Math Competencies

Grades 1-8

MATH | GRADE 1
DAKSHATA SOOCHI

Code	Competencies
MAT101	Students can match/identify/collect/group objects and pictures on the basis of physical similarities like-shape, size, sliding, rolling, etc. and extend given simple patterns
MAT102	Students can count (objects, pictures and symbols) read, write and organize numbers in ascending and descending order (1 to 5)
MAT103	Students can count (objects, pictures and symbols) , read, write and organize numbers in ascending and descending order (0 to 9)
MAT104	Students can add any two given numbers without carry over (sum not exceeding 9) with the help of pictures or symbols and solve simple one-line problems
MAT105	Students can subtract any number from another (using digits 0 to 9) without carry back with the help of pictures and symbols
MAT106	Students can make groups of ten and count in groups for objects, pictures and symbols
MAT107	Students can count (objects, pictures and symbols), read, write, organize numbers in ascending and descending order (0 to 20)
MAT108	Students can add and subtract objects, pictures and symbols (sum up to 20)
MAT 109	Students can identify currency notes and coins up to Rs 50 and add with the help of coins (sum not exceeding 9)
MAT110	Students can count (objects, pictures and symbols), read, write and organize numbers in ascending and descending order (0 to 50)
MAT111	Students can add and subtract objects, pictures, symbols (sum up to 50)
MAT112	Students can tell the sequence of events using words such as first, later, before/after, and estimate the time spent in an event as less or more
MAT113	Students can estimate size/length/distance/etc using words like smaller and bigger, near -far, long-short, etc.
MAT114	Students can measure length in non-standard units like finger, palm, foot, steps, etc.

MATH | GRADE 2
DAKSHATA SOOCHI

Code	Competencies
MAT201	Students can read , write and organise numbers in ascending-descending order up to 70
MAT202	Students can recognise basic shapes with their indigenous names
MAT203	Student can read, write and organise numbers in ascending-descending order and use words like small, big, next and before (up to 99)
MAT204	Students can add any two given numbers with and without carry over (not exceeding 99) using vertical and horizontal procedures
MAT205	Students can subtract a number from another (using numbers up to 99) with and without carry back using vertical and horizontal procedures
MAT206	Students can solve daily life problems with the help of addition (verbally and one-line problem statements) (using numbers up to 99)
MAT207	Students can solve daily life problems with the help of subtraction (verbally and one-line problem statements) (using numbers up to 99)
MAT208	Students can identify and represent value of units, tens and hundreds
MAT 209	Students can read, write and organise numbers in ascending-descending order (up to 110)
MAT210	Students can estimate length, capacity and weight using words such as more-less/far-near/heavy-light/longer-shorter etc.
MAT211	Students can measure length and capacity with non-standard units
MAT212	Students can tell the name of days in a sequence and estimate time in days
MAT213	Students can identify currency notes up to 50 and can make different combinations of notes and coins for a particular amount upto Rs 50
MAT214	Student can make simple charts (likes-dislikes) and respond to simple questions (verbally) basis the available data related to their life

MATH | GRADE 3
DAKSHATA SOOCHI

Code	Competencies
MAT301	Students can divide pictures in two identical halves with a line
MAT302	Students can recognise and expand simple repeated and non-repeated patterns with semi abstract (pictures etc.) and abstract symbols (numbers etc.)
MAT303	Students can read, write , compare and organise numbers in ascending-descending order with the help of place value (up to 999)
MAT304	Student can add and subtract three digit numbers in different ways with carry over and carry back
MAT305	Students can solve simple daily life problems related to addition and subtraction with single operation at a time
MAT306	Students can measure length in metres and centimetres, weight in kilogram and capacity in non standard units
MAT307	Students can multiply any two digit numbers with one digit (initially as repeated addition and then with the help of tables up to 10)
MAT308	Students can identify 2D shapes with their names (triangle, square, rectangle, circle) and recognise their features like arms, corners, angles etc
MAT309	Students can divide numbers up to 99 by a single digit number (initially as repeated subtraction and then with the help of table) without reminder
MAT310	Students will be able to read clock and calculate time in hours (12.00 hrs)
MAT311	Students can identify sequence of events in hours, days, and months using a calendar
MAT312	Students can read and write dates and calculate duration of events with the help of a calendar
MAT313	Students can use tally marking to record data, interpret pictorial representation and can draw simple inferences e.g., which is more, which is less
MAT314	Students can add and subtract small amounts of money and solve simple one line daily problems related to money

