

Course Syllabus

Mathematics, Grade 1

Grade 1 Math, Final
Guardian Angels School

The Foundations of Learning (1999) curriculum offers kindergarten through grade 12 objectives for the Knowledge and Comprehension levels of Bloom's Taxonomy. EdVISION developed this curriculum based on extensive research of standardized and state tests. Additional objectives were added to enhance the content areas.

The mathematics component of the Foundations of Learning curriculum focuses on basic skills. Objectives primarily involve the identification, recognition, comprehension, or understanding of various math topics.

The Principles and Standards for School Mathematics describe the mathematical understanding, knowledge, and skills that students should acquire from prekindergarten through grade 12.

The ITBS Form A for mathematics measures the skills and achievement of students.

In this area students concentrate on making mathematical connections and using principles of mathematics to communicate, reason, and solve problems. Students engage in projects which require them to apply number systems, operations, and forms in real-world contexts.

The MEAP assesses student progress in Mathematics.

The Michigan Curriculum Framework describes Mathematics as the science of patterns and relationships and as the language and logic of our technological world. The Michigan Curriculum Framework states that Mathematical power is the ability to explore, to conjecture, to reason logically, and to use a variety of mathematical methods effectively to solve problems; whereas the ultimate goal of mathematics education is for all students to develop mathematical power to participate fully as a citizen and worker in our contemporary world.

The Michigan Curriculum Framework Mathematics Vision Statement states that a mathematically powerful individual should be able to:

- * reason mathematically
- * communicate mathematically
- * problem solve using mathematics

* make connections within mathematics and between mathematics and other fields.

The Foundations of Learning curriculum provides objectives for first grade students.

Data Interpretation

The Data Interpretation Unit includes Competencies/Objectives which focus on the study and use of graphical forms. Students collect and classify data, organize and display data, use logical reasoning, and problem solving.

- The learner will be able to read bar graphs.
- The learner will be able to identify amounts represented on a bar graph.
- The learner will be able to identify data on a simple pictograph.
- The learner will be able to identify amounts from a table.

Fractions

The Fractions Unit includes Competencies/Objectives which focus on number sense and operations with fractions. Students compare and order fractions, study fraction parts, estimate with fractions, reason using fractions, and problem solve using fractions.

- The learner will be able to identify an object which is divided into equal parts.
- The learner will be able to explain that a half is less than a whole and/or that a whole is more than a half.

Geometry

The Geometry Unit includes Competencies/Objectives which focus on exploring geometric concepts from multiple perspectives. Students study properties and construction of figures, proofs and theorems, history of geometry, transformations, logic, and problem solving.

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- The learner will be able to identify a set of real world figures that are all similar.

Measurement

The Measurement Unit includes Competencies/Objectives which focus on measurement concepts, applications, and analysis. Students study length, area, circumference, perimeter, volume, weight, formulas, distance, calendar, money, tools, accuracy, units, constructions, patterns, and problem solving.

- The learner will be able to identify days of the week and months of the year.
- The learner will be able to tell time to the nearest half hour.
- The learner will be able to identify correct money notation up to \$9.99.
- The learner will be able to identify the correct instruments used to measure weight.
- The learner will be able to compare the weights of real objects using nonstandard measures.
- The learner will be able to determine the area of a square by counting the square units within the square.

Number Theory

The Number Theory Unit includes Competencies/Objectives which focus on manipulating number forms and classifications. Students make connections between number forms and their real world applications.

- The learner will be able to determine the place value of a number in the ones place.

Numeration

The Numeration Unit includes Competencies/Objectives which focus on exploring ordinality, identifying and extending number patterns, comparing numbers, and demonstrating number relationships.

- The learner will be able to determine which of two numbers is greater than or less than the other.
- The learner will be able to count the items in a group.
- The learner will be able to begin counting from a specific starting point.
- The learner will be able to count forward or backward with any number from 1 to 10.
- The learner will be able to identify a pattern of symbols or concrete objects.
- The learner will be able to estimate amount for groups less than 100.
- The learner will be able to estimate size using phrases like, about as long as, almost as long as, wider than, etc.

Whole Numbers

The Whole Numbers Unit includes Competencies/Objectives which focus on whole number concepts. Students perform operations with whole numbers, use manipulatives to demonstrate whole number concepts, and solve problems with whole numbers in real world contexts.

- The learner will be able to add 1 - 2 digit whole numbers without regrouping.
- The learner will be able to add whole numbers using pictures.