

## Grade K Math Curriculum

### • Unit 1 – Compare and Sort Objects

This unit covers sorting by single or multiple attributes and comparing to determine things that are the same, things that are different, and groups with more, fewer, or the same number of objects.

### • Unit 2 – Use Numbers 0 to 5

This unit covers the meaning of the numbers 0 through 5, as well as typing, counting, comparing, and ordering these numbers.

### • Unit 3 – Describe Position and Patterns

This unit describes positioning, including over, under, above, and below, as well as top, middle, bottom, before, and after. It discusses how to identify patterns, including object, sound, movement, and prediction patterns.

### • Unit 4 – Use Numbers to 10

This unit covers the meaning of the numbers 6 through 10 as well as typing these numbers, comparing, ordering, and counting backwards with the numbers 0 through 10. The unit also covers Ordinal Numbers and Counting to 100, as well as Counting forward and backward from 0 to 10.

### • Unit 5 – Construct and Use Graphs

This unit covers collecting and recording data, including performing a survey, how to read graphs, and graphing using real objects and picture graphs.

### • Unit 6 – Use Numbers to 20

This unit covers the meaning of the numbers 11 through 20, as well as typing, comparing, and ordering these numbers.

### • Unit 7 – Compare Measurements

This unit covers comparing length, weight, capacity, area, and temperature, and ordering length.

### • Unit 8 – Use Numbers Beyond 20

This unit covers the meaning of the numbers 21 through 30, as well as comparing and ordering these numbers and estimating.

### • Unit 9 – Time / Money

This unit covers basic concepts of time, including time of day (morning, afternoon, and evening), the days of the week, yesterday, today, and tomorrow, how to read a calendar, and how to use an analog and a digital clock. It also covers identifying and understanding the value of the basic monetary units (pennies, nickels, dimes, and quarters).

### • Unit 10 – Describe Geometric Figures

This unit introduces concepts of geometry including basic 2- and 3-dimensional shapes (rectangles, squares, circles, triangles, cubes, spheres, cones, and cylinders), the differences between 2- and 3-dimensional figures, basic properties of 3-dimensional objects (rolling, sliding, and stacking), equal parts, and 2-dimensional figures in position.

### • Unit 11 – Model Addition

This unit includes using objects to add, solving addition stories, recognizing the addition sign, and adding to make the numbers 4 through 9, as well as practicing addition.

### • Unit 12 – Model Subtraction

This unit includes using objects to subtract, solving subtraction stories, recognizing the subtraction sign, and subtracting from the numbers 4 through 9, as well as recognizing the equals sign and practicing addition.

[Acellus Overview](#) | [Curriculum](#) | [Deployment](#) | [Support](#) | [Grant Funding](#) | [Impact](#)

#### Deployment Areas

Supplemental Instruction  
Special Education  
Response to Intervention  
SAT/ACT Exam Preparation  
End-of-Course Exam Prep

Credit Recovery  
English Language Learners  
Advanced Placement  
Summer School  
GED and Adult Education

#### Academy Info

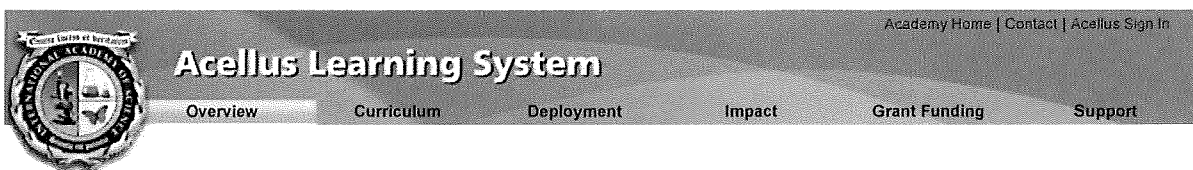
Academy Home  
Project Educate  
Education  
Make a Donation  
Volunteer Program

#### Contact Info

Phone: 816-229-3800  
Send email



Copyright © 2006-2013 International Academy of Science. All Rights Reserved.



## Grade 1 Math Curriculum

### • Unit 1 – Number Sense

This Unit addresses comparing and recognizing equal numbers of objects, recognizing number words and counting and ordering numbers from 0 through 20, and ordinal numbers.

