

**Everyday Mathematics, Fourth Grade**

**Correlations of the TEN UNDERSTANDING MATHEMATICS PLUS Programs  
By Neufeld Learning Systems Inc.  
February 2005**

**Note: a. The Understanding Math PLUS series of programs consist of 10 programs written for Kindergarten to 10<sup>th</sup> Grade.**

**The 10 programs are:**

- |   |   |
|---|---|
| <b>Understanding Fractions</b>                | <b>Understanding Whole Numbers and Integers</b> |
| <b>Understanding Probability</b>              | <b>Understanding Percent</b>                    |
| <b>Understanding Exponents</b>                | <b>Understanding Equations</b>                  |
| <b>Understanding Algebra</b>                  | <b>Understanding Graphing</b>                   |
| <b>Understanding Numeration</b>               |   |
| <b>Understanding Measurement and Geometry</b> |   |

**Note: b. The Understanding Numeration** software for K to 3 is set up so that the teacher selects items in the following order:

Concept .. from 5 concepts .. Counting, Comparing & Ordering, Place Value, Operations and Problem Solving.

Skill .. chosen from the list of specific learning expectations

Level .. indicates the levels of development for Kindergarten to 3<sup>rd</sup> grade.

<b>Level</b>	<b>Upper Range of Number</b>
<b>A</b>	<b>10</b>
<b>B</b>	<b>20</b>
<b>C</b>	<b>100</b>
<b>D</b>	<b>1000</b>

Lesson .. 250 lessons are sequenced to build understanding of concepts.

A detailed Lesson Synopsis on the website [www.neufeldmath.com](http://www.neufeldmath.com) to assist the teacher by stating the lesson contents but also by giving lesson suggestions.

Worksheet .. off computer worksheets are selected from the CD by a code.

**Note: c. The remaining 9 Understanding Math** programs for 4<sup>th</sup> to 10<sup>th</sup> grade are set up so that they can be used in a variety of teaching and learning environments ranging from a teacher centered approach with 1 computer to a student centered lab approach. The lessons can also be used in remediation, tutorial, intervention, resource, fast-tracking.

Each topic has:

- ..an interactive concept introduction, usually with a variety of graphic approaches.
- ..a number of particular examples
- ..practice questions with random questions but particular feedback
- ..a topic test with random questions and tracking

..off computer worksheets selected from the website .. [www.neufeldmath.com](http://www.neufeldmath.com)

*\*Curriculum is correlated with Understanding Math programs in the following manner:*  
**MAT+** (Understanding Math Plus, 4-10) / **Program Title** / **Topic Number & Title** / **Lesson Title**

### **Unit 1: Naming and Constructing Geometric Figures**

#### Lesson 1.1 ⇔ NAMING AND CONSTRUCTING GEOMETRIC FIGURES

**MAT+ / Understanding Measurement and Geometry / Topic 2 – Perimeter and Area of Polygons** / Polygons – What are They?: Concept, A Triangle is, A Quadrilateral is, A Pentagon is, A Hexagon is, An Octagon is, Classify Polygons

#### Lesson 1.2 ⇔ POINTS, LINE SEGMENTS, LINES, AND RAYS

**MAT+ / Understanding Graphing / Topic 3 – Points on a Grid** / Ordered Pairs: Axis, Quadrants, Find a Point, Order in Important, Examples; Shapes, Battleship

**MAT+ / Understanding Measurement and Geometry / Topic 5 – Angles and Their Measure** / In This Topic; Lines and Rays

#### Lesson 1.3 ⇔ ANGLES, TRIANGLES, AND QUADRANGLES

**MAT+ / Understanding Measurement and Geometry / Topic 5 – Angles and Their Measure** / In the Topic; Angles – An Introduction; the Degree; Classifying Angles: Classifications, Memory Game; Measuring Angles; Practice Questions; Topic Test

