

FOURTH GRADE**MATHEMATICS**

Goal 6: Demonstrate and apply a knowledge and sense of numbers, including numeration and operations (addition, subtraction, multiplication, division), patterns, and ratios and proportions.

Learning Standard A	Learning Standard B	Learning Standard C	Learning Standard D
Demonstrate knowledge and use of numbers and their representations in a broad range of theoretical and practical settings.	Investigate, represent and solve problems using number facts, operations (addition, subtraction, multiplication, division) and their properties, algorithms and relationships.	Compute and estimate using mental mathematics, paper-and-pencil methods, calculators and computers.	Solve problems using comparison of quantities, ratios, proportions and percents.
<ul style="list-style-type: none"> Demonstrate knowledge of basic facts of addition and subtraction 	<ul style="list-style-type: none"> Solve addition and subtraction problems with missing addends and subtrahends 	<ul style="list-style-type: none"> Use calculators to check computation Demonstrate immediate recall of basic addition and subtraction facts through 10 	<ul style="list-style-type: none"> Compare the relationship between numerals using the symbols $<$, $>$, $=$

Goal 7: Estimate, make and use measurements of objects, quantities, and relationships and determine acceptable levels of accuracy.

Learning Standard A	Learning Standard B
Measure and compare quantities using appropriate units, instruments and methods.	Estimate measurements and determine acceptable levels of accuracy.
<ul style="list-style-type: none"> Understand monetary unit Be able to tell time on an analog clock 	<ul style="list-style-type: none"> Using personal references to estimate lengths

State Goal 8: Use algebraic and analytical methods to identify and describe patterns and relationships in data, solve problems and predict results.

Learning Standard A	Learning Standard D
Describe numerical relationships using variables and patterns.	Using algebraic concepts and procedure to represent and solve problems.
<ul style="list-style-type: none"> Demonstrate a working knowledge of basic skip counting 	<ul style="list-style-type: none"> Recognize the relationship between written and numerical forms of whole numbers

State Goal 9: Use geometric methods to analyze, categorize and draw conclusions about points, lines, planes and space.

Learning Standard A	Learning Standard B
Demonstrate and apply geometric concepts involving points, lines, planes, and space.	Identify, describe, classify, and compare relationships using points, lines, planes, and solids.
<ul style="list-style-type: none"> • Understand basic terminology (i.e. line, ray, angle, segments) • Recognize basic 2-dimensional objects as existing in everyday objects 	<ul style="list-style-type: none"> • Distinguish between various 2-dimensional figures (square, octagon, pentagon, triangle, circle, rectangle) • Identify examples of parallel lines in everyday environment • Classify lines, line segments, and rays

State Goal 10: Collect, organize and analyze data using statistical methods; predict results; and interpret uncertainty using concepts of probability.

Learning Standard A	Learning Standard B	Learning Standard C
Organize, describe and make predictions from existing data.	Formulate questions, design data collection methods, gather and analyze data and communicate findings.	Determine, describe and apply the probabilities of events.
<ul style="list-style-type: none"> • Read and interpret simple pictographs 	<ul style="list-style-type: none"> • Insert data correctly when given a simple bar graph model • Collect research data individually or as a class through various means 	<ul style="list-style-type: none"> • Perform experiments and record the results of a direct observation