### • Unit 2 – Addition

This unit explains various ways of doing addition, including addition stories, horizontal and vertical sentences, and the "part-part-whole" concept. Also covered are the concept of adding zero, the order property, and using addition to make numbers.

### • Unit 3 – Subtraction

This unit explains various ways of doing subtraction, including subtraction stories, horizontal and vertical sentences, and the "part-part-whole" concept. Also covered are the concept of subtracting zero, subtracting all, different ways to take numbers apart, and using subtraction to compare.

### • Unit 4 – More About Addition and Subtraction

This unit explains how addition and subtraction are related, how to know when to use addition and subtraction, how to find related facts, and how to write number sentences.

### • Unit 5 – Addition and Subtraction Strategies

This unit discusses counting on and counting back, including using a number line. It also covers adding doubles and near doubles, and thinking about addition when subtracting.

### • Unit 6 – Relating Addition and Subtraction Facts to 12

This unit discusses related addition and subtraction facts, fact families, and using sums and differences to make numbers. It also introduces tables, and discusses writing addition and subtraction problems.

### • Unit 7 – Graphs, Data, and Probability

This unit explains sorting, classifying, and making picture, tally, and bar graphs. In addition, it covers the concepts of possible and impossible, likely and less likely events.

### • Unit 8 – Place Value

In the context of place value, this unit discusses "tens" and "ones," the numbers 10 through 20, groups of ten, expanding numbers, and estimation.

### • Unit 9 – Compare and Order Numbers

This unit covers the concepts of greater than and less than and their symbols, including using the symbols to compare numbers. It also covers the concepts of "one less" and "one more," as well as "ten less" and "ten more," numbers that come before, between, and after, and how to order larger numbers.

### • Unit 12 – Patterns

This unit covers identifying, extending, transferring, creating, growing, and shrinking both pictorial and number, patterns.

### • Unit 13 – Spatial Sense

This unit explains spatial sense, including congruent figures, words that indicate position, and how to follow directions.

### • Unit 14 – Fractions

This unit introduces fractions by discussing equal and unequal parts, halves, fourths, and thirds.

### • Unit 15 – More Addition Practice

This unit extends the discussion of addition, discussing doubles and near doubles, adding onto ten, adding by making a ten, and adding three numbers. Students are given practice on addition facts to 20.

### • Unit 16 – More Subtraction Practice

This unit offers more discussion of using a number line to subtract, using subtraction to compare, and thinking about addition to subtract. Students are given more practice on subtraction facts.

### • Unit 17 – Relating Addition/Subtraction Facts to 20

This unit discusses fact families, finding missing numbers, adding and subtracting to make 20, practicing using tables, and writing addition and subtraction problems.

### • Unit 18 – Counting Money

This unit explains the US monetary units of pennies, nickels, dimes, quarters and dollars, as well as counting pennies, nickels, and dimes.

### • Unit 19 – Clocks and Calendars

This unit extends the discussion of Analog and Digital Clocks, what a "half hour" is, how calendars are used, and the concepts of morning, afternoon, and evening. Students are given practice reading the time.

### • Unit 20 – Temperature and Length

This unit covers comparing, measuring, and estimating length, nonstandard units, and choosing appropriate nonstandard units of length. Inches, centimeters, and temperature are also discussed.

### • Unit 21 – Weight and Capacity

This unit covers using a balance to measure weight, comparing weight, comparing capacity, choosing appropriate nonstandard units for weight and for capacity, the definition of pounds, cups, pints, quarts, and choosing the correct measuring tool.

**• Unit 10 – Patterns of Numbers**

This unit covers counting forward and backward, skip counting by twos, fives, and tens, beginning at any number and counting by tens, skip counting on hundreds charts, identifying patterns in numbers, and recognizing even and odd numbers.

**• Unit 11 – Geometric Solid and Plane Figures**

This unit explores and discusses the classification of solid and plane figures.

**• Unit 22 – 2-digit Addition/Subtraction, Place Value**

This unit covers using mental math, adding and subtracting tens and ones, adding and subtracting two-digit numbers, and making reasonable estimates.

