

1st Grade Math

MAT0100

Course Description

The first-grade standards place emphasis on counting, comparing, and ordering sets of up to 110 objects; recognizing and describing simple repeating and growing patterns; and tracing, describing, and sorting plane figures. Students' understanding of number is expanded through recognizing and describing part-whole relationships for numbers up to 10, solving story and picture problems using addition and subtraction within 20; using nonstandard units to measure; and organizing and interpreting data. Fractional concepts will be expanded through sharing scenarios involving halves and fourths. The acquisition of specialized mathematical vocabulary and language is crucial to a student's understanding and appreciation of the subject and fosters confidence in mathematics communication and problem solving. Problem solving is integrated throughout the content strands. The development of problem-solving skills is a major goal of the mathematics program at every grade level. The development of skills and problem-solving strategies must be integrated early and continuously into each student's mathematics education.

Rationale

First grade is a year full of exploring numbers and problems in many different ways. It is important for the student to get fully involved in the learning. Math cannot be completely learned solely on a computer. There must be some hands-on activities that take learning to a higher level of thinking. Each unit of study concludes with a performance task that the student will use to demonstrate comprehension of each math standard.

Prerequisite

None

Measurable Learning Outcomes

- A. The student will orally count forward to 110 and backwards 1 and 30 by ones.
- B. The student will orally count forward by ones, twos, fives, and tens to determine the total number of objects to 110.
- C. The student will write the numerals 0 to 110 in sequence and out-of-sequence.
- D. The student, given up to 110 objects, will group a collection into tens and ones and write the corresponding numeral.

- E. The student will compare two numbers between 0 and 110 represented pictorially or with concrete objects, using the words greater than, less than or equal to.
- F. The student will order three or fewer sets from least to greatest and greatest to least.
- G. The student, given an ordered set of ten objects and/or pictures, will indicate the ordinal position of each object, first through tenth.
- H. The student will represent and solve practical problems involving equal sharing with two or four sharers.
- I. The student will represent and name fractions for halves and fourths, using models.
- J. The student, given a familiar problem situation involving magnitude, will select a reasonable order of magnitude from three given quantities: a one-digit numeral, a two-digit numeral, and a three-digit numeral (e.g., 5, 50, 500); and explain the reasonableness of the choice.
- K. The student will create and solve single-step story and picture problems using addition and subtraction within 20.
- L. The student will recognize and describe with fluency part-whole relationships for numbers up to 10; and demonstrate fluency with addition and subtraction within 10.
- M. The student will determine the value of a collection of like coins (pennies, nickels, or dimes) whose total value is 100 cents or less.
- N. The student will investigate the passage of time and tell time to the hour and half-hour, using analog and digital clocks; and read and interpret a calendar.
- O. The student will use nonstandard units to measure and compare length, weight, and volume.
- P. The student will identify, trace, describe, and sort plane figures (triangles, squares, rectangles, and circles) according to number of sides, vertices, and angles; and identify and describe representations of circles, squares, rectangles, and triangles in different environments, regardless of orientation, and explain reasoning.
- Q. The student will collect, organize, and represent various forms of data using tables, picture graphs, and object graphs; and read and interpret data displayed in tables, picture graphs, and object graphs, using the vocabulary more, less, fewer, greater than, less than, and equal to.
- R. The student will sort and classify concrete objects according to one or two attributes.
- S. The student will identify, describe, extend, create, and transfer growing and repeating patterns.
- T. The student will demonstrate an understanding of equality through the use of the equal symbol.

Course Materials

See LUOA's [Systems Requirements](#) for computer specifications necessary to operate LUOA curriculum. Also view [Digital Literacy Requirements](#) for LUOA's expectation of users' digital literacy.

This course contains additional physical materials. See the materials page toward the end of this syllabus for a listing of course materials.

This course makes use of third-party digital resources to enhance the learning experience. These resources have been curated by LUOA staff and faculty and can be safely accessed by students to complete coursework. Please ensure that internet browser settings, pop-up blockers, and other filtering tools allow for these resources to be accessed.

The following resource(s) are used throughout this course:

RightNow Media

Note: Embedded YouTube videos may be utilized to supplement LUOA curriculum. YouTube videos are the property of the respective content creator, licensed to YouTube for distribution and user access. As a non-profit education institution, LUOA is able to use YouTube video content under the YouTube Terms of Service and the provisions of the TEACH Act of 2001. For additional information on copyright, please contact the [Jerry Falwell Library](#).

Course Grading Policies

The students' grades will be determined according to the following grading scale and assignment weights. The final letter grade for the course is determined by a 10-point scale. Assignments are weighted according to a tier system, which can be referenced on the Grades Page in Canvas. Each tier is weighted according to the table below. Items that do not affect the student's grade are found in Tier 0.

Grading Scale		Assignment Weights	
A	90-100%	Tier 0	0%
B	80-89%	Tier 1	25%
C	70-79%	Tier 2	35%
D	60-69%	Tier 3	40%
F	0-59%		

Course Policies

Students are accountable for *all* information in the Student Handbook. Below are a few policies that have been highlighted from the Student Handbook.

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, "1.2.3 Quiz: The American Revolution." These identifiers were placed on the Modules page to help students understand which Honor Code and Resubmission policies apply to that assessment (see the Honor Code and Resubmission policies on the pages to follow for further details).

- **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 their 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.