**MAT+ / Understanding Measurement and Geometry / Topic 6 – Angles and Polygons** / Angles in Triangles: Exploration, An Explanation, Exterior Angles; Angles in Polygons: Methods 1 & 2, Exterior Angles in a Polygon

#### Lesson 1.4 ⇔ PARALLELOGRAMS

**MAT+ / Understanding Measurement and Geometry / Topic 6 – Angles and Polygons** / Angles in Polygons: Methods 1 & 2

#### Lesson 1.5 ⇔ POLYGONS

**MAT+ / Understanding Measurement and Geometry / Topic 2 – Perimeter and Area of Polygons** / Polygons – What are They?: Concept, A Triangle is, A Quadrilateral is, A Pentagon is, A Hexagon is, An Octagon is, Classify Polygons

Lesson 1.6 ⇨ DRAWING CIRCLES WITH A COMPASS

Lesson 1.7 ⇨ CIRCLE CONSTRUCTION

**MAT+ / Understanding Measurement and Geometry / Topic 3 – The Circle /**  
In This Topic; Circle All Around Us!; Radius, Circumference, Diameter; PI...A  
Special Number: Introduction, How do we Measure Circumference?, Measuring  
Circles, Summary

Lesson 1.8 ⇨ HEXAGON AND TRIANGLE CONSTRUCTIONS

**MAT+ / Understanding Measurement and Geometry / Topic 2 – Perimeter  
and Area of Polygons / Polygons – What are They?: A Triangle is, A Hexagon  
is,**

## **Unit 2: Using Numbers and Organizing Data**

Lesson 2.1 ⇨ A VISIT TO WASHINGTON, D.C.

Lesson 2.2 ⇨ MANY NAMES FOR NUMBERS

Lesson 2.3 ⇨ PLACE VALUE IN WHOLE NUMBERS

**NUM / PLACE VALUE / Identify Place Value Patterns (to 100) / C /** Picture  
to Numbers #2; Tens and Ones to Pictures #2; Numbers to Pictures #2; 2 Digit  
Numbers – Different Ways

**NUM / PLACE VALUE / Identify Place Value Patterns (to 1000) / D /**  
Expanded Notation

**MAT+ / Understanding Whole Numbers and Integers / Topic 1 – The  
Meaning of Whole Numbers CAN/US /** Place Value to 999 999: Examples 1  
through 5, The Number Line, Examples 1 & 2

Lesson 2.4 ⇨ PLACE VALUE WITH A CALCULATOR

Lesson 2.5 ⇨ ORGANIZING AND DISPLAYING

**MAT+ / Understanding Graphing / Topic 1 – Reading and Sketching Graphs**  
/ In This Topic; Graphs without a Scale: Concept – Age and Weight, Examples 1  
through 13; Graphs with a Scale: Concept – Distance and Time, Examples 1  
through 14; Discrete Data; Continuous Data; Extrapolation; Practice Questions;  
Topic Test

Lesson 2.6 ⇨ THE MEDIAN

**MAT+ / Understanding Graphing / Topic 2 – Statistics /** Measures of Central  
Tendency: Introduction, The Median Average

Lesson 2.7 ⇨ ADDITION OF MULTI-DIGIT NUMBERS

**NUM / OPERATIONS / Add 3 Digit Numbers...Concretely / D /** Addition Without Regrouping; Addition With Regrouping

**NUM / OPERATIONS / Add 3 Digit Numbers...Abstractly / D /** Addition Without Regrouping; Addition With Regrouping

**MAT+ / Understanding Whole Numbers and Integers / Topic 2 – Adding and Subtracting Whole Numbers /** Add - Partial Sums: Examples 1 through 6; Add – Trade First: Examples 1 through 6; Add – Right to Left: Examples 1 through 6