MATH | GRADE 4
DAKSHATA SOOCHI

Code	Competencies
MAT401	Students can understand and expand given non repeated patterns of semi- abstract pictures/symbols and abstract symbols (numbers)
MAT402	Students can read, write and calculate dates and solve daily life simple problems with the help of calendar
MAT403	Students can calculate intervals of time and use am/pm to tell time
MAT404	Students can read, write, compare and expand any number up to 5 digits by applying concept of place value
MAT405	Students can identify objects using names of 3D shapes (cube, cuboid, cylinder, cone, sphere)
MAT406	Students can multiply and divide 3 digit numbers with 2 digit numbers using tables up to 15 and can divide 3 digit numbers by one digit number
MAT407	Students can solve daily life problems by applying multiplication, division, addition and subtraction
MAT408	Students can solve daily life simple problems related to money and spendings/savings/etc.
MAT409	Students can measure length, weight and capacity using standard units; and solve daily life simple problems based on them; and convert between units (e.g. meters and centimeters, kilometer, grams and kilograms, liters and mililiters)
MAT410	Students can represent and identify following fractions : 1/2,1/4, 1/3, 3/4,4/4 as shaded part and write fractions for the given shaded part
MAT411	Students can calculate and solve daily life simple problems of perimeter (with the help of thread etc.)
MAT412	Students can calculate and solve daily life simple problems of area (with help of grid)
MAT 413	Students can complete half figures and identify miror images using the concept of symmetry
MAT414	Students can record, interpret and represent simple data using tally marks, bar graphs (without scale) and tabulation

MATH | GRADE 5
DAKSHATA SOOCHI

Code	Competencies
MAT501	Students can identify and expand given complex patterns of semi-abstract symbols and abstract symbols (numbers)
MAT502	Students can identify and classify the following angles and represent the same by tracing and drawing: right, obtuse and acute angle
MAT503	Students can solve daily life problems of area with and without grid and with repeated addition of rectangular shapes
MAT504	Students can solve daily life problems of perimeter with repeated addition of rectangular shapes
MAT505	Students can read, write and represent fractional numbers and mixed fractions
MAT506	Students can identify multiples, common multiples and factors
MAT507	Students can recognise and write decimals as part of 1/10 and 1/100 with the help of pictorial representation
MAT508	Students can convert decimals into fractional numbers (1/10, 1/100)
MAT509	Students can convert fractional numbers (1/10, 1/100) into decimals
MAT510	Students can identify and classify symmetrical and non-symmetrical shapes
MAT511	Students can record, interpret and represent data using tally marks, bar graph (without scale) and tabulation
MAT512	Students can apply addition and subtraction together to solve daily life problems
MAT513	Students can apply either multiplication or division to solve daily life problems
MAT514	Students can solve daily life simple problems related to volume, length and weight

