



Course Outline: **GRADE 7 MATHEMATICS**
School Year : **2013 – 2014**

FIRST QUARTER		
<i>Peace Integration Theme: Harmony with Self (Personal Peace)</i>		
TIME FRAME	CONTENT	REFERENCES
	NUMBER AND NUMBER SENSE	
Week 1	Sets: An Introduction Operations on Set Venn Diagram Problem Solving Involving Sets	TB pp. 1-12 OR * p. 5
Week 2	Properties of Real Numbers Fundamental Operations on Integers Properties of Operations on Integers	TB pp. 18-49 OR#1 pp. 8-15 OR#2 pp. 12-36 OR#3 pp. 12-30 OR#6 pp. 18-54 OR#9 pp. 50-102 OR#11 pp. 46-57 OR * pp. 23-25
Week 3	Rational Numbers in the Number Line Forms of Rational Numbers	TB pp. 50-53 OR#11 pp. 34-40 OR#11 pp. 58-62
Week 4	Operations with Rational Numbers	TB pp. 54-60
Week 5	Principal Roots and Irrational Numbers The Absolute Value of a Number Subsets of Real Numbers	TB pp. 61-78 OR#11 pp. 41-45 OR#1 pp. 73-80 OR#10 pp. 5-33
	Square Roots	OR#9 pp. 108-120 OR#11 pp. 63-67 OR * p. 19
	Significant Digits & the Scientific Notation	OR#10 pp. 112-118
	MEASUREMENT	
Week 6	Measurement and Measuring Length Measuring Weight/Mass and Volume	TB pp. 79-144 OR#9 pp. 2-38 OR#10 pp. 74-100
Week 7	Measuring Angles, Time and Temperature	OR#11 pp. 3-14 OR#12 pp. 2-44 OR * p. 18
Project	HOME DESIGNERS	

SECOND QUARTER**Peace Integration Theme: Harmony with Creation**

TIME FRAME	CONTENT	REFERENCES
	ALGEBRA	
Week 1	Constants, Variables & Algebraic Expressions Verbal Phrases and Mathematical Phrases	TB pp. 149-157 OR#9 pp. 122-131 OR#10 pp. 131-150 OR#11 pp. 74-89 OR#2 pp. 37-47 OR#3 pp. 46-59 OR#6 pp. 55-73 OR#7 pp. 1-11 OR * p. 17
Week 2	Polynomials Laws of Exponents Addition & Subtraction of Polynomials	TB pp. 158-177 OR#9 pp. 132-153 OR#10 pp. 158-179 OR#11 pp. 170-184 OR#11 pp. 206-210
Week 3	Multiplying & Dividing Polynomials	TB pp. 178-212 OR#9 pp. 154-185 OR#11 pp. 211-218
Week 4	Special Products	OR#10 pp. 180-200 OR#11 pp. 219-230 OR#12 pp. 366-420
Week 5	Properties of Equality Solving Linear Equations in One Variable	TB pp. 233-247 OR#1 pp. 84-113 OR#2 pp. 48-90 OR#6 pp. 73-90 OR#7 pp. 12-50 OR#9 pp. 206-226 OR#10 pp. 210-222 OR#11 pp. 108-125
Week 6	Problem Solving Involving First-Degree Equation a. Number Problems b. Age Problems c. Work Problems	TB pp. 248-281 OR#9 pp. 227-238 OR#10 pp. 242-252
Week 7	d. Uniform Motion Problems e. Mixture & Investment Problems f. Geometry Problems	TB pp. 282-312 OR#10 pp. 253-260
Week 8	Linear Inequalities and Open Sentences in One Variable Absolute Value in Open Sentences	TB pp. 313-336 OR#1 pp. 298-347 OR#11 pp. 135-155 OR#9 pp. 243-269 OR#10 pp. 266-270
Project	PRODUCT DISTRIBUTOR	

THIRD QUARTER***Peace Integration Theme: Harmony with Others***

TIME FRAME	CONTENT	REFERENCES
	GEOMETRY	
Week 1	History of Geometry Logical Reasoning Building Blocks of Geometry	TB pp. 337-369 OR * pp. 13-16
Week 2	Lines & Planes Relationships Writing a Proof	TB pp. 370-390 OR#6 pp. 128-139 OR * p. 4
Week 3	Postulates & Theorems on Angles Parallel Lines and Special Angles	TB pp. 391-411 OR#2 pp. 138-148 OR#3 pp. 111-130 OR#6 pp. 140-153
Week 4	Conditions that Guarantee Parallelism Measuring Angles in Triangles	TB pp. 412-427 OR#2 pp. 149-164 OR#6 pp. 154-172
Week 5	Triangle Inequality Angles in a Polygon	TB pp. 428-447 OR#2 pp. 149-164
Week 6	Properties of Quadrilaterals and Parallelograms	TB pp. 446-457
Week 7	Special Parallelograms Trapezoids	TB pp. 458-478
Project	T-SHIRT DESIGNER <i>("Me, My World and Geometry")</i>	

