

Grade1 (4 classes per week)

Contents

(A) Number and Calculations

(1) Children should understand the meaning of number up to 20, and the meaning of addition and subtraction.

a) To count the number, to understand the composition, the order and size of the number, how to read and write, and the meaning of addition and subtraction.

b)

(2) Children should understand the meaning of the number up to 100, and the meaning of addition and subtraction.

a) To count the number, to understand the meaning of one-digit and two-digit numbers, the order and size of the number, how to read and write.

b) To add the multiple of ten to the two-digit numbers, to subtract the multiple of ten from the two-digit numbers, and to add the one-digit numbers to the two digit numbers, to subtract the one-digit numbers from two digit numbers by mental arithmetic. To solve two steps problem in addition and subtraction.

(B) Quantities and Measurements

(1) Children should be able to read clock

(2) To make out Yuan (unit of Chinese money), to calculate simple problem about a money

(C) Geometric Figures

(1) To recognize rectangular parallelepiped, cubes, circular cylinder, sphere viscerally

(2) To recognize rectangle, square, triangle, circle viscerally

(D) Applied problem

To solve relatively simple addition and subtraction in one step verbal problems

(E) Practical exercises

To choose concrete materials for daily life. For example, the number of students in a class, how it could make problem on the basis of distribution of the number in the graph

Tuitional requirement

(1) Through the counting the number of different things, children should be able to make the number abstraction progressively, classify the cardinal number and the ordinal number, understand the composition of the numbers up to ten, write the numbers accurately and finely.

(2) Children should know one or ten as a unit, understand the meaning of ones position and tens position, should count, read, write numbers up to 100 exactly. And children should understand composition of numbers up to 100 as a sum of multiple of ten and multiple of one, compare order or size of numbers.

(3) Children should know the terms of each part of expression expressed by addition and subtraction, and relationship between addition and subtraction. Children should understand addition of two one-digit numbers, and inverse subtraction in mental arithmetic. Children should understand how to add two-digit number to multiple of ten, and how to subtract one-digit number from two-digit number in mental arithmetic. And, children should solve two steps problems in addition and subtraction.

(4) Children should know the terms like =, <, >, and by using these terms, children should express size of numbers

(5) Children should read time, understand hour. Children should know that 1 yuan = ten jiao, 1 jiao = ten fen. Children should think good deal of yuan.

(6) Children should solve relatively simple one step verbal problems in addition and subtraction on the basis of contents of addition and subtraction. Children should know conditions and questions in problems, and make expression. And children should write the name of units in answer, and answer orally

(7) Children should be brought up good habitude, solving problem with a serious mind, calculating exactry, writing finely

(8) Through the practice, children should have a good experience to know the close relationship between mathematics and daily life.

Grade 2 (5 classes par week)

Contents

(A) Number and Caluculations

(1) Addition and subtraction two two-digit numbers.

To formularise addition and subtraction. To solve two step probrems in addition and subtraction.

(2) Multiplication and division

(a) To know multiplication in entry-level. How to read multiplication table. To formularise multiplication.

(b) To know division in ently-level. To find quotient in muntiplication table. To formularise division. To understand the meaning of remainder. To solve two steps problem.

(3) How to read and write number up to 1000.

To count number. Hundreds position, thousands position, ten thousands position. To know how to read and write. To compare size of numbers.

(4) Addition and Subtraction

Addition and subtraction. successive addition. To check sums, or difference by using the idea of addition.

(5) Calculation including four operations

To know the order of operation, first multiplication and division, next addition and subtraction. To solve two steps problems. To know parenthesis.

(B) Quantities and Measurements

(1) To know the meaning of hours, minutes, seconds

(2) To know the meaning of meters, decimeters, centimeters, and simple calculation.

(3) To know the meaning of kilogram

(C) Geometric Figures

(1) To know the meaning of line and segment at ently-level.

(2) To know the meaning of angle and right angle at ently-level.

(D) Applied problem

(1) To solve the one step verbal problems in addition and subtraction.

(2) To solve the one step verbal problems in multiplication and divition.

(3) To solve comparatively simple two step verbal problems

(E) Practical exercises

To chouse concret materials for daily life. For examples, how it could make problem on the basis of condition of payment for a week in account book.

