



Math - Grade 3 2016 - 17

Learning Objectives :
Number
Number Review from Grade 2 – up to 100 : read, write, and model numbers and review place value and rounding up to 100
Read, write, and model numbers, using the base 10 system, to 1,000
Count, compare and order numbers to 1,000
Estimate quantities to 1,000
Review and automatically recall multiplication tables up to 10 x 10 and division fact table up to 100
Automatically recall basic addition and subtraction facts
Model addition and subtraction equations to 1,000 (with and without regrouping, first horizontally, then vertically with carrying and borrowing)
Use mathematical vocabulary and symbols of multiplication and division: multiply, divide, product, quotient, x, :
Use and describe multiple strategies to solve addition, subtraction, multiplication and division problem
Read, write and model multiplication problems up to 3 – digit times 1 – digit numbers
Read, write and model division problems up to 1 – digit into 3 – digit numbers with and without remainders
Reasonably estimate answers: rounding and approximation
Select and explain an appropriate method for solving a problem
Introduce the Roman Numerals: I, V, X, L, C, D, M
Solve real-life word problems using each of the basic operations up to 1,000 - up to three steps
Pattern and Functions
Analyse patterns in number systems up to 1,000



Recognize, describe and extend more complex patterns in numbers
Identify patterns and rules for multiplication and division: $4 \times 3 = 12$, $3 \times 4 = 12$, $12 : 3 = 4$, $12 : 4 = 3$
Solve real-life word problems using pattern and functions up to 1,000 - up to three steps
Measurement
Estimate, measure, label and compare using formal methods and standard units of measurement: length, mass, time, temperature, and volume
Select appropriate tools and units of measurement
Describe measures that fall between numbers on a measuring scale: $3 \frac{1}{2}$ kg, between 4 cm and 5 cm
Estimate, measure, label and compare perimeter
Model addition and subtraction using money
Converting money (Euro to Cent)
Comparing two or three amounts of money
Read and write the time using intervals as small as 1 minute, on 12-hour clocks (full hour, half past, quarter past, quarter to, analogue clocks)
Measurement length: km, m, cm, mm; explain dm
Measurement length: Convert mm to cm and dm to m
Measurement weight: kg, dag, g
Measurement weight: Convert g to dag and dag to kg
Measurement volume: mL, L
Measurement time: Convert years to days, hours to minutes
Elapsed time: full and half hour
Real-life (2- and 3-steps) word problems with all kinds of measurement
Shape and Space
Sort, describe and model regular and irregular polygons: triangles, hexagons, trapezoids
Create symmetrical patterns, including tessellation



Identify lines and axes of reflective and rotational symmetry
Understand an angle as a measure of rotation by comparing and describing rotations and directions: whole turn, half turn, quarter turn, north, south, east, and west on a compass rose
Locate features on a grid using coordinates
Identify, describe, and sort 3-D shapes according to their properties: (faces, surfaces, edges and vertices) for sphere, cube, cuboid, pyramid, cone, cylinder
Solve real-life word problems using “shape and space” - up to three steps
Data Handling
Discuss, compare and interpret sets from data that has subsets using tree, Carroll, Venn and other diagrams
Design a survey, process and interpret the data
Collect and display data in a bar graph and interpret results
Use the scale on the vertical axis of a bar graph to represent large quantities
Find, describe and explain the mode in a set of data and its use
Understand the purpose of a database by interpreting the data answer questions and solve problems
Use probability to determine mathematically fair and unfair games and to explain possible outcomes
Solve real-life word problems using data handling - up to three steps