[Acellus Overview](#) | [Curriculum](#) | [Deployment](#) | [Support](#) | [Grant Funding](#) | [Impact](#)

**Deployment Areas**

Supplemental Instruction  
Special Education  
Response to Intervention  
SAT/ACT Exam Preparation  
End-of-Course Exam Prep

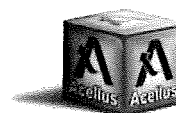
Credit Recovery  
English Language Learners  
Advanced Placement  
Summer School  
GED and Adult Education

**Academy Info**

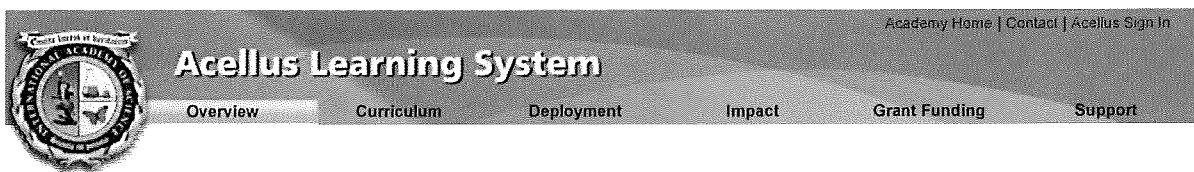
Academy Home  
Project Educate  
Education  
Make a Donation  
Volunteer Program

**Contact Info**

Phone: 816-229-3800  
[Send email](#)



Copyright © 2006-2013 International Academy of Science. All Rights Reserved.



## Grade 2 Math Curriculum

### • Unit 1 – Addition Facts

This Unit includes a review of basic addition and goes on to discuss word problems, counting on, doubles and near doubles, making a ten and adding a zero, changing the order of addends, number patterns, and adding three numbers. Math fact practice problems are provided.

### • Unit 2 – Subtraction Facts

This unit provides a review of basic subtraction, then discusses word problems, counting back, completing fact families, using addition to find differences, and identifying missing addends.

### • Unit 3 – Place Value I

This unit explains what place value is, the place value of ones and tens, the expanded form of numbers, number words to 100, and how to model numbers in different ways.

### • Unit 4 – Compare & Order Numbers/Number Concepts

This unit discusses ordinal numbers, comparing numbers with greater than, less than, and equals symbols, ordering numbers, rounding to the nearest ten, odd and even numbers, number patterns on hundred charts, and skip counting by ten from any number.

### • Unit 5 – Two-digit Addition I

This unit covers adding a multiple of ten, regrouping when adding, and modeling, recording, and practicing two-digit addition.

### • Unit 6 – Two-digit Addition II

This unit reviews and provides practice for adding two-digit numbers, and discusses rewriting two-digit addition, adding tens (mental math), estimating sums, and using a table.

### • Unit 7 – Two-digit Subtraction I

This unit covers subtracting a multiple of ten, regrouping when subtracting, and modeling, recording, and practicing two-digit subtraction.

### • Unit 8 – Two-digit Subtraction II

This unit reviews and provides practice for subtracting two-digit numbers, and discusses rewriting two-digit subtraction, subtracting tens (mental math), checking subtraction using addition, estimating differences, and solving real world situations. It provides additional practice for two-digit addition and subtraction.

### • Unit 9 – Collect and Graph Data

This unit explains how to take a survey, and how to use bar graphs, pictographs, and line plots. It also describes how to locate points on grids.

### • Unit 13 – Time

This unit discusses minutes and hours, telling time to fifteen minutes and to five minutes, recognizing minutes before the hour, using a.m. and p.m., determining how much time has passed, days, weeks, months, years, and calendars.

### • Unit 14 – Geometric Solids

This unit covers identifying solid figures, which solid figures slide and roll, faces, edges and vertices of solid figures, and solid and plane figures.

### • Unit 15 – Plane Figures and Transformations

This unit identifies plane figures and their slides and vertices. It further discusses combining and separating plane figures, slides, flips, and turns, congruent plane figures, and symmetry.

### • Unit 16 – Exploring Patterns

This unit discusses identifying, extending, and creating patterns, finding a pattern's missing piece, patterns that grow, and extending growing patterns.

