



The Correlation of PLATO Curricula to Idaho Content Standards

Mathematics – Grade 04

January 13, 2009

INTRODUCTION

PLATO Learning Inc. combines PLATO computer-assisted instruction into a flexible integrated learning system to enhance instructional effectiveness in education programs. This document identifies PLATO instructional activities that correlate to the Idaho Content Standards , Mathematics, Grade 04. URL: <http://www.sde.state.id.us/instruct/standards/>.

It is recommended that instructors review the correlation in order to fine-tune the activity to fit their educational environment. Modules may be added or removed; Web sites and offline activities may also be incorporated to enhance the learning path.

The following PLATO courseware was used in this correlation report:

Foundational Mathematics

Math Fundamentals

Math Expeditions C

Math Expeditions D

Math Expeditions E

Math Expeditions F

Projects for the Real World, Level B

Projects for the Real World, Level C

Projects for the Real World, Level D

PLATO Learning, Inc. looks forward to supporting your initiatives in providing successful educational programs using computer-based lessons.

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Standard I: Number and Operation

Goal I.I: Understand and use numbers.

4.M.I.I.I Read, write, compare, and order whole numbers to 100,000. (297.01.a)

Math Fundamentals

Basic Number Ideas - Beginning

Whole Numbers 0-9

Whole Numbers 0-9 Review

Whole Numbers 10-99

Whole Numbers 100-999

Numbers 10-999 Review

Hundreds and Thousands

Millions/Billions and Trillions

Math Expeditions D

Numeration D - Compare

Compare numbers to 999

Compare numbers to 9999

Numeration D - Order

Order numbers to 999

Order numbers to 9999

Numeration D - Place Value

Write standard form to 999,999

Math Expeditions E

Numeration E - Compare

Compare numbers to 999,999

Numeration E - Order

Order numbers to 999,999

Numeration E - Place Value

Identify place value to millions

Math Expeditions F

Numeration F - Compare

Compare numbers to 999,999

Numeration F - Order

Order numbers to 999,999

Numeration F - Place Value

Identify place value to millions

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Foundational Mathematics

Understanding Whole Numbers 1

Greater Than, Less Than, Equal To

Understanding Place Value: Hundreds

Understanding Whole Numbers 2

Reading and Writing Numbers in Word Form

Representing Millions and Billions

4.M.1.1.2 Identify and apply place value in whole numbers. (297.01.b)

Math Fundamentals

Basic Number Ideas - Beginning

Hundreds and Thousands

Millions/Billions and Trillions

Math Expeditions E

Numeration E - Place Value

Identify place value to millions

Math Expeditions F

Numeration F - Place Value

Foundational Mathematics

Understanding Whole Numbers 2

Understanding Place Value: Thousands

Understanding Place Value: Millions, Billions, and Beyond

4.M.1.1.3 Count the value of a collection of bills and coins up to \$100.00. (297.01.c)

Foundational Mathematics

Adding and Subtracting Whole Numbers 1

Adding Two 2-Digit Numbers: Sums Less Than 100

Performing Operations with Decimals

Solving Decimal Story Problems

Math Expeditions C

Work Tent – Tools – Money Tool

Math Expeditions C

Money C

Compare money to \$2.00

Math Expeditions D

Number Operation Multiply D

Multiply with money



4.M.1.1.4 Read, write, compare, and order commonly used fractions with pictorial representations. (297.01.d)

Math Fundamentals

Fractions

Meaning of Fractions

Equivalent Fractions

Comparing Fractions

Basic Terms Review

Ratio/Proportion/Percent

Ratio Concepts

Math Expeditions D

Fractions D - Fractions

Equivalent fractions

Math Expeditions E

Fractions E - Fractions

Compare equivalent fractions

Foundational Mathematics

Understanding Fractions

Understanding Fractions: Equal Parts of an Object

Understanding Fractions: Equal Parts of a Collection

Proper Fractions and Improper Fractions

Comparing Fractions

Ordering Fractions

Understanding Decimals

Understanding Decimals: Tenths

Working with Percent

Understanding Percent

4.M.1.1.5 Use decimal numbers with money. (297.01.e)

