

MAT0400_202338_Staging_EMBR_TEM

MAT-400

2023 05/01/2023 to 04/30/2024 Modified 03/22/2023

Course Description

This math course emphasizes problem-solving skills by teaching students how to add, subtract, multiply, divide, average, and write the value of multi-digit numbers. Students will learn to apply mathematical concepts to everyday life using decimals, fractions, estimation, probability, measurement (US and metric), graphs, word problems involving money, and basic geometry. The course provides students exceptional opportunities to make real biblical worldview connections to math through engaging and exciting lessons, materials, and activities. The math course utilizes a biblical theme in each math module that helps the students review their prior knowledge and build a solid foundation for continued future knowledge.

Rationale

Working with numbers is an important part of life. Students will learn how to manipulate numbers to help in various areas of life, from buying an item to measuring an object.

Course Learning Outcomes

- A. The student will describe, understand, and interpret measurement.
- B. The student will collect, interpret, and display data to create and analyze graphs.
- C. The student will solve algebraic equations and expressions; explore and solve number patterns.
- D. The student will add, subtract, simplify, compare, and order fractions with like denominators.
- E. The student will read, write, identify, compare, and round decimals to the thousandths.
- F. The student will measure the perimeter and area of a shape.
- G. The student will identify polygons, quadrilaterals, various lines, and angles.
- H. The student will add, subtract, multiply, and divide multi-digit whole numbers.
- I. The student will identify the place value of each digit in a whole number through the millions place.

Biblical Integration Outcomes

- A. The student will realize the importance of knowing how to work with numbers. God used numbers for many things in Scripture.

Course Resources

See Ember's [Systems Requirements](#) for computer specifications necessary to operate this curriculum.

- Note: Embedded YouTube videos may be utilized to supplement Ember's YouTube videos are the property of the respective content creator, licensed to YouTube for distribution and user access. As a non-profit educational institution, Ember is able to use YouTube video content under the YouTube Terms of Service. For additional information on copyright, please contact the [Jerry Falwell Library](#)

* Course Policies

Types of Assessments

To simplify and clearly identify which policies apply to which assessment, each assessment has been categorized into one of four categories: Lesson, Assignment, Quiz, or Test. Each applicable item on the course Modules page has been designated with an identifier chosen from among these categories. Thus, a Quiz on the American Revolution may be designated by the title, "1.2.W Quiz: The American Revolution."

- **Lesson:** *Any item on the Modules page designated as a "Lesson"*

These include instructional content and sometimes an assessment of that content. Typically, a Lesson will be the day-to-day work that a student completes.

- **Assignment:** *Any item on the Modules page designated as an "Assignment"*

Typical examples of Assignments include, but are not limited to, papers, book reports, projects, labs, and speeches. Assignments are usually something that the student should do his or her best work on the first time.

- **Quiz:** *Any item on the Modules page designated as a "Quiz"*

This usually takes the form of a traditional assessment where the student will answer questions to demonstrate knowledge of the subject. Quizzes cover a smaller amount of material than Tests.

- **Test:** *Any item on the Modules page designated as a "Test"*

This usually takes the form of a traditional assessment where the student will answer questions to demonstrate knowledge of the subject. Tests cover a larger amount of material than Quizzes.

Materials Selection Policy

Ember curates educational materials that are consistent with the school's philosophy; however, the fallen human condition depicted in literature (as in Scripture itself) is not always pleasant. Valuable works sometimes have objectionable or profane elements. Good books provide four (4) recognized values.

- They build godly attitudes and character traits.
- They deepen our social and cultural awareness.
- They strengthen our use of written language.
- They provide a lifelong source of enjoyment and relaxation.

In order to instill these values in students and fulfill the stated objectives of the school, all Ember students are expected to read and study good books on a regular basis. Recognizing that materials designed for one level may not be appropriate for another, three (3) levels of criteria are applied:

- Elementary materials must contain no objectionable material,
- Objectionable elements in sixth through eighth-grade materials must be limited and must serve a specific educational purpose, and
- Objectionable content may be included in high school materials but must be outweighed by positive literary, curricular, and/or Christian values.

The curriculum department has approved required educational materials for students.

Resubmission Policy

Students are expected to submit their best work on the first submission for every Lesson, Assignment, Quiz, and Test. However, resubmissions may be permitted in the following circumstances:

- **Lesson:** Students are automatically permitted two attempts on a lesson. Students may freely resubmit for their first two attempts without the need for teacher approval.

If a student feels that he or she deserves a resubmission on a Lesson, Assignment, Quiz, or Test due to a technical issue such as a computer malfunction, the student should message his or her teacher to make the request. With Ember, the teacher may be a physical school teacher or the student's parent/guardian. The teacher can give another attempt from his or her Canvas account. For more information on how to do this, please review the Ember orientation course.

Schedule

Module 1: Place Value & Number Concepts

- Week 1: Place Value
- Week 2: Comparing, Ordering, and Rounding Whole Numbers
- Week 3: Decimal Concepts
- Week 4: Ordering and Rounding Decimals

Module 2: Addition & Subtraction with Whole Numbers & Decimals

- Week 5: Introduction to Addition and Subtraction
- Week 6: Word Problems
- Week 7: Adding and Subtracting Decimals
- Week 8: Time
- Week 9: Quarter One Review

Module 3: Multiplication & Division

- Week 10: Multiplication
- Week 11: Multi-Digit Multiplication
- Week 12: Division
- Week 13: Long Division

Module 4: Estimating Products & Quotients, Word Problems, & Patterns

- Week 14: Estimating Products and Quotients
- Week 15: Word Problems
- Week 16: Patterns
- Week 17: Pattern Rules
- Week 18: Quarter Two Review

Module 5: Fractions

- Week 19: Introduction to Fractions
- Week 20: Adding and Subtracting Fractions with Common Denominators
- Week 21: Fractions with Uncommon Denominators
- Week 22: Adding and Subtracting Fractions with Uncommon Denominators

Module 6: Mixed Numbers & Improper Fractions

- Week 23: Mixed Numbers and Improper Fractions
- Week 24: Subtracting Mixed Numbers
- Week 25: Adding and Subtracting Mixed Numbers
- Week 26: Mixed Number Word Problems
- Week 27: Quarter Three Review

Module 7: Graphing

- Week 28: Bar and Line Graphs
- Week 29: Selecting a Graph

Module 8: Geometry

- Week 30: Geometry
- Week 31: Solid Figures and Quadrilaterals
- Week 32: Measurement
- Week 33: Area and Perimeter

Module 9: Probability

- Week 34: Equations and Probability
- Week 35: Probability Continued
- Week 36: Quarter Four Review