Lesson 2.8 ⇨ DISPLAYING DATA WITH A BAR GRAPH

**MAT+ / Understanding Graphing / Topic 2 – Statistics /** Bar Graph 1 & 2

Lesson 2.9 ⇨ SUBTRACTION OF MULTI-DIGIT NUMBERS

**NUM / OPERATIONS / Subtract 3 Digit Numbers...Concretely / D /** Subtraction Without Regrouping; Subtraction With Regrouping

**NUM / OPERATIONS / Subtract 3 Digit Numbers...Abstractly / D /** Subtraction Without Regrouping; Subtraction With Regrouping

**MAT+ / Understanding Whole Numbers and Integers / Topic 2 – Adding and Subtracting Whole Numbers /** Subtract – Right to Left: Examples 1 through 6; Subtract – Trade First: Examples 1 through 6; Subtract – Add Up: Examples 1 through 6; Subtract – Add up to Zero: Examples 1 through 4

**Unit 3: Multiplication and Division; Number Sentences and Algebra**

Lesson 3.1 ⇨ MULTIPLICATION FACTS

Lesson 3.2 ⇨ MULTIPLICATION FACTS PRACTICE

Lesson 3.3 ⇨ MORE MULTIPLICATION FACTS PRACTICE

**MAT+ / Understanding Whole Numbers and Integers / Topic 3 – Multiplying and Dividing Whole Numbers /** Multiplication Facts: Groups of 6,7,8,9; Commutative Property:  $5 \times 1 = 1 \times 5$ , etc.; The 10x10 Multiplication Table: User Picks, Computer Picks; The 12x12 Multiplication Table: Associative Property, Examples 1,2; Multiples of 10, 100, 1000: Patterns in Multiplication by 10, Patterns in Multiplication by 100, Patterns in Multiplication by 1000, Examples 1,2,3

Lesson 3.4 ⇨ MULTIPLICATION, DIVISION, AND FRACTIONS

**MAT+ / Understanding Whole Numbers and Integers / Topic 3 – Multiplying and Dividing Whole Numbers /** Multiplying by a Single Digit Number: Repeated Addition: Repeated Addition Examples 1 through 4; Divide by a Single Digit Divisor: Fair Sharing Examples 1,2, Questions 1 through 6

**MAT+ / Understanding Fractions / Topic 1 – The Meaning of Fractions /** Fractions in the News; Introduction – Think, Write, Say: Circle, Squares, Balls,

Examples; Parts of a Fraction; Introduce Fractions: Part of a Whole, One Half, One Third, One Quarter; Parts of a Whole: Two Fifths, Three Eighths, Seven Tenths; Write the Fraction: Questions 1 through 4; Fraction of a Set: Examples 1 through 3; Fraction of a Gas Tank; Fraction Strips: Concepts 1 through 4; Comparison of Fractions: The Symbol – Greater Than, Less Than, Greater and Less Than, Concepts 1 & 2, Examples 1 through 4; Fractions on a Number Line: Halves, Thirds, Quarters, Summary; Pattern Blocks: Examples 1 through 4; Fraction of Pie; The Clock; fractions of Odd Shapes; Word Problems; Fruit Basket: Questions 1 through 4; School Supplies; Practice Questions; Topic Test

Lesson 3.5 ⇨ WORLD TOUR: FLYING TO AFRICA

Lesson 3.6 ⇨ FINDING AIR DISTANCES

Lesson 3.7 ⇨ A GUIDE FOR SOLVING NUMBER STORIES

Lesson 3.8 ⇨ TRUE OR FALSE NUMBERS SENTENCES

Lesson 3.9 ⇨ PARENTHESES IN NUMBER SENTENCES

Lesson 3.10 ⇨ OPEN SENTENCES

Lesson 3.11 ⇨ LOGIC PROBLEMS

**MAT+ / Understanding Whole Numbers and Integers / Topic 2 – Adding and Subtracting Whole Numbers / Whole Numbers Around Us: Examples 1 through 11**