Tuitional requirement

(1) Children should know the meaning of hundreds, thousands, ten thousands as a unit of cardinal number, and relationship between adjacent numbers in decadal system. Children should know the order of the digit up to 10000, could write and read numbers, and compare the size of numbers.

(2) Children should know how to add and subtract on a piece of papers. Children should be able to solve relatively simple problems in addition by making expression. Children should be able to do addition and subtraction with two two-digit numbers, whose sum is less than one hundred, exactory by using mental arithmetic. And children should be able to do addition and subtraction with multiple of hundreds and thousands, do addition and subtraction with numbers, which is a composition of hundreds and tens, and multiple of hundreds or tens in mental arithmetic , and check sums by using commutative law in addition, and differences by using addition. Children should be trained to check answers progressively.

(3) Children should know the meaning of multiplication and division, the names of each part in expressions, the relationship of multiplication and division. Children should know the origin of how to read multiplication table, memorise exactly, be able to find products and quotients by using multiplication table. Children should be able to do division, whose divisor and quotient is a one-digit number, with remainder

(4) Children should know the order of operations, should be able to solve two steps problems, know parenthesis.

(5) Children should know the unit such as meter, decimeter, centimeter. Children should know the actual length of one meter, one centimeter. Children should know that one meter is equivalent to ten decimeter, one decimeter is equivalent to ten centimeter. Children should be able to calculate the length of measurements.

(6) Children should know kilogram as the unit of weight, should build the concept of weight of one kilogram.

(7) Children should know the units of time such as a hour, minute, second. Children should know that one hour is equivalent to sixty minutes, one minute is equivalent to sixty seconds. Children should built the concept of time such as a hour, minute, second. Children should get the habit of being punctual.

(8) Children should know lines and segments at ently-level, should be able to mesure the length of segment and be able to draw segments whose lenth is within the integers, whose unit is only centmeter.

(9) Children should know the meaning of angle and right angle, should know the name of angle. Children should be able to determine whether right angle or not by using triangle ruler.

(10) Children should be able to solve one step problems in addition, subtraction, multiplication, and division. Children should solve the simple two step verbal problems divided into some steps to make equation.

(11) Through activity, children should be trained to get a good sense of mathematics.

Grade 3

Contents

(A) Number and Calculations

(1) Multiplication and Division with one-digit numbers

To understand multiplication whose multiplier is one-digit number (Multiplicand is less than three-digit number), and in the case of multiplier is zero. To understand division whose dividend is one-digit number. To confirm quotient by using multiplication.

(2) Multiplication and Division with two-digit numbers

(a) To understand multiplication whose multiplier is two-digit number (Multiplicand is less than three-digit number), To understand how to calculate simple multiplication in the case of last place of multiplier is zero. To confirm multiplication. To understand division whose dividend is two-digit number.

(b)

(3) Mixed Operation including addition, subtraction, multiplication, division.

To solve two steps problems. To understand how to use parenthesis

(4) To understand fraction at entry-level

To understand meaning of fraction, how to read and write fractions. To compare size of fraction in the figures. To understand simple reduction to common denominators in addition and subtraction.

(B) Quantities and Measurements

(1) To understand meaning of kilometer and millimeter, and simple calculation.

(2) To understand meaning of ton and gram, and simple calculation.

(3) To know the unit of areas.

(C) Geometric Figures

(1) To understand the characteristic of rectangle and square. To understand length of perimeter of rectangle and square.

(2) To recognize parallelogram.

(3) To understand meaning of area area of rectangles and squares.

(D) Applied problem

To understand relationship of numerical quantity which are often used. To solve two steps verbal problems.

(E) Practical exercises

To perform activity with concrete material around daily life. For example, children should analyze, classify and arrange, record the weather forecast for ten days.

Tuitional requirement

(1) Children should know how to multiply numbers less than 1000 by one-digit numbers, and should comparatively be able to calculate skilfully. Children should be able to confirm quotient by using product(including remainder).

(2) Children should know how to multiply and divide with two-digit numbers on paper,

should be able to do multiplication and division skillfully. Children should be able to confirm product by commuting position of multiplication. Children should be able to do multiplication and division with one-digits and two-digit numbers by mental arithmetic, whose product is less than 1000. In the case of multiplier and divisor are multiple of tens, Children should do mental arithmetic. Children should be able to solve simple problems.

(3) Children should know the order of operations including addition, subtraction, multiplication, division. Children should be able to solve three steps problem, should know how to use parenthesis.

(4) Children should know simple fraction, should be able to read and write. Children should be able to compare size of fraction with same denominators. Children should be able to do simple addition and subtraction of fractions with same denominators.

(5) Children should know the units of length kilometer and millimeter. Children should know that one kilometer is equivalent to one thousand meter, one centimeter is equivalent to ten millimeter. Children should know the units of weight ton and gram, should know that one ton is equivalent to one thousand gram, one kilogram is equivalent to one thousand gram. Children should be able to do simple calculation concerning length and weight.

(6) Children should understand the characteristics of rectangle and square. Children should be able to draw rectangles and squares on plotting paper. Children should understand the meaning of perimeter, should find the perimeter of rectangle and square by calculation.

(7) Children should understand the meaning of area, should know the units of area square meter, square decimeter and square centimeter. Children should understand the meaning of square meter, square decimeter and square centimeter. Children should understand the formulas to find area of rectangles and squares.

(8) Children should understand the popular mathematical relations. Children should

be able to solve two step verbal problems.

(9) Through activity, children should be trained to get a good sense of mathematics.

Grade 4 @(5 classes per week)

Contents

(A) Number and Calculations

(1) How to read and write up to 100 million

To know the one hundred thousand, one million and ten million as units of cardinal numbers. To know relationship between adjacent numbers in decadal system. To know how to read and write up to 100 million. To know approximate number based on ten thousand.

(2) Addition and Subtraction

(a) To know how to add and subtract round numbers such as ten, one hundred.

(b) To know relationship between each terms of expressions in addition and subtraction. To find the value of unknown X

(3) Multiplication and Division

(a)*****.*****. To know how to calculate if the final number of dividend and divisor is zero.

(b) To know how to calculate if multipliers is close to multiple of ten, or hundred.

(c) To know relationship between each terms of expression in multiplication and division. To find the value of unknown X

(4) Estimating large numbers. Abacuse and Calculator.

(5) Calculation using four operations

To know the braces. To solve three steps problems

(6) Relationship between four operations with integers and rule of calculation

(a) To know natural numbers and integers, how to read and write of decimal notation system.

(b) To know the meaning of four operations. To know interactions of addition and subtraction, multiplication and division. To know dividable division by integers and division contain remainder

(c) To know the rules of calculation

(7) Meanings, characteristics, addition and subtraction of decimal fraction.

(a) To know the meanings and characteristics of decimal fraction. To compare the size of decimal fraction. To know the size of decimal fraction is changed in connection with the changing of the decimal point. To know the approximate value of the decimal fractions.

(b) To know addition and subtraction of the decimal fractions by applying the rule of calculation of integers.

(B) Quantities and Measurements

(1) How to record Year, month, day, normal year, intercalary year, century and 24 hours.

(2) Angle.

(3) Units of area.

(C) Geometric Figures

(1) The measurement of straight lines. Measurement of distance by using tools, feet and visual measurement.

(2) To draw segment, right angle, acute angle, obtuse angle, straight angle, perigon, straight line and parallel line.

(3) Characteristics of triangle. Sum of the interior angles of triangle.

(D) Statistics at entry-level

To organize simple data. To understand meaning of statistical tables, average. To find average.

(E) Applied problem

To solve two step verbal problems and three step verbal problems.

(F) Practical exercises

To organize activity concerning something around us. For example, children set up an research group , calculate research budget for one person in vacation.

Tuitional requirement

(1) Children should know the units hundred thousand, one million, ten million, should understand rule of decadal system. Children should understand the meaning of natural numbers and integers. Children should be able to find approximate value by using round off based on requirement of problems.

(2) Children should be able to do addition and subtraction with multiple of ten thousand. Children should be able to do addition and subtraction with two numbers which combined hundred and ten by mental arithmetic. Children should be able to do addition and subtraction with numbers which close to ten and hundred according to circumstances. Children should understand the relationship between each terms of the expressions in addition and subtraction, should be able to find the value of unknown X based on this relationship.

(3) Children should be able to confirm product by commuting position of multiplication. *****. If multiplier and divisor is multiple of one hundred, children should be able to multiply and divide by mental arithmetic. Children should understand the relationship between each terms of the expressions in multiplication and division, should be able to find the value of unknown X based on this relationship.

(4) Children should understand meaning of four operations, interrelationship between

addition and subtraction. Children should receive educational campaign about dialectic materialism. Children should be able to solve some problems by through the use of calculus. Children should be able to do calculation associated with four operations including brace.

(5) Children should understand the meaning and characteristic of decimal fractions. Children should be able to do addition and subtraction on paper, and should be able to do it by mental arithmetic skilfully.

(6) Children should understand the meaning of units hour, month and day, should know how many days there are in a year, intercalary year, each month. Children should be able to inscribe times by using 24-hour system.

(7) Children should understand the meaning of segment and angle, should know the size of anlge, should be able to draw angle by using protractor. Children should understand the meaning of perpendicular lines and parallel lines, should be able to draw perpendicular lines, parallel lines, rectangle and square. Children should understand the characteristics of triangle, should know the sum of the interior angles of triangle.

(8) Children should know the units of area such as hectare, square kilometer. Children should be able to measure length of straight lines on ground by using instruments.

(9) Children should understand the meaning of simple statistical table. Children should be able to collect and organize date. Children should understand the meaning of average, should be able to find value of average. Trough statistical materials, children should be convinced achievements of socialist system.

(10) Children should be able to solve two step and three step verbal problems.

(11) Trough answers and calculation of problems, children should be trained to confirm results of calculations, to get behavior to be responsible.

(12) Through activitys, children should be trained ability to discover problems in daily life by using mathematical knowledge, and should be trained mathematical literacy.

Grade 5 (5 classes per week)

Contents

(A) Number and Calculations

(1) Numbers which are dividable by integers

To know characteristics of numbers which are divisible by 2, 5, 3. To know odd and even numbers, prime numbers and numbers without prime numbers. To know the table of prime numbers up to 100. To be able to do prime factorization. To be able to find divisors and multiple, common divisor and common multiple, greatest common divisor and least common multiple

(2) Multiplication and division of decimal fractions

(a) To know multiplication and division, approximate value of product and quotient, nonterminating decimals. To extend the rule of multiplication to decimal fraction.

(b) Four operations of the decimal fractions within three step problems.

(3) To calculate large numbers by calculators. To search for pertinent rules.

(4) Meanings and characteristics of fractions.

To know meanings and units of fraction. To compare size of fractions. To know relationship between fraction and division. To know proper fractions, improper fraction and mixed fraction. To know characteristics of fractions. To know reduction and reduction to common denominator. To know conversion between fraction and decimal fraction.

(5) Addition and subtraction of decimal fractions

To know meanings of addition and subtraction of the decimal fractions. To know how to calculate addition and subtraction without improper fraction. To extend the rule of addition to fraction. To add and subtraction include fraction and decimal fraction.

(B) Algebra

To express numbers by using letters for variables. To solve verbal problems by writing equations.

(C) Quantities and Measurements

(1) The units of area

(2) *****

(D) Geometric Figures

(1) Characteristics of parallelogram and trapezoid. Area of triangle and trapezoid. Combined figure

(2) Characteristics of rectangular solid and cube. Surface area of rectangular solid and cube. Meaning of volume. Volume of rectangular solid and cube.

(E) Statistics

Collecting, grouping and arrangement of data. Simple statistical table. To find value of average based on collecting data.

(E) Applied problem

*****. To solve three step verbal problems.

(F) Practical exercises

To organize activity according to actual conditions in society. For example, children research payment of city water, electricity and gas for ten families in a month. Children make mathematical problems concerning about amount of production for ten

farm families.

Tuitional requirement

(1) Children should know meanings of numbers which are dividable by integers, divisors and multiple, prime numbers and numbers without prime numbers, should understand relationship between them. Children should understand meanings of characteristics of numbers which are divisable by 2,5,3. Children should be able to do prime factorization within two-digit numbers. Children should be able to find divisors and multiple, common divisor and common multiple, greatest common divisor and least common multiple

(2) Children should be able to do multiplication and division of decimal fractions on paper, should be able to do it by mental arithmetic. Children should be able to find approximate value of product and quotient by using rouding off. Children should be able to calculate four operations of the decimal fractions within three step problems.