Math Fundamentals

Decimals

Decimal Fractions 2

Decimals Review

Math Expeditions D

Number Operations D - Multiplication

Multiply with money

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Math Expeditions E
Decimals E - Decimals
Compare, order & round decimals

Math Expeditions F
Decimals F - Decimals

Foundational Mathematics
Understanding Decimals
Comparing and Ordering Decimals

4.M.1.1.6 Select strategies appropriate for solving a problem. (298.01.a)

Foundational Mathematics
Adding and Subtracting Whole Numbers 2
Solving Addition and Subtraction Story Problems

4.M.1.1.7 Use appropriate vocabulary. (297.01.f)

PLATO Modules use common, grade-level appropriate vocabulary in each activity and provide glossaries for additional assistance in defining unknown words.

Goal 1.2: Perform computations accurately.

4.M.1.2.1 Recall multiplication facts through 10 x 10. (297.02.e)

Math Fundamentals
Multiplication
Multiplication Facts 1
Multiplication Facts 2

Math Expeditions D
Number Operations D - Multiplication
Multiply with zero through five
Multiply with fives and sixes
Multiply with sevens and eights
Multiply with nines

Math Expeditions E
Number Operations E - Multiplication
Multiply with zero through five
Multiply with fives and sixes
Multiply with sevens and eights
Multiply with nines

Foundational Mathematics
Multiplying Whole Numbers



Multiplying by 0 through 5: Multiplication Basic Facts
Multiplying by 6 through 10: Multiplication Basic Facts

4.M.1.2.2 Add and subtract whole numbers. (297.02.a)

Math Fundamentals

Addition

Addition Skills 2
Addition Skills 3
Addition Skills 4
Addition Review

Subtraction

Subtraction Skills 1
Subtraction Skills 2
Subtraction Skills 3
Subtraction Skills 4
Subtraction Review

Math Expeditions D

Number Operations D - Addition

Add three 1-digit numbers to 18
Add two 2-digit numbers
Add three or more 1-digit numbers
Add three or more 2-digit numbers
Add two 2, 3, or 4-digit numbers

Number Operations D - Subtraction

Subtract 2 digit from multiples of 10
Subtract two 2-digit numbers
Subtract 3-digit numbers
Subtract 4-digit numbers

Math Expeditions E

Number Operations E - Addition

Use mental math to add
Add two or more numbers

Number Operations E - Subtraction

Subtract 2 or 3-digit numbers
Subtract 4 of 5-digit numbers

Math Expeditions F

Number Operations F - Addition

Add two or more numbers
Add large numbers

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Number Operations F - Subtraction
Subtract numbers up to 6-digits
Subtract numbers with zeros

Foundational Mathematics

Adding and Subtracting Whole Numbers 1
Adding Two 2-Digit Numbers: Sums Less Than 100
Adding Three or Four Numbers
Subtracting Two 2-Digit Numbers
Adding Two 2-Digit Numbers: Sums Greater Than 99

Adding and Subtracting Whole Numbers 2

Adding Multi-Digit Numbers

Adding and Subtracting Whole Numbers 2

Subtracting Multi-Digit Numbers with Consecutive Regrouping

Adding and Subtracting Whole Numbers 2

Subtracting across Zeros

4.M.1.2.3 Multiply up to two-digit by two-digit whole numbers and divide whole numbers by one-digit divisors. (297.02.b)

Math Fundamentals

Multiplication

Multiplication Skills 5

Multiplication Skills 7

Multiplication Review II

Division

Division Skills 1

Division Skills 2

Division Skills 3

Division Review I

Division Skills 4

Division Skills 6

Division Review II

Math Expeditions D

Number Operations D - Division

Divide by 1-digit, with remainders

Divide by 1-digit numbers

Divide 3-digit by 1-digit numbers

Math Expeditions E

Number Operations E - Multiplication

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Multiply 2-digit by 2-digit numbers
Multiply 3-digit by 2-digit numbers