**MAT+ / Understanding Whole Numbers and Integers / Topic 3 – Multiplying and Dividing Whole Numbers / Whole Numbers Around Us: Examples 1 through 11**

#### **Unit 4: Decimals and their Uses**

Lesson 4.1 ⇨ DECIMALS: REVIEW OF BASIC CONCEPTS

**MAT+ / Understanding Fractions / Topic 5 – Introduction to Decimals / Introduction to Decimals: Tenths and Decimals, Ones and Tenths, Decimals on a Number Line, Examples 1 through 5**

Lesson 4.2 ⇨ COMPARING AND ORDERING DECIMALS

**MAT+ / Understanding Fractions / Topic 5 – Introduction to Decimals / Comparing Decimals: Examples 1 through 4; Ordering Decimals: Examples 1 through 4**

Lesson 4.3 ⇨ ESTIMATING WITH DECIMALS

Lesson 4.4 ⇨ DECIMAL ADDITION AND SUBTRACTION

**MAT+ / Understanding Fractions / Topic 14 – Addition and Subtraction of Decimals / Adding Decimals: Tenths – The Pencil, Examples 1 through 5, Tenths**

– The Line, Examples 1 through 4, Hundredths – The Town, Examples 1 through 4; Method 1 – Partial Sums, Examples 1 through 6; Method 2 – Columns, Examples 1 through 6; Method 3 – Right to Left, Examples 1 through 6; Subtracting Decimals: Tenths – The Pencil, Examples 1 through 5, Hundredths – The Field, Examples 1 through 4; Method 1 – Right to Left, Examples 1 through 6; Method 2 – Trade First, Examples 1 through 6; Method 3 – Add Up, Examples 1 through 8; Method 4 – Add Up to Zero, Examples 1 & 2

Lesson 4.5 ⇨ DECIMALS AND MONEY

**MAT+ / Understanding Fractions / Topic 14 – Addition and Subtraction of Decimals /** Decimals Around Us: Money: Examples 1 through 5

Lesson 4.6 ⇨ THOUSANDTHS

**MAT+ / Understanding Fractions / Topic 5 – Introduction to Decimals /** Ones, Tenths, Hundredths, Thousandths: Decimals to Thousandths – Examples 1 through 5

Lesson 4.7 ⇨ METRIC UNITS OF LENGTH

Lesson 4.8 ⇨ PERSONAL REFERENCES FOR METRIC LENGTH

Lesson 4.9 ⇨ MEASURING IN MILLIMETERS

**MAT+ / Understanding Measurement and Geometry / Topic 1 – An Introduction to Measurement /** Measurement in the News; A Glimpse into the Past; Metric and U.S.A. Standard Measurement Systems: Searching for the Standard Unit, Related Units for Metric Prefixes, Metric Prefixes at Work

Lesson 4.10 ⇨ DECIMAL PLACE VALUE

**MAT+ / Understanding Fractions / Topic 5 – Introduction to Decimals /** Place Value: Ones and Tenths 1, Ones and Tenths 2; Tens, Ones, and Tenths, Decimals on a Number Line, Hundreds and Tenths, Greater and Less Than; Ones, Tenths, Hundredths, Thousandths: Decimals to Tenths, Decimals to Hundredths, Decimals to Thousandths; Understanding Place Value: Examples 1 through 4; Equivalent Decimals: Examples 1 through 4; Rounding Decimals: Examples 1 through 5, Special Cases 1, 2, Summary; Practice Questions; Topic Test

**Unit 5: Big Numbers, Estimation, and Computation**

Lesson 5.1 ⇨ EXTENDED MULTIPLICATION FACTS

**MAT+ / Understanding Whole Numbers and Integers / Topic 3 – Multiplying and Dividing Whole Numbers /** The 12x12 Multiplication Table: Associative Property, Examples 1,2; Multiples of 10, 100, 1000: Patterns in Multiplication by 10, Patterns in Multiplication by 100, Patterns in Multiplication by 1000, Examples 1,2,3