### • Unit 17 – Exploring Length

This unit explores inches, feet, yards, centimeters, meters, and estimating length in both the US Customary and the Metric Systems. It also discusses finding perimeter and area, the difference between a shorter and longer length, and word problems having to do with length.

### • Unit 18 – Measure Weight, Mass, Capacity, and Temperature

This unit discusses using the correct tool for measuring, as well as measuring in ounces, pounds, grams and kilograms, cups, pints, quarts, gallons, liters, degrees Fahrenheit, and degrees Celsius.

### • Unit 19 – Exploring Fractions

This lesson covers fractions that describe just one of the equal parts of a whole, comparing these "one-equal-part" fractions, fractions that describe multiple equal parts of a whole, fractions that describe one whole, and fractions that describe parts of a group.

### • Unit 20 – Understanding Place Value

This unit covers ones, tens, and hundreds, identifying place value, the expanded form of three-digit numbers, and modeling numbers in different ways.

### • Unit 21 – Compare and Order Numbers II

This unit covers comparing and ordering 3-digit numbers, and counting by fives and tens.

### • Unit 22 – 3-Digit Addition

- **Unit 10 – Exploring Probability**

This unit explores certain or impossible, more likely, less likely, or equally likely events, and possible outcomes.

- **Unit 11 – Money I**

This unit explains the value of dimes, nickels, pennies, half dollars, and quarters. It provides practice counting money and using coins to show the same value with different combinations.

- **Unit 12 – Money II**

This unit covers comparing amounts of money, using money to buy objects, adding and subtracting money, making change, and the dollar.

This unit covers adding a multiple of 100, regrouping ones and tens in 3-digit addition, estimating 3-digit sums, and practicing 3-digit addition.

- **Unit 23 – 3-Digit Subtractions**

This unit covers subtracting a multiple of 100, regrouping tens and hundreds in 3-digit subtraction, estimating 3-digit differences, and practicing 3-digit addition and subtraction.

- **Unit 24 – Multiplication and Division**

This unit introduces multiplication and division, including skip-counting to find a total, the relationship between addition and multiplication, multiplying using an array, the commutative property of multiplication.

[Acellus Overview](#) | [Curriculum](#) | [Deployment](#) | [Support](#) | [Grant Funding](#) | [Impact](#)

#### Deployment Areas

Supplemental Instruction  
Special Education  
Response to Intervention  
SAT/ACT Exam Preparation  
End-of-Course Exam Prep

Credit Recovery  
English Language Learners  
Advanced Placement  
Summer School  
GED and Adult Education

#### Academy Info

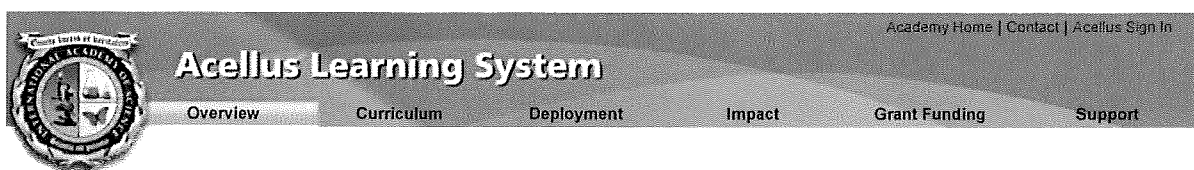
Academy Home  
Project Educate  
Education  
Make a Donation  
Volunteer Program

#### Contact Info

Phone: 816-229-3800  
[Send email](#)



Copyright © 2006-2013 International Academy of Science. All Rights Reserved.



## Grade 3 Math Curriculum

### • Unit 1 – Addition and Subtraction Basic Facts

This unit covers addition and subtraction, fact families, sums and differences, finding missing addends, sums from three addends, and story problems.

### • Unit 2 – Place Value: 3 Digits

This unit covers what digits are, place value with 3-digit numbers, their expanded form, and their word form. It also explores number lines, counting order, greater than and less than, odd and even numbers, and counting by tens, fives, and twos.

### • Unit 3 – Place Value: Thousands Period

This unit explores place value with 4-digit numbers and the thousands period, their expanded form, and their word form. It also discusses greater than and less than, and using organized lists and charts for logical reasoning.