Number Operations E - Division
Divide by 1-9 with remainders
Divide 2-digit by 1-digit with remainders
Divide 3-digit by 1-digit with remainders A
Divide 3-digit by 1 digit with remainders B

Math Expeditions F
Number Operations F - Multiplication
Multiply 2-digit by 2-digit numbers
Multiply 3-digit by 2-digits
Multiply by 3-digit numbers

Number Operations F - Division
Divide 2-digit by 1-digit with remainders
Divide 3-digit by 1 digit with remainders A
Divide 3-digit by 1-digit with remainders B
Divide 3-digit and 4-digit by 1-digit with 0

Foundational Mathematics
Multiplying Whole Numbers
Multiplying a 3- Digit Number by a 1-Digit Number
Multiplying a 2- Digit Number by a 2-Digit Number

Dividing Whole Numbers
Dividing by a 1- Digit Number
Writing a Quotient as a Mixed Number

4.M.1.2.4 Add and subtract fractions with like denominators that do not require simplification. (297.02.c)

Math Fundamentals
Fractions
Adding and Subtracting Fractions I
Adding and Subtracting Fractions Review

Math Expeditions D
Fractions D - Fractions
Add and subtract fractions

Math Expeditions E
Fractions E - Fractions
Add & subtract same fractions



Math Expeditions F
Fractions F – Fractions
Add & subtract same fractions

Foundational Mathematics
Adding and Subtracting Fractions
Adding and Subtracting Fractions: Like Denominators

4.M.1.2.5 Add and subtract decimals using money. (297.02.d)

Math Fundamentals
Subtraction
Problem Solving I

Decimals
Adding and Subtracting Decimals
Decimals Review
Problem Solving 5

Math Expeditions D
Number Operations D - Addition
Add money

Number Operations D - Subtraction
Subtract with money

Decimals D - Decimals
Add and subtract decimals

Math Expeditions E
Decimals E - Decimals
Add & subtract decimals

Math Expeditions F
Decimals F - Decimals
Add & subtract decimals

Foundational Mathematics
Performing Operations with Decimals
Adding and Subtracting Decimals
Solving Decimal Story Problems

4.M.1.2.6 Select and use an appropriate method of computation from mental math, paper and pencil, calculator, or a combination of the three. (297.02.f)

Math Expeditions E
Number Operation Addition E

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Use mental math to add

4.M.1.2.7 Select and use appropriate operations to solve word problems and show or explain work. (298.01.b)

Math Fundamentals

Multiplication

Problem Solving 2

Division

Problem Solving 3

Fractions

Problem Solving 4

Decimals

Problem Solving 5

Ratio/Proportion/Percent

Problem Solving 6

Geometry and Measurement

Problem Solving 7

4.M.1.2.8 Use appropriate vocabulary. (297.02.g)

PLATO Modules use common, grade-level appropriate vocabulary in each activity and provide glossaries for additional assistance in defining unknown words.

Goal 1.3: Estimate and judge reasonableness of results.

4.M.1.3.1 Estimate to predict computation results. (297.03.a)

Math Expeditions D

Number Operations D - Addition

Estimate sums

Number Operations D - Subtraction

Estimate differences

Number Operations D - Multiplication

Estimate products

Math Expeditions E

Number Operations E - Addition

Estimate sums

Number Operations E - Subtraction

Estimate differences

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Number Operations E - Multiplication
Estimate products

Number Operations E - Division
Estimate quotients

Math Expeditions F
Number Operations F - Addition
Estimate sums

Number Operations F - Subtraction
Estimate differences

Number Operations F - Multiplication
Estimate products

Number Operations F - Division
Estimate quotients

4.M.1.3.2 Use estimation to evaluate the reasonableness of an answer. (297.03.b)

Math Expeditions D
Number Operation Addition D
Estimate sums
Number Operation Subtraction D
Estimate differences

Projects for the Real World, Level B – Plants & Seeds
Seeds Around You
Estimate How Many Seeds
Enjoy the Harvest
Estimate How Much You Have

4.M.1.3.3 Investigate the use of a four-function calculator to solve complex grade-level problems. (298.03.a)

Projects for the Real World, Level D - Body
Your Skeleton
Count the Bones

4.M.1.3.4 Use appropriate vocabulary. (297.03.c)

PLATO Modules use common, grade-level appropriate vocabulary in each activity and provide glossaries for additional assistance in defining unknown words.