Lesson 5.2 ⇨ MULTIPLICATION WRESTLING

Lesson 5.3 ⇨ ESTIMATING SUMS

Lesson 5.4 ⇨ ESTIMATING PRODUCTS

**MAT+ / Understanding Whole Numbers and Integers / Topic 2 – Adding and Subtracting Whole Numbers / Whole Numbers Around Us: Examples 1 through 11**

**MAT+ / Understanding Whole Numbers and Integers / Topic 3 – Multiplying and Dividing Whole Numbers / Whole Numbers Around Us: Examples 1 through 11**

Lesson 5.5 ⇨ THE PARTIAL-PRODUCTS ALGORITHM FOR MULTIPLICATION (PART 1)

Lesson 5.6 ⇨ THE PARTIAL-PRODUCTS ALGORITHM FOR MULTIPLICATION (PART 2)

**MAT+ / Understanding Whole Numbers and Integers / Topic 3 – Multiplying and Dividing Whole Numbers / Partial Products Examples 1 through 6, Questions 1,2,3**

Lesson 5.7 ⇨ LATTICE MULTIPLICATION

**MAT+ / Understanding Whole Numbers and Integers / Topic 3 – Multiplying and Dividing Whole Numbers / Lattice Method: Lattice Method – Examples 1,2,3, Lattice Method – Questions 1,2,3**

Lesson 5.8 ⇨ BIG NUMBERS

**MAT+ / Understanding Whole Numbers and Integers / Topic 1 – The Meaning of Whole Numbers CAN/US / Seeing the Number: To Tens – Examples 1 & 2, To Hundreds – Examples 1 & 2, To Thousands – Examples 1,2,3; Millions: Examples 1 through 4, The Number Line; Billions: Example 1**

Lesson 5.9 ⇨ POWERS OF 10

**MAT+ / Understanding Whole Numbers and Integers / Topic 1 – The Meaning of Whole Numbers CAN/US / Expanded Notation: To 999 – Examples 1 & 2, To 9999 – Examples 1 & 2, Write as Numerals – Examples 1 & 2, The Number Line**

Lesson 5.10 ⇨ ROUNDING AND REPORTING LARGE NUMBERS

**MAT+ / Understanding Whole Numbers and Integers / Topic 1 – The Meaning of Whole Numbers CAN/US / Represent Numbers in Many Ways: Examples 1 through 5; Comparing Large Numbers: Examples 1 through 4;**

Ordering Large Numbers: Examples 1 through 4; Rounding Large Numbers: Examples 1 through 5

Lesson 5.11 ⇨ WORLD TOUR: TRAVELLING TO EUROPE

## **Unit 6: Division; Map Reference Frames; Measures of Angles**

Lesson 6.1 ⇨ A MULTIPLES STRATEGY FOR DIVISION

Lesson 6.2 ⇨ THE PARTIAL-QUOTIENTS DIVISION ALGORITHM **MAT+ / Understanding Whole Numbers and Integers / Topic 8 –Dividing Integers /** Division to Multiplication; The Division Table: Instructions, Patterns, Practice; The Inverse of Multiplication: Examples 1 & 2; Summaries 1 & 2; Example Questions 1 through 4; Word Problems: Casino, Plant, Graham’s Walk; Practice Questions; Topic Test

Lesson 6.3 ⇨ MULTIPLICATION AND DIVISION NUMBER STORIES

**MAT+ / Understanding Whole Numbers and Integers / Topic 3 – Multiplying and Dividing Whole Numbers /** Whole Numbers Around Us: Examples 1 through 11

Lesson 6.4 ⇨ EXPRESSING AND INTERPRETING REMAINDERS

**MAT+ / Understanding Whole Numbers and Integers / Topic 3 – Multiplying and Dividing Whole Numbers /** Divide by a Single Digit Divisor: Fair Sharing Examples 1& 1, Questions 1 through 6