### • Unit 4 – Rounding Numbers

This unit covers rounding to the nearest ten, hundred, thousand, and given place value, rounding 3-digit numbers to the nearest ten, and rounding 4-digit numbers to the nearest hundreds. It also discusses counting by 25s, 50s, 100s and 1000s, using benchmarks, and story problems having to do with rounding.

### • Unit 5 – Addition Skills

This unit covers the commutative, identity, and associative properties of addition, using parentheses with addition, doing mental sums with tens, hundreds, and thousands, and estimating sums for ten, hundreds, thousands, different place values, and compatible numbers. Adding compatible numbers and story problems having to do with estimating sums are also presented.

### • Unit 6 – Regrouping with Addition

This unit discusses 2-digit addition without regrouping, and 2-digit, 3-digit, and 4-digit addition with regrouping. It also discusses adding three, 2-digit addends, addition with different place values, using the guess and check method, choosing an addition method, and addition story problems.

### • Unit 7 – Subtraction Skills

This unit explores doing mental differences for tens, hundreds, and thousands, estimating differences for tens, hundreds, thousands, and compatible numbers, subtracting compatible numbers, and story problems for estimating differences.

### • Unit 8 – Regrouping with Subtraction

This unit discusses 2-digit subtraction without regrouping, and 2-digit, 3-digit, and 4-digit subtraction with regrouping. It also discusses finding differences across zeros, subtraction with different place values, checking subtraction with addition, comparing differences, odd or even sums and differences, giving

### • Unit 11 – Data, Graphs, and Probability

This unit discusses using tally and frequency tables for surveys, as well as pictographs, bar, line and circle graphs, line plots, mode and range, ordered pairs, probability of events, predicting outcomes, and fair and unfair games.

### • Unit 12 – Multiplication Basic Facts

This unit explains multiplication and delves into multiplying by the numbers 0 through 11.

### • Unit 13 – Multiplication Skills

This unit covers problem solving with tables, multiplication story problems, finding missing factors, multiplying with three factors, properties of multiplication, multiple-step story problems, and calculator multiplication.

### • Unit 14 – Division Basic Facts

This unit explains division and multiplication by the numbers 1 through 10, division rules for zero, and multiplication and division fact families.

### • Unit 15 – Division Skills

This unit presents division story problems, story problems requiring the student to choose the operation, and story problems that require the student to work backward. In addition, it discusses equations and expressions, finding the missing operation, order of operations, and calculator division.

### • Unit 16 – Geometry

This unit covers lines and angles, describing lines and angles, identifying polygons and solid figures, classifying triangles by angles, and classifying quadrilaterals. It also discusses circles, congruent figures, finding lines of symmetry, and relating objects to solid figures.

### • Unit 17 – Fractions

This unit explores fractions as part of a whole and as part of a group, finding fractions of amounts, understanding equivalent fractions, and comparing fractions. It also covers understanding mixed numbers, adding and subtracting like fractions, and doing story problems about fractions.

### • Unit 18 – Decimals

This unit describes tenths and hundredths as decimals, decimals with whole-number parts and their word forms, comparing decimals, decimals and fractions with money, and adding and subtracting decimals.

### • Unit 19 – Customary Units of Measurement

an exact answer or an estimate, choosing a subtraction method, and addition and subtraction story problems.

#### • Unit 9 – Telling Time

This unit covers reading a clock -- the hour and half hour, to the nearest five minutes, to the nearest minute, and to the nearest second. It also discusses different ways to say the same time, choosing a.m. or p.m., and elapsed time -- hours and minutes. It covers calculating time passage, naming the months of the year, reading calendars, and time zones.

#### • Unit 10 – Money

This unit explains counting pennies, nickles, dimes, quarters, half dollars, bills, and coins, and presents story problems about counting money. It also discusses and presents story problems about adding and subtracting money. Also included are calculating and counting change, and patterns in counting to the number 100.

This unit discusses length, weight, and temperature in customary units, measuring to the nearest half inch, comparing, finding perimeters, measuring and comparing capacity.

#### • Unit 20 – Metric Units of Measurement

This unit discusses length, area, volume, capacity, mass, and temperature in metric units.

#### • Unit 21 – Regrouping with Multiplication

This unit covers multiplying by tens and hundreds, estimating products, and regrouping and story problems for multiplying 2- and 3-digit numbers.

