



Singapore Maths Innovative Learning Experience (SMILE International)

Grade 5 Content List

Grade 5

Build on knowledge learnt in Grade 4 and pick up new techniques on tables, model diagrams and more, to solve real life word problems. See and extend application into areas of Rate, Ratios and Percentage. Plenty of practice opportunities to break down problems into simpler components in Fractions. With this base knowledge gained, your child can level up to Grade Six confidently.

Content List

Whole Numbers

Title	Synopsis
Lesson 1	Identify number patterns in number sequence.
Lesson 2	Solving word problems involving the four operations.
Lesson 3	Using "Guess and check" concept to solve a word problem.
Lesson 4	Using "Constant difference" concept to solve a word problem.
Lesson 5	Practice using "Constant difference" concept to solve a word problem.
Worksheet 1	Homework for Lessons 1 to 5.
Lesson 6	Using "Work backwards" concept to solve a word problem.
Lesson 7	Practice using "Work backwards" concept to solve a word problem.
Worksheet 2	Homework for Lessons 6 and 7.
Lesson 8	Using the "Guess and check with assumption" concept to solve a word problem.
Lesson 9	<i>Practice using "Guess and check with assumption" concept to solve a word problem.</i>
Lesson 10	Using the "Guess and check with assumption" concept to solve a word problem.
Lesson 11	Practice using the "Guess and check with assumption" concept to solve a word problem.
Worksheet 3	Homework for Lessons 8 to 11.
Quiz 1	Recap of Lessons 1 to 11.
Lesson 12	Using "Constant total" concept to solve a word problem.
Lesson 13	Practice using "Constant total" concept to solve a word problem.
Worksheet 4	Homework for Lessons 12 and 13.
Lesson 14	Using "Constant part" concept to solve a word problem.
Lesson 15	Practice using "Constant part" concept to solve a word problem.
Worksheet 5	Homework for Lessons 14 and 15.
Lesson 16	Using "Total changed" concept to solve a word problem.
Lesson 17	Practice using "Total changed" concept to solve a word problem.
Worksheet 6	Homework for Lessons 16 and 17.
Quiz 2	Recap of Lessons 12 to 17.
Lesson 18	Solving word problems that have two given relationships.
Lesson 19	Practice solving word problems that have two given relationships.
Lesson 20	Practice solving word problems that have two given relationships.

Worksheet 7	Homework for Lessons 18 to 20.
Lesson 21	Solving a word problem that has three given relationships.
Lesson 22	Practice using simultaneous concept to solve a word problem.
Worksheet 8	Homework for Lessons 20 and 22.
Quiz 3	Recap of Lessons 18 to 22.
Lesson 23	<i>Using "Excess-shortage" concept to solve a word problem.</i>
Lesson 24	<i>Practice using "Excess-shortage" concept to solve a word problem.</i>
Worksheet 9	Homework for Lessons 23 and 24.
Lesson 25	<i>Using "Excess-excess" concept to solve a word problem.</i>
Lesson 26	<i>Practice using "Excess-excess" concept to solve a word problem.</i>
Worksheet 10	Homework for Lessons 25 and 26.
Lesson 27	<i>Using "Shortage-shortage" concept to solve a word problem.</i>
Lesson 28	<i>Practice using "Shortage-shortage" concept to solve a word problem.</i>
Worksheet 11	Homework for Lessons 27 and 28.
Quiz 4	Recap of Lessons 23 to 28.

Fractions

Title	Synopsis
Lesson 1	Division of a proper fraction by a whole number.
Lesson 2	Multiplication of a proper fraction and a proper / improper fraction.
Lesson 3	Multiplication of an improper fraction and an improper fraction.
Lesson 4	Multiplication of a mixed number and a whole number.
Lesson 5	Addition and subtraction of mixed numbers
Lesson 6	Addition and subtraction of proper fractions
Lesson 7	Conversion between fractions and decimals.
Lesson 8	Write fractions and decimals as percentages and vice versa
Lesson 9	Making equal the "part" of the fraction and identifying the "whole" of the fraction.
Lesson 10	Practice solving a word problem on equal fractions.
Worksheet 1	Homework for Lessons 1 to 10.
Lesson 11	Comparing one fraction to another fraction in order to solve an equal fraction problem.
Lesson 12	Practice comparing one fraction to another fraction in order to solve an equal fraction problem.
Worksheet 2	Homework for Lessons 11 and 12.
Lesson 13	Making the numerator of fractions the same in order to compare the denominator for an equal fraction problem.
Lesson 14	Practice making the numerator of fractions the same in order to compare the denominator for an equal fraction problem.
Quiz 1	Recap of Lessons 9 to 14.
Lesson 15	Subtracting fractions with different denominators in order to find out remainder.
Lesson 16	Practice subtracting fractions with different denominators in order to find out remainder.
Lesson 17	Drawing the branching for remainder concept in a fraction word problem.
Lesson 18	Practice drawing the branching for remainder concept in a fraction word problem.
Worksheet 3	Homework for Lessons 15 to 18.
Quiz 2	Recap of Lessons 15 to 18.
Lesson 19	Finding the proportion of 3 subjects in relationship to one another.
Lesson 20	Finding the proportion of 3 subjects in relationship to one another.