Standard 2: Concepts and Principles of Measurement

Goal 2.1: Understand and use U.S. customary and metric measurements.

4.M.2.I.1 Select and use appropriate units and tools to make the formal measurements of length, temperature, and weight in both systems. (299.01.a)

Math Fundamentals

Geometry and Measurement

Linear Measurement

Measurement Review

Math Expeditions D

Measurement D - Length

Identify units of length

Measurement D - Capacity

Identify units of temperature

Math Expeditions E

Measurement E - Length

Metric units of length

Measurement E - Capacity

Metric units capacity, mass

Math Expeditions F

Measurement F - Length

Metric units of length

Measurement F - Capacity

Metric units capacity, mass, temperature

Foundational Mathematics

Measurement

Measuring Length: Metric Units

Measuring Length: Customary Units

Measuring Temperature: Fahrenheit

Measuring Temperature: Celsius

4.M.2.I.2 Estimate length, time, weight, and temperature in real-world problems using standard units. (299.01.b)

Math Fundamentals

Geometry and Measurement

Measurement Review



Math Expeditions D
Measurement D - Capacity
Identify units of temperature

Math Expeditions E
Measurement E - Length
Metric units of length

Measurement E - Capacity
Metric units capacity, mass

Math Expeditions F
Measurement F - Length
Metric units of length

Measurement F - Capacity
Metric units capacity, mass, temperature

4.M.2.1.3 Tell time to the nearest minute using digital and analog clocks. (299.01.e)

Math Fundamentals
Geometry and Measurement
Linear Measurement
Measurement Review

Math Expeditions D
Time D - Time
Tell time to the minute

Foundational Mathematics
Measurement
Telling Time to the Minute

4.M.2.1.4 Solve real-world problems related to elapsed time. (299.01.f)

Projects for the Real World, Level C – Keeping Healthy
Rest and Relaxation
See How Much Sleep You Get

Math Expeditions D
Time D
Solve problems: calendar



4.M.2.1.5 Convert units of length and time within the U. S. Customary system. (299.01.c)

- Math Fundamentals
 - Geometry and Measurement
 - Volume and Capacity Measurement
- Math Expeditions D
 - Time D
 - Tell time to the minute
 - Solve problems: calendar
- Math Expeditions E
 - Measurement Length E
 - Metric units of length
- Math Expeditions F
 - Measurement F - Capacity
 - Metric units capacity, mass, temperature
- Foundational Mathematics
 - Measurement
 - Measuring Length: Customary Units

4.M.2.1.6 State that there are 365 days in a year and 52 weeks in a year.

- Math Expeditions D
 - Time D - Time
 - Solve problems

4.M.2.1.7 Recall length and volume (capacity) equivalences involving inches, feet, yards, cups, pints, quarts, and gallons in the U.S. Customary system.

- Math Fundamentals
 - Geometry and Measurement
 - Linear Measurement
- Math Expeditions D
 - Measurement D - Length
 - Identify units of length
 - Measurement D - Capacity
 - Identify units of temperature
- Math Expeditions E
 - Measurement Length E
 - Metric units of length



Measurement E - Capacity
Metric units capacity, mass, temperature

Math Expeditions F
Measurement Length F
Metric units of length

Measurement F - Capacity
Metric units capacity, mass, temperature

Foundational Mathematics
Measurement
Measuring Length: Customary Units

4.M.2.1.8 Use appropriate vocabulary. (299.01.g)

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Standard 3: Concepts and Language of Algebra and Functions

Goal 3.1: Use algebraic symbolism as a tool to represent mathematical relationships.