#### • Unit 22 – Regrouping with Division

This unit covers dividing multiples of 10, 100, and 1,000, estimating quotients, regrouping and story problems for dividing 2-digit numbers, checking division with multiplication, and story problems for tricky remainders.

[Acellus Overview](#) | [Curriculum](#) | [Deployment](#) | [Support](#) | [Grant Funding](#) | [Impact](#)

#### Deployment Areas

Supplemental Instruction  
Special Education  
Response to Intervention  
SAT/ACT Exam Preparation  
End-of-Course Exam Prep

Credit Recovery  
English Language Learners  
Advanced Placement  
Summer School  
GED and Adult Education

#### Academy Info

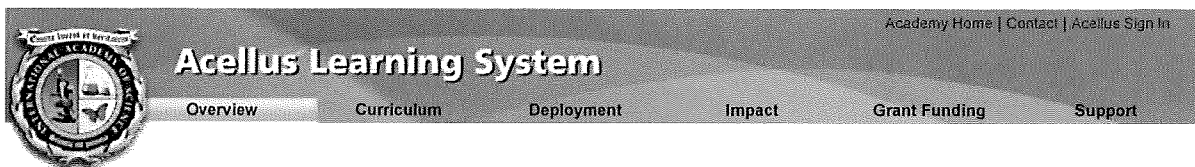
Academy Home  
Project Educate  
Education  
Make a Donation  
Volunteer Program

#### Contact Info

Phone: 816-229-3800  
Send email



Copyright © 2006-2013 International Academy of Science. All Rights Reserved.



## Grade 4 Math Curriculum

### • Unit 1 – Place Value

This unit covers the thousands and the millions periods, including their expanded and word forms. It also covers comparing and ordering numbers, and roman numerals. Story problems for comparing numbers are also discussed.

### • Unit 2 – Addition and Subtraction

This unit covers addition and subtraction: fact families, story problems, choosing a method, with different place values, and with regrouping (3- and 4-digits). Also included are 4-digit subtraction with zeros, and parentheses with and properties of addition.

### • Unit 3 – Rounding and Estimating Sums and Differences

This unit covers rounding in the ones, thousands, and millions periods, rounding to the nearest ten thousand and to the given place value. It also explores doing mental sums and differences, as well as estimating large and small sums and differences and compatible numbers. Over- and under-estimating are covered, along with exact answers versus estimates.

### • Unit 4 – Multiplication and Division Basic Facts

This unit covers multiplying and dividing by 0 through 12, along with fact families and story problems. Also included are properties of multiplication, expressions, equations, variables, order of operations, inequalities, and story problems for choosing the operation.

### • Unit 5 – Time and Temperature

This unit addresses telling time to the nearest minute and second, different ways to say the same time, rounding time, elapsed time, units of time, comparing units of time, temperature, reading a thermometer, finding a change in temperature, negative numbers, and comparing negative numbers.

### • Unit 6 – Regrouping with Multiplication

This unit covers doing mental math to find larger and smaller products, multiplying without regrouping, estimating products with rounding and with compatible numbers, multiplying 2-, 3-, or 4 digits by 1 digit, multiplying with zeros, multiplying by tens, and multiplying 2- and 3-digits with 2 digits. Also included are multiplication story problems and choosing a method for multiplying.

### • Unit 7 – Data and Graphs

This unit explains data and frequency tables, venn diagrams, finding range, mean, median, and mode. It defines line plots, double-bar graphs, pictographs, line graphs, and circle graphs. It also discusses reading and making bar graphs and using a coordinate grid.

### • Unit 8 – Regrouping with Division

### • Unit 9 – Fractions

This unit covers fractions and mixed numbers, including models, number lines, equivalent fractions, simplest form, comparing fractions with like denominators, with like numerators, and with unlike fractions, and comparing mixed numbers. It also includes ordering fractions, changing mixed numbers to improper fractions and vice versa, as well as adding and subtracting like fractions, larger like fractions, mixed numbers, and fractions with unlike denominators. Multiplying whole numbers by fractions and fractions story problems are also discussed.

