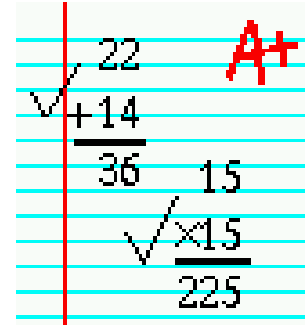


POWER STANDARDS

Kindergarten Mathematics

By the end of the year each student will...



Number Sense & Operations

- relate numbers to objects (1 to 1 correspondence).
- recognize, write & order numbers from 0 to 10.
- add/subtract to and from 10 using objects and pictures.
- compare 2 sets to determine whether they have same, fewer, or more.

Patterns

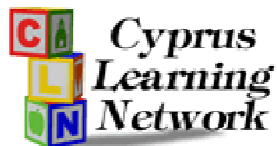
- sort and classify objects by 1 characteristic (color, size, shape, number, and other attributes).
- count orally from 1 to 20.
- count backwards from 10 to 0.
- identify and continue a pattern (red blue, red blue, red...).

Geometry

- name and draw circles, triangles, rectangles, and squares.
- use and demonstrate positional words (i.e. on, over, under, above).

Measurement

- identify and sort pennies, nickels, dimes and quarters as units of money.
- compare two objects (longer, shorter; heavier, lighter; larger, smaller; more, less).
- name the days of the week in order.

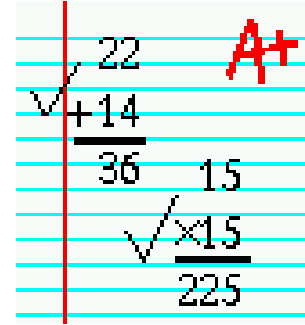




POWER STANDARDS

1st Grade Mathematics

By the end of the year each student will...



Number Sense & Operations

- recognize and write numbers from 0 to 100.
- know number in ones and tens columns up to 99.
- know zero represents an empty set or a placeholder.
- identify numbers that are one more or one less from 1 to 99.
- know greater than, less than, or equal to when comparing sets or numbers.
- add and subtract to 12 using zero.

Patterns

- sort and classify objects by 1 or 2 characteristics (color, size, etc.).
- identify and predict patterns (ABC, ABC, AB...).
- skip count by 2's to 20, 5's and 10's to 100.

Geometry

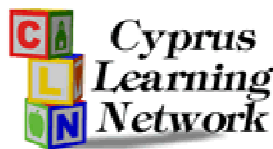
- name, draw, and sort: circles, triangles, and rectangles including squares.
- use and demonstrate words to describe distance (closer, farther).
- divide geometric shapes into equal parts (halves, fourths).

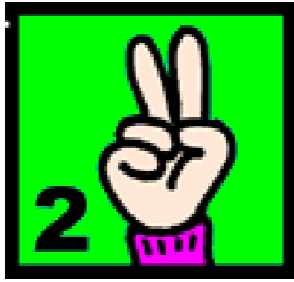
Measurement

- name tools used for measuring length, weight, volume, temperature, and time.
- name and identify the value of penny, nickel, dime, and quarter.
- read and tell time to the nearest hour on a face clock.
- name the seasons and months of the year in order.
- determine the value of money using the same coins up to 25 cents (5 nickels = 25 cents), (14 pennies = 14 cents), (2 dimes = 20 cents).

Data Organization

- interpret data using tables, tally marks, pictographs, and bar graphs.

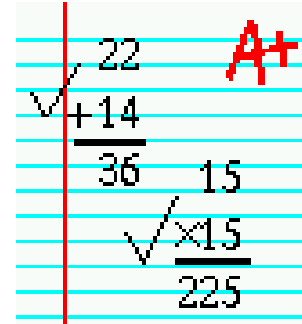




POWER STANDARDS

2nd Grade Mathematics

By the end of the year each student will...



Number Sense & Operations

- recognize and write numbers from 0 to 1000.
- know number in ones, tens and hundreds columns up to 999.
- use expanded notation up to 999 ($900 + 90 + 9$).
- compare 1 more/less, 10 more/less, up to 100.
- order 4 numbers less than 100 (least to greatest, greatest to least).
- add and subtract using both one and two digit numerals.
- name and write fractions: halves, thirds, and fourths.
- know fact families up to 18 ($3+2=5$, $2+3=5$, $5-2=3$, and $5-3=2$).