Worksheet 4	Homework for Lessons 19 and 20.
Quiz 3	Recap of Lessons 19 and 20.

Rate

Title	Synopsis
Lesson 1	Reading rate from charts.
Lesson 2	Solving word problems on rate.
Worksheet 1	Homework for Lessons 1 and 2.
Quiz 1	Recap of Lessons 1 and 2.
Lesson 3	Solving a rate problem involving volume.
Lesson 4	Practice solving a rate problem involving volume.
Worksheet 2	Homework for Lessons 3 and 4.
Quiz 2	Recap of Lessons 3 and 4.
Lesson 5	Using inverse rates concept to solve a word problem.
Lesson 6	Practice using inverse rates concept to solve a word problem.
Worksheet 3	Homework for Lessons 5 and 6.
Quiz 3	Recap of Lessons 5 and 6.
Lesson 7	Solving word problems involving direct proportion.
Lesson 8	Using direct proportion to solve a word problem.
Lesson 9	Practice using direct proportion to solve a word problem.
Worksheet 4	Homework for Lessons 7 to 9.
Quiz 4	Recap of Lessons 7 to 9.

Ratio

Title	Synopsis
Lesson 1	Express a ratio in its simplest form.
Lesson 2	Identify and write equivalent ratio.
Lesson 3	Finding the ratio of two or three given quantities.
Lesson 4	Find one quantity given the other quantity and their ratio.
Lesson 5	Using "Constant part" concept to solve a word problem between two ratios.
Lesson 6	Practice using "Constant part" concept to solve a word problem between two ratios.
Worksheet 1	Homework for Lessons 1 to 6.
Lesson 7	Using "Constant total" concept to solve a word problem between two ratios.
Lesson 8	Practice using "Constant total" concept to solve a word problem between two ratios.
Worksheet 2	Homework for Lessons 7 and 8.
Lesson 9	Using "Constant difference" concept to solve a word problem between two ratios.
Lesson 10	Practice using "Constant difference" concept to solve a word problem between two ratios.
Lesson 11	Using "Constant difference" concept to solve a word problem between two ratios.
Lesson 12	Practice using "Constant difference" concept to solve a word problem between two ratios.

Lesson 13	Using "Constant difference" concept to solve a word problem between two ratios.
Lesson 14	Practice using "Constant difference" concept to solve a word problem between two ratios.
Worksheet 3	Homework for Lessons 9 to 14.
Lesson 15	Using "Total changed" concept to solve a word problem between two ratios.
Lesson 16	Practice using "Total changed" concept to solve a word problem between two ratios.
Worksheet 4	Homework for Lessons 15 and 16.
Quiz 1	Recap of Lessons 1 to 16.

Percentage

Title	Synopsis
Lesson 1	Understanding the use of the percentage symbol (%).
Lesson 2	Learn about discount, cost price and selling price.
Lesson 3	Practice solving a word problem on percentage discount.
Worksheet 1	Homework for Lessons 1 - 3.
Lesson 4	Learn about principal amount and percentage interest.
Lesson 5	Practice solving a word problem on percentage interest.
Worksheet 2	Homework for Lessons 4 and 5.
Quiz 1	Recap of Lessons 1 to 5.
Lesson 6	Solving up to 2 step word problems involving percentage.

Geometry

Title	Synopsis
Lesson 1	Learn about the Cartesian coordinate plane.
Lesson 2	Practice questions on Cartesian coordinate plane.
Worksheet 1	Homework for Lessons 1 and 2.

Statistics

Title	Synopsis
Lesson 1	Interpret average as "total amount divided by number of items".
Lesson 2	Word problem involving average.
Lesson 3	Solving 3 step word problems involving average with different total values.