Lesson 6.5 ⇨ RECTANGULAR COORDINATE GRIDS FOR MAPS

**MAT+ / Understanding Graphing / Topic 3 – Points on a Grid /** Ordered Pairs: Axis, Quadrants, Find a Point, Order in Important, Examples; Shapes, Battleship

Lesson 6.6 ⇨ ROTATIONS AND ANGLES

Lesson 6.7 ⇨ USING A CIRCULAR PROTRACTOR

Lesson 6.8 ⇨ THE HALF-CIRCLE PROTRACTOR

**MAT+ / Understanding Graphing / Topic 4 – Transformations /** In This Topic; What is a Transformation?; Introduction to Common Transformations; Rotations – An Introduction, Turn #1, #2, #3, #4

**MAT+ / Understanding Measurement and Geometry / Topic 5 – Angles and Their Measure /** In This Topic; Lines and Rays; Angles – An Introduction; the Degree; Classifying Angles: Classifications, Memory Game; Measuring Angles

Lesson 6.9 ⇨ THE GLOBAL GRID SYSTEM

Lesson 6.10 ⇨ LATITUDE AND LONGITUDE

## **Unit 7: Fractions and their Uses; Chance and Probability**

### Lesson 7.1 ⇨ REVIEW OF BASIC FRACTION CONCEPTS

**MAT+ / Understanding Fractions / Topic 1 – The Meaning of Fractions /** Fractions in the News; Introduction – Think, Write, Say: Circle, Squares, Balls, Examples; Parts of a Fraction; Introduce Fractions: Part of a Whole, One Half, One Third, One Quarter; Parts of a Whole: Two Fifths, Three Eighths, Seven Tenths; Write the Fraction: Questions 1 through 4;; Fraction of a Gas Tank; Comparison of Fractions: The Symbol – Greater Than, Less Than, Greater and Less Than, Concepts 1 & 2, Examples 1 through 4; Fractions on a Number Line: Halves, Thirds, Quarters, Summary; Fraction of Pie; The Clock; fractions of Odd Shapes; Word Problems; Fruit Basket: Questions 1 through 4; School Supplies; Practice Questions; Topic Test

### Lesson 7.2 ⇨ FRACTIONS OF SETS

**MAT+ / Understanding Fractions / Topic 1 – The Meaning of Fractions /** Fraction of a Set: Examples 1 through 3

### Lesson 7.3 ⇨ PATTERN-BLOCK FRACTIONS

**MAT+ / Understanding Fractions / Topic 1 – The Meaning of Fractions /** Fraction Strips: Concepts 1 through 4; Pattern Blocks: Examples 1 through 4

### Lesson 7.4 ⇨ FRACTION ADDITION AND SUBTRACTION

**MAT+ / Understanding Fractions / Topic 8 – Adding Fractions /** Pattern Blocks; Fraction Strips; Percent Strips; Decimal Strips; Adding Fractions on a Number Line; Word Problems

**MAT+ / Understanding Fractions / Topic 9 - Subtracting Fractions /** Pattern Blocks; The Clock; Fraction Strips; Percent Strips; Decimal Strips; Subtracting Fractions on a Number Line; Word Problems

### Lesson 7.5 ⇨ CLOCK FRACTIONS

### Lesson 7.6 ⇨ MANY NAMES FOR FRACTIONS

### Lesson 7.7 ⇨ EQUIVALENT FRACTIONS

**MAT+ / Understanding Fractions / Topic 3 – Equivalent Fractions /** Introduction: Square, Triangle; Pattern Blocks: Hexagon 1,2; Fraction Strips: Concepts 1,2; The Clock: Introduction 1,2, Examples; Equivalent Fractions on a Number Line; Comparison of Fractions; Equivalent Fractions in a Multiplication Table; One; Equivalent Fractions – The Pattern; Example Questions; Greatest