4.M.3.1.1 Write a division problem using a bracket ($\overline{\hspace{1cm}}$) and/or the division symbol (\div). (300.01.a)

Math Fundamentals
Division
Division Facts

4.M.3.1.2 Write a number sentence using simple geometric shapes or letters of the alphabet as symbols to represent an unknown number. (300.01.b)

Math Fundamentals
Addition
Addition Facts 1
Addition Facts 2

Subtraction
Meaning of Subtraction
Subtraction Facts

Multiplication
Multiplication Facts 1
Multiplication Facts 2



Division

- Division Facts
- Division Skills 6
- Division Review II

Foundational Mathematics

- Understanding Addition and Subtraction I
 - Finding the Missing Number in Addition
- Understanding Addition and Subtraction I
 - Finding the Missing Number in Subtraction
- Adding and Subtracting Whole Numbers I
 - Adding 0 through 2: Addition Basic Facts
 - Adding 3 through 9: Addition Basic Facts
 - Subtraction Basic Facts
- Understanding Multiplication
 - Finding the Missing Number in Multiplication
- Multiplying Whole Numbers
 - Multiplying by 0 through 5: Multiplication Basic Facts
 - Multiplying by 6 through 10: Multiplication Basic Facts
- Dividing Whole Numbers
 - Division Basic Facts

4.M.3.1.3 Show the relationship between multiplication and division using fact families.

Math Fundamentals

- Division
 - Meaning of Division
 - Division Facts

Fractions

- Dividing Fractions I

Math Expeditions E

- Number Operations E - Division
 - Divide by 1-9 with remainders

Foundational Mathematics

- Understanding Division
 - Multiplication and Division Fact Families



4.M.3.1.4 Read and use symbols of “<,” “>,” and “=” to express relationships with numbers through 1,000,000. (300.01.c)

Foundational Mathematics

Understanding Whole Numbers I

Comparing Whole Numbers: 10 through 99

Math Expeditions D

Number Compare D

Compare numbers to 999

Compare numbers to 9999

Goal 3.2: Evaluate algebraic expressions.

4.M.3.2.1 Use the identity and zero properties of multiplication.

Math Fundamentals

Addition

Addition Properties

Multiplication

Multiplication Properties I

Division

Division Facts

Math Expeditions D

Number Operations D - Multiplication

Multiply with zero through five

Math Expeditions E

Number Operations E - Subtraction

Subtract numbers 13-18

Number Operations E - Multiplication

Multiply with zero through five

Foundational Mathematics

Understanding Addition and Subtraction 2

Using the Identity Property of Addition

Understanding Multiplication

Using the Identity Property of Multiplication



Goal 3.3: Solve algebraic equations and inequalities.

4.M.3.3.1 Solve missing factor equations. (300.03.a)

Foundational Mathematics

Understanding Addition and Subtraction I

Finding the Missing Number in Addition

Finding the Missing Number in Subtraction

Understanding Multiplication

Finding the Missing Number in Multiplication

Goal 3.4: Understand the concept of functions.

4.M.3.4.1 Identify the rule (function) for a pattern using whole numbers and addition and then extend the pattern. (303.01.a)

Math Fundamentals

Fractions

Multiples and Common Denominators

4.M.3.4.2 Use appropriate vocabulary. (303.01.c)

PLATO Modules use common, grade-level appropriate vocabulary in each activity and provide glossaries for additional assistance in defining unknown words.

Standard 4: Concepts and Principles of Geometry

Goal 4.1: Apply concepts of size, shape, and spatial relationships.

4.M.4.1.1 Identify, compare, and analyze attributes of two- and three-dimensional shapes, including parallel, intersecting, and perpendicular lines, and develop vocabulary to describe the attributes. (301.01.a)

Math Fundamentals

Geometry and Measurement

Plane Figures 1

Plane Figures 2

Common 3-Dimensional Figures

Basic Figures Review

Math Expeditions E

Geometry E - Geometry

Classify points, lines & angles

Identify geometric shapes

Math Expeditions F

Geometry F - Geometry

Classify points, lines & angles

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Identify geometric shapes
Measure angles

Foundational Mathematics
Plane and Solid Figures
Lines, Parts of Lines, and Angles
Introduction to Circles
Introduction to Solid Figures

4.M.4.1.2 Predict the results of sliding and flipping two-dimensional shapes. (301.01.d)

Math Expeditions G
Geometry G - Geometry
Identify congruent and similar

Math Expeditions H
Geometry H - Geometry
Identify congruent and similar

Math Expeditions I
Geometry I - Geometry
Identify congruent and similar

4.M.4.1.3 Identify multiple lines of symmetry in two-dimensional shapes.

