interpret expressions, and by creating equations to describe situations.

Critical Area 2: Students model relationships between quantities; using function notation and develop the concepts of domain and range; exploring examples of functions, including sequences; interpreting functions given graphically, numerically, symbolically, and verbally, and translating between representations, and understand the limitations of various representations. They compare and contrast linear and exponential functions, distinguishing between additive and multiplicative change. They interpret arithmetic sequences as linear functions and geometric sequences as exponential functions.

Critical Area 3: Students analyze and explain the process of solving an equation and to justify the process used in solving a system of equations.

Critical Area 4: Students use more formal means of assessing how a model fits data. Students use regression techniques to describe approximately linear relationships between quantities and graphical representations and knowledge of the context to make judgments about the appropriateness of linear models.

Critical Area 5: Students establish triangle congruence criteria, based on analyses of rigid motions and formal constructions. They solve problems about triangles, quadrilaterals, and other polygons. They apply reasoning to complete geometric constructions and explain why they work.

Critical Area 6: Students use a rectangular coordinate system to verify geometric relationships, including properties of special triangles and quadrilaterals and slopes of parallel and perpendicular lines.

The Mathematical Practice Standards apply throughout each unit together with the content standards and prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.



Mrs. Mellina Truncale Email: <u>truncame@orange.k12.nj.us</u> STEM Website: <u>www.orange.k12.nj.us/STEM</u> Faculty Page: <u>https://www.orange.k12.nj.us/domain/2776</u>

Technology

- Students will be expected to charge and use their Chromebook daily.
- Google Classroom Links to all class materials will be posted daily.
 If students are ever absent from class, they should review all course materials from the day they missed and request to meet with the instructor if they have any questions.
- **Genesis** Grades will be available to students and parents through the Genesis portal. Students are responsible to check grades and be aware of their work regularly.

Missing and incomplete assignments can be viewed on Genesis. If absent, each student will have two days to make up a missing assignment. After that, a 5-point penalty will be taken off any assignment for each day it is late. If a student is not absent, but failed to complete an assignment, they may request an extension by speaking with the instructor. A 5-point penalty may be taken off the assignment for every day it is not turned in. For example, a homework or classwork assignment that is late for a period of 5 school days, without being excused, is only eligible to receive a maximum score of 75. Additionally, your parents will be contacted when you miss an assignment and administration will be notified. Excessive missing assignments will result in a disciplinary action.



Mrs. Mellina Truncale Email: truncame@orange.k12.nj.us STEM Website: www.orange.k12.nj.us/STEM Faculty Page: https://www.orange.k12.nj.us/domain/2776

Assessments

1. Homework (10%)

Students should expect homework **every class day**. Late homework assignments will incur a 5% per school day deduction for five days and a 0 on the 6th school day; yielding a maximum score of 75% for late work. If students are absent, they will have two days to make up a missing assignment. After that, the 5% penalty will be taken off for each day. If a student is not absent, they may request an extension by speaking with the instructor.

All assignments are given in a timely fashion, so it is expected to be completed in a timely manner. Homework will be collected and graded on a 10-point scale based on completeness and accuracy.

2. Classwork (20%)

Assignment handouts and Google classroom questions are some examples of graded classwork. Students are expected to finish and submit classwork within the class period. If a student fails to complete the classwork at the end of the period, they may submit the assignment **online by 5 PM** via Google Classroom.

3. Quizzes (20%)

Students should expect a quiz once every two weeks, unless there is another schedule assessment. Students who miss these assessments must make them up the following day.

4. Summative Evaluation (25%)

Tests are essential for demonstrating math skills and practices. Expect three to four tests every marking period. Students who miss a test due to an absence must have a note from a parent/guardian. Make-up tests must be scheduled within a week of the test date.

5. Authentic Assessments (25%)

Projects and presentations are to be expected. Authentic assessments are graded using separate rubrics that will be reviewed at the beginning of every assessment. These rubrics will be based on content knowledge, practice of 21st century skills, embodiment of habits of mind and/or application of mathematical practices. Expect four authentic assessments per marking period.



Mrs. Mellina Truncale Email: <u>truncame@orange.k12.nj.us</u> STEM Website: <u>www.orange.k12.nj.us/STEM</u> Faculty Page: <u>https://www.orange.k12.nj.us/domain/2776</u>

We, the undersigned student and parent/guardian, have reviewed the expectations of the class/course outlined in the syllabus and accept the terms and expectations as laid out.

I, as the student, further understand that my parent may be contacted if I am found to be in default of my expectations, solely for the purpose of correcting the problem before my grades are put in jeopardy.

(printed name)

(student signature)

(Parent signature)

(e-mail)

(phone)

(date)

Do you have internet access at home?

- o Yes
- **No**

Any other information I should know: