Topic	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8
Numbers	- Numbers to 99999 *Note: The book for this grade uses the numbers ١، ٢، ٣، ٤ - representing numbers in place value table - writing numbers in details (using place value) and words - comparing and ordering numbers - from five digits - even and odd numbers	- Natural numbers - reading and writing numbers in millions *note: numbers are written the same as in English (1, 2, 3) - comparing natural numbers (millions) - ordering natural numbers(millions)	- Natural numbers - adding, subtracting and multiplying natural numbers	- Natural numbers - writing numbers using digits and words - using place value table	Rational numbers operations on large numbers
Operations	adding numbers from five digits division writing a division sentence and	adding and subtracting natural numbers adding and subtracting numbers (in millions)	Addition and subtraction of natural numbers Multiplication of natural numbers	Integers (addition and subtraction) Multiplication Division Rational numbers Operations on Rational numbers	(Addition and Subtraction Multiplication solving World problem

determining dividend, divisor and quotient finding answers of division problems relating multiplication and division writing multiplication statements and related division facts related to multiplication and division skip counting distributing multiplication to addition multiplication without carrying multiplication with carrying* multiplying three numbers using property of ( ) multiplying tens(multiplying tens by "adding" zeros" kinds of multiplication (how many zeros in multiplying by tens, hundreds ..)	multiplying natural numbers divisibility rules for dividing by 2,3,5, 10 finding the rules of dividing two numbers	(Multiplication properties) The division of natural numbers Order of Operations exponents **Numerical formula for force (exponent)** **Square number and cube number** **Order of Operations**	Rational numbers and cartesian plane exponents of rational numbers Rules of exponents Rules of the calculation of power Order of Operations Square roots	Factoring and simplifying an expression division Order of Operations World problems (in Arabic) exponents exponents of the number 10 ● rules on number 10

	kinds of division(how many zeros are present when dividing by tens, hundreds, etc) solving world problems division without reminder division on a one digit number with reorganizing the zeros in the answer and reminder				
Rounding numbers	rounding to the nearest tenth rounding to the nearest hundred	rounding natural numbers rounding natural numbers to a specific place	rounding up numbers Balancing natural numbers (comparing and contrasting)		
Fractions	representing fractions on the number line equivalent fractions comparing fractions comparing two fractions with one denominator double of the other denominator comparing a fraction with the number one ordering fractions	Fractions Comparing fractions (using similar denominators) ordering fractions writing a fraction as a mixed number writing a mixed number as a fraction adding and subtracting fractions Decimals decimals	Addition and subtraction of mixed numbers Multiplying fractions Dividing fractions Dividing mixed fractions Addition and subtracting of decimal numbers Multiplying decimal numbers Multiply a decimal number using a number of fractions		Standard decimal number format How do we move from the number 10 to the decimal and vice versa?

	subtracting a fraction from another where one denominator is double the other	writing parts of 10, 100, 1000 in a decimal forms using words to express parts of ten, hundred and one thousand comparing parts of ten, parts of hundred, adn parts of thousand. writing parts of expressing parts of ten,hundred, and thousand in words Reading and writing decimal numbers using place value table to determine the value of a number in different places the "detailed" expression of a decimal number writing a fraction as a decimal ordering decimals comparing two decimals adding and subtracting decimals multiplying a natural number with a decimal	multiplying decimals using fractions multiplying a decimal number with a normal number without using fractions Patterns of multiplication in numbers 10, 100, 100 Dividing decimals Dividing a decimal number by the numbers 10, 100, 1000		

		kinds of dividing a decimal number dividing a decimal over 10, 100, and 1000			
Rate and Ratio			**Ratio and proportionality Time Time units** **percentage Writing fractions in percentage format Writing decimal numbers in percentage format**	**ratio and proportionality** **Drawing scale Regular rate and movement percentage** Cross Multiplication Proportionality table	**Proportionality and graphical representation** Velocity **percentage**
Data Management	representing data by columns (bar graphs) answering questions related to a graph constructing bar graph steps of " drawing" constructing a bar graph Cartesian plain finding a point on a cartesian plain and writing and writing	graphing using lines cartesian plains reading points on cartesian plain representing points on a cartesian plain	Finding the Mean	Statistics and Probability Graphic representations bar graphs double bar graphs binary column chart histograms Pie/ circle graphs line graph (check if it is broken or continuous) scattered plot	Statistics (Data Management) Mean المتوسط الحسابي التقريبي Second, the approximate arithmetic mean الجدول التكراري وجدول الفئات Table repetition and table categorie التكرار المتجمع Repeated)(التراكمي aggregated frequency (more than) الصاعد