### • Unit 10 – Decimals

This unit discusses decimals, their expanded and word forms, using decimals with a number line, relating decimals with fractions and with mixed numbers, ordering and rounding, estimating decimal sums and differences, adding and subtracting decimals, equivalent decimals and fractions, story problems for decimals and comparing decimals, and tricky decimal differences.

### • Unit 11 – Money

This unit covers counting money, relating money with decimals and fractions, adding tenths and hundredths mentally with fractions and decimals, rounding to the nearest dollar, calculating and counting change, adding, subtracting, multiplying, and dividing with fractions, and money story problems.

### • Unit 12 – Geometry

This unit discusses points, lines, and rays, including labeling. It also covers labeling, measuring, classifying, and finding unknown angles. It also covers labeling lines, as well as discussing polygons, classifying polygons, classifying triangles by sides and by angles, and classifying quadrilaterals. Additionally, it explores circles, similar and congruent figures, symmetry, solid figures, faces, edges, and vertices.

### • Unit 13 – Measurement

This unit discusses customary linear units, including changing and comparing them, and measuring fractional parts of inches. It also covers customer weight units, including changing them. It further explores metric linear units, including changing and comparing them, and measuring centimeters and millimeters. Also included are metric mass units, changing metric mass units, and measurement story problems.

### • Unit 14 – Capacity, Perimeter, Area, and Volume

This unit covers customary capacity units, including smaller units and changing units, perimeter of squares and rectangles, area of squares, rectangles and rectangular sections, volume models and measurements, and metric capacity units, including changing them.

### • Unit 15 – Probability and Number Patterns

This unit describes doing larger and smaller mental quotients, and doing mental division with missing numbers, estimating quotients with rounding, with compatible numbers, and with larger quotients, dividing 2- and 3-digit numbers by 1 digit, and dividing 2-, 3-, and 4-digit numbers by 2 digits. It also discusses dividing with remainders, dividing with zeros, checking division with multiplication, choosing a method, and adjusting quotients, as well as story problems for understanding remainders and choosing an operation, and division story problems with a map.

This unit covers predicting outcomes, probability as a fraction, mathematical and experimental probability, tree diagrams, divisibility rules for 2, 5, 10, and 25, factors, multiples, prime and composite numbers, number patterns, line plots with fractions, working backward and multi-step story problems.

[Acellus Overview](#) | [Curriculum](#) | [Deployment](#) | [Support](#) | [Grant Funding](#) | [Impact](#)

#### Deployment Areas

Supplemental Instruction  
Special Education  
Response to Intervention  
SAT/ACT Exam Preparation  
End-of-Course Exam Prep

Credit Recovery  
English Language Learners  
Advanced Placement  
Summer School  
GED and Adult Education

#### Academy Info

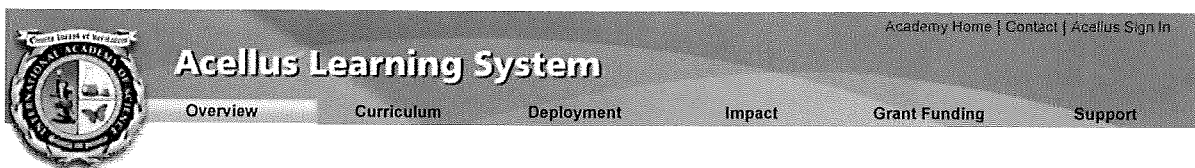
Academy Home  
Project Educate  
Education  
Make a Donation  
Volunteer Program

#### Contact Info

Phone: 816-229-3800  
[Send email](#)



Copyright © 2006-2013 International Academy of Science. All Rights Reserved.



## Grade 5 Math Curriculum

### • Unit 1 – Positive Numbers

This unit covers addition, subtraction, multiplication, and division, place value for billions and decimals, comparing and ordering whole numbers and decimals, and patterns and decimals

### • Unit 2 – Addition and Subtraction

This unit discusses doing mental math using the commutative and associative properties, rounding whole numbers and decimals, estimating sums and differences, doing addition, subtraction, and multi-step story problems, and adding and subtracting whole numbers and decimals.

### • Unit 3 – Multiplication

This lesson explores properties of multiplication, doing mental multiplication, estimating products, multiplying by 1- and 2-digit numbers and by greater numbers, using exponents, and multiplication story problems.