Common Factor; Simplifying Fractions; Memory Game; Practice Questions;  
Topic Test

Lesson 7.8 ⇨ FRACTIONS AND DECIMALS

**MAT+ / Understanding Fractions / Topic 15 – Fractions and Decimals /**  
Compare Fractions Methods 1 & 2; Fraction to Decimals; Repeating Decimals:  
An Example, How to Write Them; Decimals to Fractions: Place Value, Examples  
1 through 5; Rounding; My Day; Fraction to Decimal Division Table; Practice  
Questions; Topic Test

Lesson 7.9 ⇨ COMPARING FRACTIONS

**MAT+ / Understanding Fractions / Topic 3 – Equivalent Fractions /**  
Comparison of Fractions

Lesson 7.10 ⇨ THE ONE FOR FRACTIONS

**MAT+ / Understanding Fractions / Topic 3 – Equivalent Fractions / One**

Lesson 7.11 ⇨ PROBABILITY, FRACTIONS, AND SPINNERS

**MAT+ / Understanding Probability / Topic 1 – An Introduction to  
Probability /** The Language of Chance; Impossible to Certain: Activities 1 & 2;  
Probability Lines: Lines 1 & 2; Experiments with Spinners: Experiments 1  
through 6; The Spinner Game: Boards 1 & 2; IT's in the Bag; Tree Diagrams:  
Meals, Socks

**MAT+ / Understanding Probability / Topic 2 – What's the Chance? /**  
Probability: What is it? Introduction 1, Introduction 2; Probability Examples 1  
through 12; The Probability Scale: Examples, Summary, Follow Up, Soccer  
Example; Experimental Probability: Introduction; Examples 1 & 2; Practice  
Questions

Lesson 7.12 ⇨ A CUBE-DROP EXPERIMENT

**Unit 8: Perimeter and Area**

Lesson 8.1 ⇨ KITCHEN LAYOUTS AND PERIMETER

**MAT+ / Understanding Measurement and Geometry / Topic 2-Perimeter  
and Area of Polygons /** Walk Around a Polygon: Joan Walks, Perimeter of  
Various Shapes, Examples 1,2,3; Perimeter of the Ranch

Lesson 8.2 ⇨ SCALE DRAWINGS

Lesson 8.3 ⇨ AREA

Lesson 8.4 ⇨ WHAT IS THE AREA OF MY SKIN?

Lesson 8.5 ⇨ FORMULA FOR THE AREA OF A RECTANGLE

Lesson 8.6 ⇨ FORMULA FOR THE AREA OF A PARALLELOGRAM

Lesson 8.7 ⇨ FORMULA FOR THE AREA OF A TRIANGLE

**MAT+ / Understanding Measurement and Geometry / Topic 2-Perimeter and Area of Polygons** / Amount of Surface: The Driveway – An Introduction to Area; Area – Estimation; Area of a Rectangle Relationship – Area and Perimeter: The Information, The Graph; Given Area and Perimeter – Create Shapes: Examples 1 through 4; Practice Questions

Lesson 8.8 ⇨ GEOGRAPHICAL AREA MEASUREMENTS

## Unit 9: Percents

Lesson 9.1 ⇨ FRACTIONS, DECIMALS, AND PERCENTS

Lesson 9.2 ⇨ CONVERTING “EASY” FRACTIONS TO DECIMALS AND PERCENTS

Lesson 9.3 ⇨ USING A CALCULATOR TO CONVERT FRACTIONS TO DECIMALS

Lesson 9.4 ⇨ USING A CALCULATOR TO CONVERT FRACTIONS TO PERCENTS

Lesson 9.5 ⇨ CONVERSIONS AMONG FRACTIONS, DECIMALS, AND PERCENTS

**MAT+ / Understanding Fractions / Topic 6 – Percent, Fractions, Decimals** / Expressing a Percent as a Fraction: Introduction with/without Graphics; Expressing a Fraction in Simplest Form: Greatest Common Factor, Simplifying Fractions, The Watering Can; Expressing a Percent as a Decimal: Introduction, Examples 1,2,3; Number Line #1; Decimal Strips: Concepts 1,2,3; Expressing a Decimal as a Percent: An Example, Methods 1 & 2, Lightning Example; Number Line #2; Chart; Practice Questions; Topic Test

