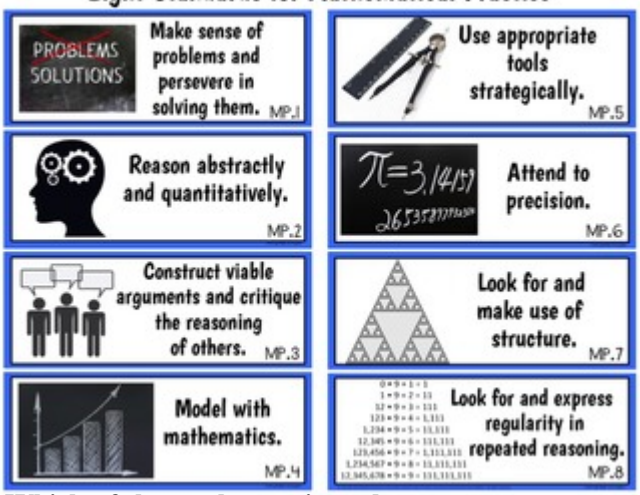
DAVID DAI (HE/HIM/HIS)

WELCOME!

Welcome back! I'm excited to have you in class again this year! My goal is to prepare you to be a successful mathematician. I'm looking forward to guiding you in your exploration and learning of mathematics this school year!
Be ready to do, think, and talk about math every day this year.
Please feel free to reach out to me any time.

Using recommendations from the National Council of Teachers of Mathematics (NCTM, 2014), we will focus on the following skills during the school year.

Eight Standards for Mathematical Practice



Which of the math practices above are you most comfortable with? Which practice do you want to improve?

Contact Information

Schoology Message (preferred)	
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School Website	**bartonexplorers.com**
School Phone	**251-221-1040**

Here at Barton Academy for Advanced World Studies, we support our students' learning experiences with project-based learning opportunities (illustrated).

What are you most excited about with project-based learning?

Policies and Procedures

All Mobile County Public School System and Barton Academy for Advanced World Studies attendance and behavior policies will be followed. Refer to student handbook with any questions or concerns. Students are expected to adhere to all established class norms and routines.

A mathematician you may not know about

Euclid of Alexandria (Εὐκλείδης, around 300 BCE) was a Greek mathematician and is often called the *father of geometry*. His book *The Elements* first introduced Euclidean geometry, defines its five axioms, and contains many important proofs in geometry and number theory – including that there are infinitely many prime numbers. It is one of the most influential books ever published, and was used as textbook in mathematics until the 19th century.

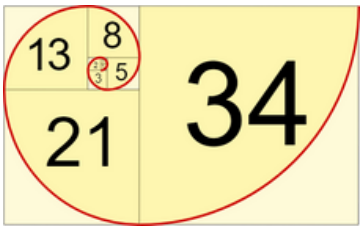
Euclid taught mathematics in Alexandria, but not much else is known about his life.

Want to learn more about other mathematicians? Checkout https://mathigon.org/timeline

SUPPLIES

- Chromebook (charged)
- Binder (with graph paper and notebook paper)
- Writing Utensils (Pencils, Pens, Highlighters, Colored Pencils, Expo Markers)

One of my favorite math patterns is the Fibonacci Sequence: 0, 1, 1, 2, 3, 5, 8, 13, 21, 34, . . . It can also be represented as a spiral (pictured). Can you figure out the pattern?



What's your favorite pattern of numbers? Can you illustrate it?

According to Linkedin, the top five skills that employers look for are **leadership, communication, problem-solving, work ethic, and teamwork.** We will develop each of these through our class structure:

- Most days we will be working in small groups on whiteboards around the room. After we debrief the task(s) as a class, time will be given for notes and "check your understanding" (CYU) questions.
- I will often ask students to explain their thinking or reasoning (verbally or written) to enhance their communications skills and to develop a deep conceptual understanding of the mathematics.
- In order to promote problem-solving skills and teamwork, I may not directly answer every student question. However, this does not mean students won't be supported. For instance, I will often provide a question or suggestion to help a group move forward or provide an extension for students that are ready for more.

Assignments, Assessments, Grading

- The focus of this class is how much you learn. For this reason, I will not be grading much of your daily work/practice. This will allow you to try things and make mistakes without fear that your grade will go down and provides time for you to really learn the material before an assessment.
- Types of assessments include observations of your work during class (written and verbal), conversations, projects, a portfolio, performance tasks, and quizzes/tests.
- Scoring rubrics will be used to score assessments and given to students prior to assessments. These will also be available on Schoology.
- If a student wants the opportunity to improve their grade on an assessment, the student must 1) meet with me to discuss their assessment 2) complete check your understanding assignment(s) to deepen and improve understanding 3) make corrections on their assessment 4) retake the assessment.
  - The student will earn the higher grade scored on between the assessments
  - **The student must complete this by my established deadline.** Failure to do so will forfeit the student's opportunity to retake the assessment.
- If a student is **absent and misses** an opportunity to complete an assessment, the student will be responsible for attending a tutoring session and schedule a time to complete the missed assessment.
- Students are **expected** to login to Schoology to **view and complete tasks/assignments for all days they are absent from class.**

Course Description (from Alabama Math Course of Study)

In Geometry with Data Analysis, students incorporate knowledge and skills from several mathematics content areas, leading to a deeper understanding of fundamental relationships within the discipline and building a solid foundation for further study. In the content area of Geometry and Measurement, students build on and deepen prior understanding of transformations, congruence, similarity, and coordinate geometry concepts. Informal explorations of transformations provide a foundation for more formal considerations of congruence and similarity, including development of criteria for triangle congruence and similarity. An emphasis on reasoning and proof throughout the content area promotes exploration, conjecture testing, and informal and formal justification. Students extend their middle school work with conjecturing and creating informal arguments to more formal proofs in this course. In the content area of Algebra and Functions, students perform algebraic calculations with specific application to geometry that build on foundations of algebra from Grades 7 and 8. In the Data Analysis, Statistics, and Probability content area, students build from earlier experiences in analyzing data and creating linear models to focus on univariate quantitative data on the real number line (shape, center, and variability) and bivariate quantitative data on a coordinate plane (creating linear models).

Stay sharp with these daily math puzzles!

Mathler

Beast Academy "All Ten"

I reserve the right to make any changes or decisions in the best interest of the students that are not explicitly written on this syllabus.

Please complete this Google Form to acknowledge confirmation and understanding of the syllabus.