Patterns

- sort, classify, and label objects by three or more characteristics (color, shape, size, etc).
- identify, create, and label repeating & growing patterns (12, 123, 1234...).
- skip-count by 2's, 3's, 5's, and 10's up to 100, and relate it to repeated addition.

Geometry

- name, draw, sort, and compare: circles, triangles, and parallelograms.
- identify spheres, cones, and cylinders.
- determine line of symmetry of an object.

Measurement

- using measuring tools compare, estimate, and order objects according to their length, weight, or volume.
- read time to the nearest half-hour on a face clock.
- use a calendar to determine day and date of the week.
- identify the name and value of a penny, nickel, dime, quarter, and dollar.
- determine the value of money using combinations of coins up to one dollar.

Data Organization

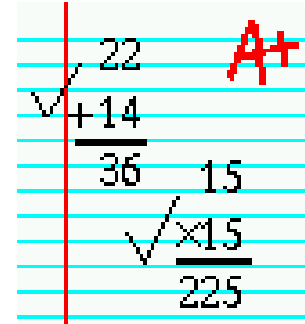
- collect, sort, organize, and interpret data using pictographs, tally marks, bar graphs, and organized tables.



POWER STANDARDS

3rd Grade Mathematics

By the end of the year each student will...



Number Sense & Operations

- recognize and write numbers from 0 to 10,000.
- know number in ones, tens, hundreds and thousands columns up to 9999.
- use expanded notation up to 9999 ($9000 + 900 + 90 + 9$).
- know odd/even numbers.
- compare 10 more/less, 100 more/less.
- use symbols to compare greater than ($>$), less than ($<$), and equal to ($=$).
- add and subtract up to and including 3 digit numbers with and without regrouping (carrying and borrowing).
- learn multiplication facts up to tens.
- use fact families to demonstrate multiplication and division ($5 \times 2 = 10$, $2 \times 5 = 10$, $10 \div 5 = 2$, and $10 \div 2 = 5$).
- estimate and round numbers.
- name, write and compare fractions: halves, thirds, fourths, sixths, and eighths.

Patterns

- solve equations involving equivalent expressions ($6 + 4 = \square + 7$).
- understand arranging of 3 or more addends does not change the sum ($1 + 2 + 3 = 2 + 3 + 1$).

Geometry

- understand and determine line of symmetry and congruency on parallelograms and circles.
- identify angles as acute, right, or obtuse.
- use coordinates for maps and graphs.
- name, draw, sort, and compare parallelograms including rhombuses (kites).

Measurement

- estimate and measure in customary and metric measurement in length, weight, capacity and temperature.
- add and subtract money to \$5.00 or less.
- read time to the nearest quarter hour on a face clock.

Data Organization

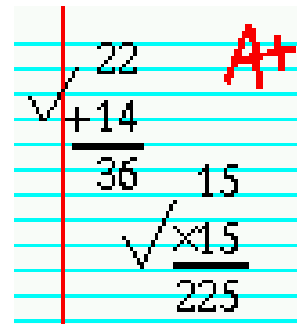
- make predictions based on data (probability).



POWER STANDARDS

4th Grade Mathematics

By the end of the year each student will...



Number Sense & Operations

- recognize and write numbers from 0 to 100,000.
- know number in ones, tens, hundreds, thousands, and ten thousands columns up to 99,999.
- use expanded notation up to 99,999 ($90,000 + 9000 + 900 + 90 + 9$).
- compare 100 more/less, 1,000 more/less, up to 10,000.
- order and compare whole numbers and decimals to tenths on a number line.
- know multiplication facts up to twelves.
- multiply 2 digits by 2 digits up to 30.
- use a variety of strategies to solve story problems.
- divide 2 digit by 1 digit, including remainders.
- name, write and compare fractions: halves, thirds, fourths, fifths, sixths, eighths, and tenths.
- relate fractions to decimals.

Patterns

- solve equivalent equations ($6X2 = \square X3$ or $6X\square = 9+9$).
- demonstrate the distribution of multiplication over addition using a rectangular array ($8X14 = 8$ rows of 10, 8 rows of 4).
- solve equations involving 2 operations ($4X3+2 = \square$).

Geometry

- identify, draw, compare, and describe: parallel lines, intersecting lines, quadrilaterals including rectangles, and trapezoids.
- understand and determine congruency, similarity, and lines of symmetry on polygons.
- identify slide (translation), flip (reflection), and turn (rotate) using manipulatives.

Measurement

- recognize, estimate, and measure in both metric & customary units of length, volume, and weight.
- read time to the nearest minute identifying AM and PM on a face clock.
- add and subtract money to \$20.00 or less.
- find perimeter and area of rectangles.

