Mathematics for Elementary School
Grade 6, One-Year Instructional Plan

1st Trimester			
Month	Unit	# of periods	Instructional contents
April (15)	**[Volume 1]** **1. Multiplication and Division of Fractions** p. 4-6	3	◎ Meaning of a fraction multiplied by a whole number and its method of calculation ◎ Meaning of a fraction divided by a whole number and its method of calculation
	2. Multiplication of Fractions p. 7-15	11	◎ Meaning of multiplying by a fraction and its method of calculation ○ A product becomes smaller than multiplicand when the multiplicand is multiplied by a proper fraction (<1). ◎ Meaning of decimal calculation involving the second relationship of ratio (A = B x p). If B is the base quantity, A is the quantity to be compared, and p is the value of ratio. The quantity to be compared can be found by the base quantity multiplied by how many times as much as whenever the value is expressed as a decimal number.) ○ In the case of fraction calculation, a calculation operation similar to whole numbers can be done
	☆ **Review 1** p. 16	(1)	○ Reviewing previously learned content
May (15)	**3. Division of Fractions** p. 17-28	13	◎ Meaning of dividing by a fraction and its method of calculation ○ A quotient becomes larger than dividend when the dividend is divided by a proper fraction (<1). ○ Meaning of decimal calculation involving the first relationship of ratio (p = A ÷ B) and the third relationship of ratio (B= A ÷ p). ◎ Meaning of reciprocals and how to find them [reciprocals] ○ How to carry out mixed calculations of fractions and decimal numbers
	☆ **What Calculations Are We Going to Do?** p. 29	(1)	○ Decision making on use of calculation operations, multiplication or division, involving fractions
June (20)	**4. Symmetric Shapes** p. 30-43	12	◎ Concepts of geometric figures that have line symmetry and how to identify them [line symmetry, line of symmetry] ◎ Concepts of geometric figures that have point symmetry and how to identify them [point symmetry, center of symmetry] ○ Characteristics of corresponding points and sides ○ Constructing (drawing) geometric figures that have line and point symmetry
	☆ **Cutting Paper** p. 44-45	(1)	○ Using characteristics of symmetry, holding and cutting a paper and make a figure that has line symmetry or point symmetry
	☆ **Recycling** p. 46-47	(2)	○ Problem solving involving the second relationship of ratio (A = B x p) and addition and subtraction of ratio
July (10)	**5. Ratio and its Value** p. 48-57	9	◎ Meaning of ratio and how to express it [ratio] ◎ Meaning of the value of ratio and how to find it [value of ratio] ○ Equivalent Ratio ○ Problem solving involving ratio and the value of ratio
	☆ **Review 2** p. 58-59	(2)	○ Retaining and reinforcing the content the students learned in the first trimester

Standard # of periods in 1st trimester: 60 periods	**48 periods** (Adjustable periods (☆): 7 period)
	(Optional periods: 5 period) Total of 12 periods (7 + 5)

2nd Trimester			
Month	Unit	# of periods	Instructional contents
Sept. (20)	**6. Enlarge Drawings and Reduced Drawings** p. 60-69	9	◎ Meaning of enlarged and reduced drawings and how to draw them [enlarged drawing, reduced drawing ○ Meaning of scale and how to express it [scale] ○ How to measure length (or distance) by using a reduced drawing
	7. Proportional Relationships p. 70-82	11	◎ Examination of relationships between two quantities that vary with respect to each other ◎ Meaning of a proportional relationship (direct proportion) and math sentences that show this relationship [proportional relationship] ○ Graphs of proportional relationships ○ Problem solving involving the application of characteristics of proportional relationship
Oct. (20)	☆ **Review 3** p.83	(1)	○ Reviewing previously learned content
	7. Inverse Proportions p. 84-91	6	◎ Examination of the relationships between two quantities that vary with respect to each other ◎ Meaning of inverse proportion and math sentences that show this relationship [inverse proportion] ○ Graphs of proportional relationships
	☆ **Amusement Park: Dream Land** p. 92-93	(2)	○ Problem solving involving selecting necessary information and complying with various conditions
Nov. (20)	**[Volume 2]** **9. Solid Figures** p. 4-17	14	○ Concept and nets of prisms and cylinders [prism, cylinder] ○ Concept and nets of pyramids and cones [pyramid, cone] ○ The first step towards understanding projection
	10. Surface Area and Volume of Solid Figures p. 18-30	11	○ Meaning of surface area of prisms and cylinders and how to find surface area [area of the base, lateral surface area, surface area] ○ Meaning of surface area of pyramids and cones and how to find surface area ○ Meaning of volume of prisms and cylinders and how to find the volume ○ Meaning of volume of pyramids and cones and how to find the volume
	☆ **Review 4** p. 31	(1)	○ Reviewing previously learned content
Dec. (10)	**10. Number of Cases** p. 32-38	5	○ Thinking about how to investigate order or combination of objects by avoiding omissions and repetition of cases
	☆ **Shopping** p.39	(1)	○ Problem solving involving inverse thinking
	☆ **Tiling of Regular Polygons** p.40-41	(2)	○ Using congruent regular polygons a plane can be filled with them without leaving gaps
	☆ **Review 5** p. 42-43	(2)	○ Retaining and reinforcing the content the students learned in the second trimester

Standard # of periods in 2nd trimester: 70 periods	**56 periods** (Adjustable periods (☆): 9 periods) (Optional period: 5 periods)　　　Total of 14 periods (9 + 5)

3rd Trimester			
Month	Unit	# of periods	Instructional contents
Jan. (15)	**12. How to Analyze Data** p. 44-53	10	◎ Meaning of more than or equal to, less than, and less than or equal to; and examination of range of numbers 　　　[more than or equal to, less than, less than or equal to] ◎ How to make a frequency table ○ Investigation of variation of data using histograms 　　　[histogram]
Feb. (20)	**13. Units of Measurement** p. 54-60	7	○ Relationship between a fundamental metric unit and its subunits. ○ Units for quantities "kiloliter, ton, milligram" 　　　[kl, t, mg] ○ Examination of the structure of the decimal system in metric subunits
	14. Various Graphs p. 61-63	5	○ How to read a graph that contains a bar graph and a line graph ○ How to read diagrams
	☆ **Water Cycle: Let's conserve water!** p.64-65	(2)	○ Application of previously learned content across different domains ○ Mathematical examination of everyday phenomena (water cycle/conservation of water)
March (10)	☆ **Review of Mathematics** p. 66-86	(16)	○ Review of all the topics learned during the elementary school years
Standard # of periods in 2ⁿᵈ trimester: 45 periods		**22 periods** (Adjustable periods (☆): 18 period) (Optional periods: 5 period)　　　　　Total of 23 periods (18 + 5)	

Standard # of periods in a year: 175 periods	**126 periods*** (Adjustable periods (☆): 34 periods) (Optional periods: 15 periods)　　　Total of 49 periods (34 + 15)

Note:
- One period is 45 minutes.
- The numbers indicated in the (　) in the month column show the number of available periods in the month.
- The ☆ symbol in the unit column indicates the periods teachers can adjust by considering students' state of learning.
- The ◎ symbol in the instructional contents column indicates important content. The [　] contains terms and symbols students learn in the unit.