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. The student may freely resubmit for their first two attempts without the need for teacher approval.
- **Assignment:** Students are intended to do their best work the first time on all Assignments. However, any resubmissions must be completed before the student moves more than one module ahead of that Assignment. For example, a student may resubmit an Assignment from Module 3 while in Module 4, but not an Assignment from Modules 1 or 2. High School students may not resubmit an Assignment without expressed written permission from the teacher in a comment.
- **Quiz:** Students may NOT resubmit for an increased grade.
- **Test:** Students may NOT resubmit for an increased grade.

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 computer malfunctioning, the student should message his or her teacher to make the request, and that request will need to be approved by a Department Chair.

Consequences for Violations to the Honor Code

Every time a student violates the Honor Code, the teacher will submit an Honor Code Incident Report. The Student Support Coordinator will review the incident and allocate the appropriate consequences. Consequences, which are determined by the number of student offences, are outlined below:

- **Warning:** This ONLY applies to high school Lessons and elementary/middle school Assignments and Lessons. These will be taken as a teaching moment for the student.
 - **Lessons:** A zero will be assigned for the question only.

- **Elementary/Middle School Assignment:** The student must redo their work. However, they may retain their original grade.
- **1st Offense:**
 - **Lesson, Quiz, or Test:** The student will receive a zero on the entire assessment.
 - **Assignment:** The student will either:
 - Receive a 0% on the original assignment
 - Complete the Plagiarism Workshop
 - Retry the assignment for a max grade of 80%
- **2nd Offense:** The student will receive a zero and be placed on Academic Probation.
- **3rd Offense:** The student will receive a zero and the Faculty Chair will determine the consequences that should follow, possibly including withdrawal from the course or expulsion from the academy.

Materials List

1st Grade Math

Module 1

Collection of small items to count about 100
Paper bags
Watch or timer
Notebook and white paper
Pencils and erasers
Markers and Crayons
Small dried beans
Popsicle sticks
glue
dice
online and printer access
scissors
deck of cards
digital camera
newspapers to cut

Module 2

collection of small items to count about 100
paper bags
watch or timer
notebook paper and white paper
pencils and erasers
markers and crayons
small dried beans
Popsicle sticks
glue
dice
online and printer access
scissors
deck of cards

Module 3

collection of small items to count about 100
paper bags
watch or timer
notebook paper and white paper

pencils and erasers
markers and crayons
small dried beans
Popsicle sticks
glue
dice
online and printer access
scissors
deck of cards
construction paper
magazines to cut out pictures
digital camera
poster paper
box of toothpicks
mini marshmallow, grapes, or raisins to
complete 3D shape project

Module 4

collection of small items to count about 100
paper bags
watch or timer
notebook paper and white paper
pencils and erasers
markers and crayons
small dried beans
Popsicle sticks
glue
dice
online and printer access
scissors
deck of cards
jar
spoon
bag of rice or beans
many types of small items to count
small Ziploc bags

Module 5

collection of small items to count about 100
paper bags
watch or timer
notebook paper and white paper
pencils and erasers
markers and crayons
glue
dice
online and printer access
scissors
video recorder
deck of cards

Module 6

paper bags
watch or timer
notebook paper and white paper
pencils and erasers
markers and crayons
glue
dice
online and printer access
scissors
video recorder
deck of cards
dominoes
10 sided dice
0-10 spinner
balance scale

Module 7

paper bags
watch or timer
notebook paper and white paper
pencils and erasers
markers and crayons
glue
dice
online and printer access
scissors
video recorder
deck of cards

Module 8

paper bags

watch or timer
notebook paper and white paper
pencils and erasers
markers and crayons
glue
dice
online and printer access
scissors
video recorder
deck of cards
play money - bills and coins

Module 9

paper bags
watch or timer
notebook paper and white paper
pencils and erasers
markers and crayons
glue
dice
online and printer access
scissors
video recorder
deck of cards

Module 10

notebook paper and white paper
pencils and erasers
markers and crayons
glue
online and printer access
scissors
video recorder
paperclips
measuring tape and yard stick
ruler
weight scale
balance scale
hanger scale
measuring cups

Scope and Sequence

1st Grade Math

Module 1: Number Sense Development

Week 1: Counting by 5's
Week 2: Counting by 2's
Week 3: Counting by 10's
Week 4: Adding 1 more

Module 2: Place Value

Week 5: Count from 0 to 100
Week 6: Expanded Form & Group Collection
Week 7: Data Collection
Week 8: Interpreting Data

Module 3: Geometry

Week 9: 2D Shapes
Week 10: 2D Shapes & Graphing
Week 11: Fractions $\frac{1}{2}$, $\frac{1}{3}$, & $\frac{1}{4}$
Week 12: Solid Shapes (3D)

Module 4: Estimation & Patterns

Week 13: Estimation
Week 14: More Estimation
Week 15: Patterns
Week 16: More Patterns

Module 5: Addition & Subtraction

Week 17: Adding & Subtracting Strategies
Week 18: Adding & Subtracting Strategies
Week 19: Adding & Subtracting Strategies
Week 20: Adding & Subtracting Strategies

Module 6: Fact Families & Equal Sign

Week 21: Fact Families
Week 22: Equal Sign
Week 23: More Equal Sign

Module 7: Word Problems & 2 Digit Math

Week 24: Word Problems
Week 25: Word Problems, Graphing, & 2 Digit Math
Week 26: 2 Digit Math

Module 8: Money

Week 27: Money
Week 28: Money-Coins
Week 29: More Money
Week 30: Money Bills

Module 9: Time

Week 31: Telling & Elapsed Time
Week 32: Measuring Big Chunks of Time
Week 33: Calendar

Module 10: Measurement

Week 34: Non-Standard Measurement
Week 35: Length & Weight
Week 36: Capacity & Word Problems