Math Fundamentals
Geometry and Measurement
Figure Comparison
Basic Figures Review

Foundational Mathematics
Plane and Solid Figures
Line Symmetry in Plane Figures

4.M.4.1.4 Discuss perimeters of polygons, and areas and perimeters of rectangles and squares, using concrete objects. (301.01.c)

Math Fundamentals
Geometry and Measurement
Area Measurement
Measurement Review
Problem Solving 7

Math Expeditions D
Geometry D - Geometry
Determine perimeter of a polygon



Math Expeditions E
Geometry E - Geometry
Find the perimeter

Math Expeditions F
Geometry F - Geometry
Find the area

Foundational Mathematics
Using Geometry
Calculating the Area of Rectangles and Squares

4.M.4.1.5 Use appropriate vocabulary. (301.01.e)

PLATO Modules use common, grade-level appropriate vocabulary in each activity and provide glossaries for additional assistance in defining unknown words.

Goal 4.3: Apply graphing in two dimensions.

4.M.4.3.1 Use ordered pairs to identify the position of a point in the first quadrant on a coordinate grid.

Math Fundamentals
Geometry and Measurement
Plane Figures I
Basic Figures Review

Math Expeditions E
Geometry E - Geometry
Classify points, lines & angles

Math Expeditions F
Geometry F - Geometry
Locate coordinate points

Foundational Mathematics
Plane and Solid Figures
Lines, Parts of Lines, and Angles



Standard 5: Data Analysis, Probability, and Statistics

Goal 5.1: Understand data analysis.

4.M.5.1.1 Read and interpret simple tables, charts, bar graphs, and line graphs. (302.01.a)

Math Expeditions D

Graphs D - Graphs

Solve problems: bar graph, pictograph

Math Expeditions E

Graphs E - Graphs

Data from graphs

Math Expeditions F

Graphs F - Graphs

Data from graphs

4.M.5.1.2 Use appropriate vocabulary. (302.01.c)

PLATO Modules use common, grade-level appropriate vocabulary in each activity and provide glossaries for additional assistance in defining unknown words.

Goal 5.2: Collect, organize, and display data.

4.M.5.2.1 Collect, organize, and display data in tables and charts to answer a question. (302.02.a)

Data Skills

Constructing Graphs and Charts

Constructing Bar Graphs

Math Expeditions D

Graphs D - Graphs

Solve problems: bar graph, pictograph

Math Expeditions E

Graphs E - Graphs

Data from graphs

Math Expeditions F

Graphs F - Graphs

Data from graphs



4.M.5.2.2 Display data in a bar graph using appropriate notation such as a title, axes labels, and reasonable scales. (302.02.a)

Math Expeditions D
Graphs D - Graphs
Solve problems: bar graph, pictograph

Math Expeditions E
Graphs E - Graphs
Data from graphs

Math Expeditions F
Graphs F - Graphs
Data from graphs

Goal 5.3: Apply simple statistical measurements.

4.M.5.3.1 Find the mode of a simple set of whole number data.

Math Expeditions F
Probability F - Probability
Range, median, mode & mean

Goal 5.4: Understand basic concepts of probability.

4.M.5.4.1 Predict the results of simple probability experiments using coins or spinners (e.g., 3 out of 6 choices). (302.04.a)

Math Expeditions H
Probability H - Probability
Find probability & outcomes

Math Expeditions I
Probability I - Probability
Find probability & outcomes

Goal 5.5: Make predictions or decisions based on data.

4.M.5.5.1 Make predictions based on data. (298.01.c)

Projects for the Real World, Level H – Maya Mystery
What's in a Bone?
Graph and Compare
Observe and Compare