				Events and their possibilities two complementary events probability of an event	النازل Representing statistical data Representation of rectangles أعمدة columns
Patterning and algebra	patterns finding a pattern rule (e.g. adding two to a number)	-	**Algebraic expressions** **Expression of text in algebraic terms** **Calculate the value of an algebraic statement** **Equations** **Equation solutions** **Finding an equation solution**	Algebraic equations and equations Learn the algebraic expressions Solving equations	Equations and operations Solving equations Linear equations Equality and processes Equation synthesis Creating Equations (writing equations)
		factoring a number factoring a number to different number using a tree Least common multiplier	Factoring number to primary factors Rules of division on 2, 3, 4, 5, 10 القاسم المشترك الأكبرThe largest common divisor LCD Using factorization to find the largest common numbers of two or more The Least Common Multiplier LCM		

Symmetry, translation, and Rotation	designing reflected shapes	translation of similar shapes determining rotation of similar shapes (, rotation, ..)	Axial symmetry translating shapes across an access translation on a grid shifting a polygon on the grid Rotation	Central symmetry (reflection) Find the the reflection of a point axes and centre of reflection	Parallelogram and Translations Translating graphs A points image according a translation shape's image according to translation congruency in triangles
Measurement, length, mass, capacity, time	angles kinds of angles using a koos* " right angle triangle" to distinguish between between angles rectangle and properties drawing a rectangle square and its properties and drawing solving world problems distance and length measuring length and converting between measurement units calculating	measuring angles identifying different angles) obtuse, acute, right angle, straight) using a protractor length parts of a meter (metric units) conversion between measurement of length mass: calculating mass using milligram conversion between metric units of mass (grams) Mass: Kg, g, mg	lines التعامد و التوازي Perpendicular and parallel lines right- angle triangle special properties of two related angles (E.g. alternate angles) adjacent angles parallelogram Special cases: rectangle, diamond, square drawing a Parallelogram, area and perimeter of a parallelogram	Two parallel lines and one intersecting Move from quadratic a shape to a parallelogram -learning how to prove that a shape is a parallelogram parallelograms and reflection centres, lines of symmetry properties and area of a parallelogram, area spec Special cases: rectangle, diamond, particular, square	Triangles, rectangles and parallel rectangles Parallel to the side & bisectors of the middle of another side parallel lines and two intersecting lines points distance from a line three equal ratios (representation in geometry)

	measuing mass and converting between units measuign mass and converting between mass measuring capactiy and converting between units reading time and writing up to a minute reading time using and and 'to' (in Arabic)	calculating time (adding and subtracting two time periods)	Trapezoid Units of measurement of length, area and volume Calculating area Make a line segmentation	Measurement units	
Triangles and Circles		Triangle classifying triangle categorizing a triangle (sorting a triangle according to the length of its side) area of a triangle relationship between a circle's radius and diameter drawing a circle	Classification of a triangle measuring angles in a triangle Comparison of triangle types by length of sides identifying two similar shapes circumference of a circle Circle area	Triangles and Circles Classification of triangles sum of angles in a triangle Drawing a the triangle Drawing a circle that passes by a triangle vertices area of a Triangle area of a circle	Distinctive rectangles in a triangle middle of two sides in a triangle representing three equal ratios using a triangle proof of three equal rations parallel lines in a triangle Axis of side in a triangle

			Meaning of Pai and representing it with decimals		height of Triangle side and angle bisectors in a triangle a circle that passes a triangle vertices triangle circle passing the vertices of a right angle triangleسPythagorean theorem - the opposite مماس دائرة **a Point distance from the straight**
		3D shapes identifying shapes describing shapes constructing shapes -volume -measuring volume in units cubes -measuring volume of a rectangular prism Conversion between units for measuring volume	**triangular prism** **Prism-based cylinder**	**shapes** **Prisms** area of sides of a prism cylinders	pyramid and cones Volume of pyramids and cones