Lesson 9.6 ⇨ COMPARING THE RESULTS OF A SURVEY

Lesson 9.7 ⇨ COMPARING POPULATION DATA

**MAT+ / Understanding Graphing / Topic 2 – Statistics** / Data – What is it?; Examples of Data: Examples 1 through 6, Summary

Lesson 9.8 ⇨ MULTIPLICATION OF DECIMALS

Lesson 9.9 ⇨ DIVISION OF DECIMALS

## Unit 10: Reflections and Symmetry

Lesson 10.1 ⇨ EXPLORATIONS WITH A TRANSPARENT MIRROR

Lesson 10.2 ⇨ FINDING LINES OF REFLECTION

Lesson 10.3 ⇨ PROPERTIES OF REFLECTIONS

Lesson 10.4 ⇨ LINE SYMMETRY

**MAT+ / Understanding Graphing / Topic 4 – Transformations** / Reflections – An Introduction, Flip #1, #2, #3, #4; Lines of Symmetry – An Introduction: Introduction, Examples 1 through 4; Symmetry Match: Puzzle 1,2

Lesson 10.5 ⇨ FRIEZE PATTERNS

Lesson 10.6 ⇨ POSITIVE AND NEGATIVE NUMBERS

**MAT+ / Understanding Whole Numbers and Integers / Topic 4 – The Meaning of Integers** / Integers Around Us: Temperature, Helicopter, Submarine, Elevator; The Integer Line; Opposite Integers; Absolute Values; Comparing Integers; Example Questions

## Unit 11: 3-D Shapes, Weight, Volume and Capacity

Lesson 11.1 ⇨ WEIGHT

Lesson 11.2 ⇨ GEOMETRIC SOLIDS

Lesson 11.3 ⇨ CONSTRUCTING GEOMETRIC SOLIDS

**MAT+ / Understanding Measurement and Geometry / Topic 4 – Solids-Volume and Surface Area** / In This Topic; Classifying Solids: A Solid is..., Recall Polygons, A Polyhedron is, A Prism is, Some Special Pyramids, A Cylinder is, A Cone is, Platonic Solids

Lesson 11.4 ⇨ A VOLUME EXPLORATION

Lesson 11.5 ⇨ A FORMULA FOR THE VOLUME OF RECTANGULAR PRISMS

**MAT+ / Understanding Measurement and Geometry / Topic 4 – Solids-Volume and Surface Area** / Volume of a Solid: The Concept

Lesson 11.6 ⇨ SUBTRACTION OF POSITIVE AND NEGATIVE NUMBERS

**MAT+ / Understanding Whole Numbers and Integers / Topic 5 – Adding Integers** / Writing Positive Integers: Examples 1,2,3; Word Problems; Practice Questions

**MAT+ / Understanding Whole Numbers and Integers / Topic 6 – Subtraction of Integers** / Example Questions 1 through 6; Going for a Walk; Word Problems; Practice Questions

Lesson 11.7 ⇒ CAPACITY AND WEIGHT

**Unit 12: Rates**

Lesson 12.1 ⇒ INTRODUCING RATES

Lesson 12.2 ⇒ SOLVING RATE PROBLEMS

Lesson 12.3 ⇒ CONVERTING BETWEEN RATES

Lesson 12.4 ⇒ COMPARISON SHOPPING: PART 1

Lesson 12.5 ⇒ COMPARISON SHOPPING: PART 2

Lesson 12.6 ⇒ WORLD TOUR WRAP-UP