(3) Children should understand meanings and characteristics of fractions. Children should be able to compare size of fractions, should be able to do reduction and reduction to common denominator. Children should be able to do conversion between fraction and decimal fraction. Children should understand meanings of addition and subtraction of fraction , and be able to calculate it skilfully. Children should be able to do four operations certainly, should be able to do addition and subtraction of fraction by mental arithmetic.

(4) Children should be able to express common relationship, rule of calculations and formulas by using letters for variable. Children should understand meanings of equations, should be able to write equations.

(5) Children should understand meaning of common units and convert of units.

(6) Children should understand characteristics of parallelogram and trapezoid. Children should understand formula to find area of parallelogram and triangle.

(7) Children should understand characteristics of rectangular solid and cube, should be able to find surface area of rectangular solid and cube. Children should understand meaning of volume, should know units of volume such as cubic meter, cubic decimeter, cubic centimeter, liter and milliliter. Children should understand formulas to find volume of rectangular solid and cube.

(8) Children should be able to do collecting, grouping and arrangement of data, should be able to make simple statistical table. Children should be able to find value of average based on collecting data. Through realistic data, or collecting, grouping and arrangement of data, children should be trained to love one's country and socialism.

(9) Children should be able to solve three step verbal problems. Children should be able to solve verbal problems by making equation. Children should be able to solve concrete problems in daily life through the use of mathematical knowledge.

(10) Through activities, children should be trained ability to discover problems in daily life by using mathematical knowledge, and should be trained mathematical literacy.

Grade 6 (5 classes per week)

Contents

(A) Number and Calculations

(1) Multiplication and division of fraction

(a) To know the meaning of multiplication of fractions. To extend rule of multiplication to fractions. Inverse number. To know the meaning of division of the fraction

(b) To know the meaning of division of fractions.

(2) Four operations of fractions

To be able to calculate four operations of fractions

(3) Percentage

To know the meaning of percentage, and how to write percentage. To know the conversion of percentage, fraction and decimal fraction.

(B) Ratio and Proportional

To know the meanings and characteristics of ratio. To be able to find ratio by calculation. To know the quantity of proportion and inverse proportion.

(C) Geometric Figures

(1) To know the meaning of circles and circle ratio. To be able to draw circles. To find the circumference and area of a circle. To know the meaning of quarter sector. To know the meaning of axisymmetric figures.

(2) To know the meaning of cylinders. To find surface area and volume of cylinders. To know the meaning of cones. To find volume of cones. To know the meaning of spheres. To know the meaning of radius and diameter of a spheres.

(D) Statistics

(1) Statistical table.

(2) Bar graphs, line graphs and circular graphs

(E) Applied Problems

To solve verbal problems including construction problems by using four operations of fraction. Actual use of percentage, for example germination rate, examination pass rate, interest, tax charge. *****. Distribution according to proportion

(F) Practical exercises

To organize activity according to actual conditions in society, for example, To draw plane view of bed room.

(G) Arrangement and Review

Tuitional requirement

(1) Children should understand the meaning of multiplication and division of fractions, should be able to do addition and subtraction of fractions, and should be able to do it by mental arithmetic. Children should be able to solve problems including four operations of fractions within three step problems

(2) Children should understand the meaning of percentage, should know the application of average, and should be able to do calculations concerning about average.

(3) Children should understand the meanings and characteristics of ratio. Children should be able to find ratio by calculation and should be able to simplify ratio. Children should understand meaning of proportion and inverse proportion. Children should be able to determine whether proportion or inverse proportion. Through the teaching of proportion, Children should receive educational campaign about dialectic materialism.

(4) Children should understand the meaning of circles, should be able to draw circles. Children should understand the meaning of formula to find circumference and area of a circle. Through the using of historical material about circle ratio, children should receive patriotic education.

(5) Children should know the meaning of cylinders and cones, should be able to find surface area and volume of cylinders and cones.

(6) Children should be able to make statistical table accurately. Through the analysing statistical tables, children should study about nation.

(7) Children should be able to solve verbal problems about fraction and percentage within two step problems. Children should be able to solve verbal problems by using

knowledge of ratio. Children should understand scale size on maps.

(8) Through activity, children should understand relationship between mathematics and society, and application of mathematics.

(9) Through systematization, arrangement, reviewal, children should understand mathematics which have been learned in elementary school more strongly. Children should select a simple way of solution according to situation reasonably, should be able to solve actula problems in daily life by using knowledge which have been learnd.