MATH | GRADE 6
DAKSHATA SOOCHI

Code	Competencies
MAT601	Students can read, write, compare and explain any natural number in different ways and perform all four operations on them
MAT602	Students can identify lines of symmetry, reflection and rotational symmetry
MAT603	Students can explain & represent whole numbers on number line and perform all four operations on them
MAT604	Students can use divisibility rules for 2,3,4,5,6,8,9,10 and 11
MAT 605	Students can factorize any two digit numbers and calculate HCF and LCM of up to three numbers
MAT606	Students can identify, differentiate and explain fundamental properties of 2D figures
MAT607	Students can describe core properties of 3D shapes on the basis of edges, faces and vertices
MAT608	Students can explain relationship of integers with other types of numbers, represent them on number line, and perform operations (+/-) on them
MAT609	Students can represent fractions pictorially and vice versa and on a number line
MAT610	Students can convert (mixed/proper/improper) and compare (like and unlike) fractions and add and subtract fractional numbers to solve daily life problems
MAT611	Students can represent decimal numbers pictorially and on number line, convert decimal to fractions (vice-versa) and add and subtract decimal to solve daily life problems
MAT612	Students can collect & organize relevant data (using tally marking, tabulation and symbols with scale) and represent the data using bar diagram
MAT613	Students can calculate area of rectangular shapes and perimeter of any shape (except circle) using formula
MAT614	Students can convert any statement into algebraic expressions and simple equations
MAT615	Students can compare two numbers as ratio & two ratios as proportion and can solve daily life problems related to ratio-proportion
MAT616	Students can construct line segments, angles & circles and bisect line segments and angles using geometrical tools

MATH | GRADE 7
DAKSHATA SOOCHI

Code	Competencies
MAT701	Students can multiply and divide integers and explain its operational properties
MAT702	Students can multiply and divide fractions and decimal numbers and can use it to solve daily life problems
MAT703	Students can calculate mean, median, mode and range of any data set and can create comparative bar diagram on scale; draw inferences from given data and graphs
MAT704	Students can calculate possibility and probability on the basis of given data
MAT705	Students can form and solve simple equations and use them to solve daily life problems
MAT706	Students can draw and describe properties of lines and angles
MAT707	Students can categorise and describe properties of triangles
MAT708	Students can describe criteria of congruent triangles
MAT709	Students can convert fractions, decimals, percentages and ratios in to one another
MAT710	Students can calculate profit-loss and percentages and use these to solve daily life problems
MAT711	Students can explain properties of rational numbers; represent them on number line and perform different operations on them
MAT712	Students can construct parallel lines, angles and triangles
MAT713	Students can solve complex problems related to perimeter and area of single and combined figures (triangles, quadrilateral and circle)
MAT714	Students can identify like terms, factors and polynomials; perform addition and subtraction on them
MAT715	Students can identify and write repeated multiplication as exponents and explain & use laws of exponents
MAT 716	Students can identify and construct linear symmetry

MATH | GRADE 8
DAKSHATA SOOCHI

Code	Competencies
MAT801	Students can explain operational properties of rational numbers and find out rational numbers between two given rational numbers
MAT802	Students can create, balance and solve linear equations
MAT803	Students can identify and explain different types of quadrilaterals
MAT804	Students can construct quadrilaterals on the basis of sides, angles and diagonals
MAT805	Students can organize, classify, interpret and represent data through bar graphs, histograms and pie charts
MAT806	Students can draw and compare any diagram or graph (including linear graphs) on the given data
MAT807	Students can calculate square and square roots and cube and cube roots through multiple ways
MAT808	Students can calculate profit-loss-discount and percentage to solve daily life problems
MAT809	Students can calculate simple and compound interest using different ways
MAT810	Students can add, subtract and multiply algebraic expression (up to polynomials) and use identities to solve algebraic expressions
MAT811	Students can compare 2D and 3D shapes and describe properties of 3D shapes
MAT812	Students can calculate perimeter and area (of rectilinear figures including circle), surface area and volume (including cylinder) to solve daily life problems using formulae
MAT813	Students can expand numbers in standard form using exponents; and can explain laws of exponents
MAT814	Students can calculate direct and inverse proportions and can solve daily life problems on them
MAT815	Students can divide algebraic expressions (up to polynomial) using factorization and identities
MAT816	Student can explain divisibility of 4,5,6 9 and 10 and use it to solve problems