1. PLACE VALUE & NUMBER THEORY

*word numbers through hundred trillion
billion (do not cycle)
Roman numerals (do not cycle)
divisibility
prime and composite
prime factorization
factor trees – start with a number other
          than the smallest factor
exponents
*scientific notation
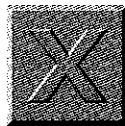*base 2 – teach from a place value chart
*order of operations
*square roots

2. NUMBER ORDER & INTEGERS

rounding to 10, 100, and 1,000
>, <, =
*integers on a number line
*opposite integers
*comparing integers
*adding integers
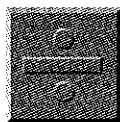*subtracting integers
*multiplying integers
*dividing integers

3. ADDITION & SUBTRACTION

*addition properties, terms, facts
*subtraction properties, terms, facts
*addition w/ 2, 3, 4, 5, & 6 digits
*subtraction w/ 2, 3, 4, 5, & 6 digits
add/subtract equations
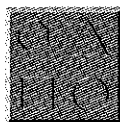missing addends
estimating
adding and subtracting money
counting change

4. MULTIPLICATION

properties, terms, facts
common multiples
triple digit times single digit
two digit times a two digit
three digit times three digit
money by two digit number
missing factors
estimating products
exponents
*four digit by four digit
*five digit by five digit

5. DIVISION

properties, terms, facts
one, two, and three digit divisors
dividing money
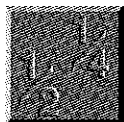estimating quotients
averaging with remainders
*four digit divisor

6. GEOMETRY

perimeter and area
*area of a parallelogram
*area of a triangle
*area of a circle
volume of a cube
*volume of a cylinder
surface area
shapes and solids
symmetry
congruent figures
similar figures
line, line segment, ray, endpoint
parallel, intersecting, perpendicular
angles - rays, vertex, acute, obtuse, right
circles - diameter, radius, chord, central angle
types of triangles
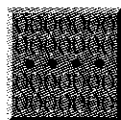polygons - sides, vertices, diagonals

*new concepts

7. GEOMETRIC CONSTRUCTIONS

protractors
compass
measuring and constructing angles
*construct a perpendicular bisector
*bisect an angle
*construct a regular hexagon
*construct an equilateral triangle
*construct a right triangle
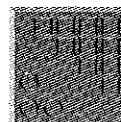*construct a square
*construct a parallelogram

8. FRACTIONS

equivalent fractions
greatest common factor
reducing fractions
compare and order fractions
add and subtract fractions with common
  denominators
mixed numbers
improper fractions
least common multiple
add and subtract fractions with unlike
  denominators
add and subtract mixed numbers without
  regrouping
rename mixed numbers
add mixed numbers with renaming fractions
more renaming
subtracting mixed numbers with common
  denominators - borrow from the whole
  numbers
subtracting mixed numbers with unlike
  denominators - borrow from the whole
  numbers
multiply fractions and a whole number
multiply two fractions
multiply mixed numbers
*simplify before you multiply
reciprocals
*divide a whole number by a fraction
*round and estimate with fractions
*divide a fraction by a whole number
*divide by a mixed number

9. DECIMALS

fractions to decimals
*word numbers to hundred thousandths
compare & order decimals
add decimals (horizontal and vertical)
subtract decimals
estimate decimals
multiply a decimal by a whole number
multiply two decimals
divide decimal by a whole number
*extend quotient to tenths, hundredths,
thousandths
*interpret the remainder
*divide by a decimal
*divide and multiply by 10, 100, 1,000
*repeating decimals

10. RATIO

write simple ratios
multiply to find equal ratios
divide to find equal ratios
cross products
*use cross products to solve for n
*ratio as a percent

11. MEASUREMENT

standard and metric linear equivalent
standard and metric liquid equivalent
standard and metric weight equivalent
temperature reading and understanding
Fahrenheit and Celsius
millimeter, centimeter, decimeter, meter
decameter, hectometer, kilometer

12. GRAPHS

bar
line
pictographs
circle
coordinate graphs
comparing graphs
*mean, mode, median
*graphing in all four quadrants

13. EQUATIONS

addition
subtraction
multiplication
division
*writing equations for word problems
*equal ratios

14. PERCENT

understand the concept
finding a percent of a number
percent and decimals
percent and fraction
discount and sales tax

15. APPLICATIONS

writing checks
*budgeting
*banking
*savings
*understanding interest
computing interest
comparison buying
installment buying
using charts and tables

16. PROBLEM SOLVING

choosing an operation
reasonable or unreasonable answers
too much information/ too little information
multiple step problems
understanding remainders
make an organized list
draw a picture
find a pattern
*use a chart, table, menu, schedule

*new concepts

*new concepts