### • Unit 4 – Division Part 1

This unit covers dividing tens and hundreds, estimating quotients, using reasonableness, model and compute division problems, dividing by 1-digit numbers, quotients with zeros, factors, prime and composite numbers, and division story problems.

### • Unit 5 – Division Part 2

This unit discusses mental division, estimating quotients with 2-digit divisors, dividing by tens, quotients with 1- and 2-digits and with decimals, estimating and dividing greater numbers, and multiple-step and missing- or extra-information story problems.

### • Unit 6 – Algebraic Variables and Expressions

This unit covers algebraic variables and expressions, patterns and expressions, the distributive property, order of operations, and solving problems by acting them out.

### • Unit 7 – Multiplication and Division

This unit discusses multiplying decimals by a power of ten, multiplying whole numbers by decimals, estimating products with whole numbers and decimals, multiplying decimals, dividing decimals by powers of ten and by whole numbers, estimating quotients for decimals and whole numbers, division with decimal divisors and dividends, and multiple step story problems.

### • Unit 8 – Two-Dimensional Shapes

This unit covers simple geometry concepts and measuring and classifying angles. It also explores polygons, triangles, quadrilaterals, translations, reflections, rotations, congruence, symmetry, pentomino puzzles, and correct or incorrect generalizations.

### • Unit 10 – Add and Subtract Fractions and Mixed Numbers

This unit covers adding and subtracting fractions with like denominators and with unlike denominators, and adding and subtracting mixed numbers, as well as least common multiples.

### • Unit 11 – Multiply Fractions and Mixed Numbers

This unit discusses multiplying a fraction by a whole number, multiplying fractions, multiplying mixed numbers, dividing a whole number by a fraction, and story problems with fractions.

### • Unit 12 – Length, Perimeter, and Area

This unit explores customary and metric units of length, perimeter, finding the area of squares, rectangles, parallelograms, and triangles, and the circumference of a circle, and story problems for perimeter and area.

### • Unit 13 – Three-Dimensional Figures

This unit discusses solids, nets, surface area and different views of solid figures, volume, area and volume of irregular shapes and solids, and solving problems using models and pictures.

### • Unit 14 – Measurement, Time, and Temperature

This unit covers capacity in customary and metric units, weight and mass, converting customary and metric units, elapsed time, temperature, and using a table to solve problems.

### • Unit 15 – Equations and Inequalities

This unit explains solving equations with addition, subtraction, multiplication, and division, graphing inequalities on the number line, equations and patterns in tables and using equations to solve problems.

### • Unit 16 – Percents and Ratios

This unit covers ratios, as well as percents, how percents relate to fractions and decimals, percents of whole numbers, solving percent problems using tables and patterns, outcomes, probability fractions, making predictions, and solving difficult problems using simpler problems.

### • Unit 17 – Graphs

This unit covers positive and negative integers, ordered pairs, distances between points, graphs of equations, and solving story problems by working backwards.

### • Unit 18 – Data and Graphics

This unit discusses surveys and data collection, representing data with bar graphs and picture graphs, line graphs, stem-and-leaf plots, histograms, circle graphs, mean, median, mode, range, and using different types of graphs.

**• Unit 9 – Fraction Introduction**

This unit offers a basic understanding of fractions, how they relate to division, fractions greater than one, writing equivalent fractions and fractions in simplest form, comparing and ordering fractions, greatest common factors, changing fractions to decimals, the number line connection between fractions and decimals, and using benchmark fractions to estimate amounts.

[Acellus Overview](#) | [Curriculum](#) | [Deployment](#) | [Support](#) | [Grant Funding](#) | [Impact](#)

**Deployment Areas**

Supplemental Instruction  
Special Education  
Response to Intervention  
SAT/ACT Exam Preparation  
End-of-Course Exam Prep

Credit Recovery  
English Language Learners  
Advanced Placement  
Summer School  
GED and Adult Education

**Academy Info**

Academy Home  
Project Educate  
Education  
Make a Donation  
Volunteer Program

**Contact Info**

Phone: 816-229-3800  
[Send email](#)



Copyright © 2006-2013 International Academy of Science. All Rights Reserved.