Data Organization

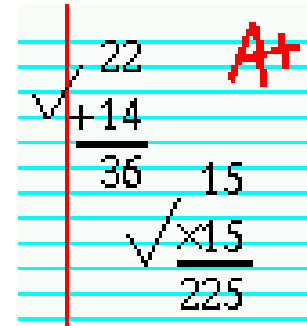
- collect, read, represent, and interpret data from tables, graphs, charts, surveys, and observations.



POWER STANDARDS

5th Grade Mathematics

By the end of the year each student will...



Number Sense & Operations

- recognize and write numbers from 1/100 to 1,000,000.
- know number in ones, tens, hundreds, thousands, ten thousands, and hundred thousands columns up to 999,999.
- use expanded notation up to 999,999 ($900,000 + 90,000 + 9,000 + 900 + 90 + 9$).
- identify place values from hundredths to one million.
- know 2 to 20 as prime or composite numbers.
- know exponents up to 3 (i.e. $8 = 2 \times 2 \times 2 = 2^3$).
- determine if a number is divisible by 2, 3, 5, 9 and/or 10 using the rules of divisibility.
- add, subtract, and multiply fractions and decimals.
- select and write number sentences that can solve a 2 step problem.
- multiply 3 digit by 2 digit.
- divide 3 digit by 1 digit divisor.
- order and compare whole numbers, fractions, mixed numbers, and decimals.
- write commonly used fractions as decimals and percents.
- name, write, and compare fractions: halves, thirds, fourths, fifths, sixths, eighths, tenths, and twelfths.
- understand equivalent fractions.

Patterns

- analyze patterns in lists or tables.
- solve 1 step equations using a single variable ($4+x=7$).
- recognize and apply associative $(2+1)+3=2+(1+3)$, communicative $2 \times 3=3 \times 2$, and distributive $4(3+2)=4 \times 3 + 4 \times 2$ properties.

Geometry

- identify and describe equilateral, isosceles, scalene, right, acute, and obtuse triangles.
- identify, write, and graph an ordered pair for a point in the 1st quadrant.

Measurement

- make conversions within the same measurement system.
- measure angles with protractors.
- calculate elapsed time within an AM or PM period.

Data Organization

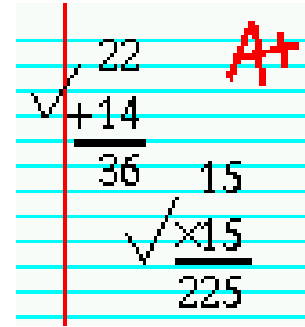
- collect, compare, and display data using line plots, bar graphs, pictographs, circle graphs, and line graphs.
- identify the minimum, maximum, range, mode, median, and mean for sets of data.
- perform simple experiments in probability; predict and express the outcomes in a variety of methods.



POWER STANDARDS

6th Grade Mathematics

By the end of the year each student will...



Number Sense & Operations

- add, subtract, multiply, and divide using multi-digits, fractions, decimals, and integers.
- recognize and write numbers from 1/1000 to 1,000,000,000.
- identify prime numbers, composite numbers, factors GCF, and multiples LCM.
- express numbers in expanded, scientific, and exponential notation.
- name, write, and compare fractions: halves, thirds, fourths, fifths, sixths, eighths, tenths, twelfths, and sixteenths.
- write equivalent fractions and identify simplest form.
- change fractions to decimals, and decimals to percentages.
- use a variety of mental math techniques (estimate and round).

Patterns

- apply the order of operations: PEMDAS (Parenthesis, Exponent, Multiplication & Division, and Addition & Subtraction).
- solve two-step equations with whole numbers and single variable ($4x + 2 = 14$).

Geometry

- identify lines, segments, rays, and midpoints.
- explain the difference between parallel and perpendicular, and convex and concave.
- identify the parts of a circle and calculate area and circumference.
- identify faces, vertices, and edges of three dimensional objects.
- identify, write, and graph an order pair for a point in all 4 quadrants.

Measurement

- calculate the area and perimeter of triangles, rectangles, and parallelograms.
- measure, contrast, and compare length accurately in customary and metric systems.

Data Organization

- collect, organize, create, and analyze and compare data to create graphs (bar graphs, line graphs, frequency tables, stem & leaf, circle graphs, scatter plots, line plots, etc.).
- recognize that changing the scale influences the appearance of a display of data.
- learn to think (if the answer looks reasonable, it probably is).