

Rationale

The need to understand and be able to use mathematics in everyday life and in the workplace has never been greater and will continue to increase. The underpinnings of everyday life are increasingly mathematical and technological. Just as the level of mathematics needed for intelligent citizenship has increased, so too has the level of mathematical thinking and problem solving needed in the workplace. Those who understand and can do mathematics will have significantly enhanced the opportunities and options for shaping their futures. Mathematical competence opens doors to productive futures.

Course Description

Mathematics is designed to provide a classroom environment where the beginning learner develops number sense in everyday life by applying mathematical processes, reasoning, and problem-solving strategies. The topics covered are counting in multiples, place value, developing fluency with addition and subtraction, measuring, and describing and comparing shapes. The student will move through concrete models to pictorial representation, to abstract representation of mathematical concepts with an emphasis on problem solving and reasoning.

Course Objectives

1. The student will make sense of problems and persevere, reason abstractly and quantitatively, model with mathematics, use tools strategically, attend to precision, make use of structure, look for and make use of repeated reasoning, construct viable arguments, and critique the reasoning of others when solving problems.
2. The student will represent and solve problems involving addition and subtraction.
3. The student will add and subtract within 20.
4. The student will work with equal groups of objects to gain foundations for multiplication.
5. The student will understand place value.
6. The student will use place value understanding and properties of operations to add and subtract.
7. The student will measure and estimate lengths in standard units.
8. The student will relate addition and subtraction to length.
9. The student will work with time and money.
10. The student will represent and interpret data.
11. The student will reason with shapes and their attributes.

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