FOURTH QUARTER		
Peace Integration Theme: Living Harmoniously		
TIME FRAME	CONTENT	REFERENCES
	STATISTICS AND PROBABILITY	
Week 1	Statistics & Basic Terms Nature of Data	TB pp. 480-484 OR#2 pp. 183-193 OR#8 pp. 1-12
Week 2	Collection of Data	TB pp. 485-499 OR#5 pp. 21-28
Week 3	Organization of Data	OR#6 pp. 192-200 OR#8 pp. 13-24
Week 4	Presentation of Data	TB pp. 500-512 OR#5 pp. 29-93
Week 5	Different Forms of Graphs	OR#8 pp. 26-47
Week 6	Measures of Central Tendency Characteristics of Mean, Median and Mode	TB pp. 513-522 OR#1 pp. 660-673 OR#5 pp. 101-125 OR#8 pp. 49-76
Week 7	The Arithmetic Mean Grouped and Ungrouped Data	OR#8 pp. 56-61
Week 8	The Median and Mode Grouped and Ungrouped data	OR#8 pp. 66-76
Week 9	Introduction to Probability Sample Space and Probability The Addition Rules for Probability The Multiplication Rules Conditional Probability	Learning Module
Project	SURVEY	

Textbook(TB):

Oronce and Mendoza (2012). *E–Math 7*. Manila: Rex Book Store, Inc.

Other References (OR):

From the ADZU HS LIBRARY:

1. Larson, R. et. al. (2012). *Holt McDougal Larson Algebra 1*. USA: Houghton Mifflin Harcourt Publishing Company
2. Tech, Stree Devi B. (2012). *Top Score Examination Practice Secondary 1 Mathematics*. Singapore: Fairfield Book Publishers
3. Barker, Lori (2011). *A Complete Guide to Mathematics Secondary 1 & 2 Topic by Topic*. Singapore: Fairfield Book Publishers
4. Barker, Lori (2011). *Leveled Texts for Mathematics: Number and Operations*. CA: Shell Education
5. Paris, Stephanie (2011). *Leveled Texts for Mathematics: Data Analysis and Probability*. CA: Shell Education

6. Shamuraq, Joe (2010). *Mastering Secondary 1 Mathematics*. Singapore: Fairfield Book Publishers
7. Low, Patrick (2009). *Algebraic Specialization Lower Secondary (Secondary 1 & Secondary 2)*. Singapore: Fairfield Book Publishers
8. Palar-Calmorin, Laurentina (2006). *Statistics for Secondary Students*. Mandaluyong City: National Bookstore

* Simon & Schuster (1998). *Colored Transparencies with Overlays and Movable Parts*. USA: Prentice-Hall, Inc.

From the ADZU HS Math Department's Area:

9. Bernabe, Julieta G., et. al. (2012). *New Trends in Math, Second Edition Elementary Algebra Textbook for First Year*. Quezon City: Vibal Publishing House, Inc.
10. Nivera, Gladys C. (2011). *Elementary Algebra: Patterns and Practicalities*. Makati City: SalesianaBOOKS Don Bosco Press, Inc.
11. Mistades, V. and Fajardo-Lim, Y. (2010). *Elementary Algebra*. Quezon City: Sibs Publishing House, Inc.
12. Orines, F. and Manalo, C. (2007). *Next Century Mathematics Elementary Algebra*. Quezon City: Phoenix Publishing House, Inc.

Websites(WS):

1. <http://www.rexinteractive.com/>
2. <http://www.balucamath.tripod.com>
3. <http://www.math.utah.edu/~pa/math/polya.html>
4. <http://library.thinkquest.org/25459/learning/problem/>
5. <http://regentsprep.org/Regents/math/ALGEBRA/AE8/LSolvIn.htm>
6. http://www.ehow.com/how_4488224_solve-linear-inequalities.html
7. http://www.wtamu.edu/academic/anns/mps/math/mathlab/col_algebra/col_alg_tut7_factor.htm
8. http://people.sunyulster.edu/NicholsM/WebCT/FACTORING/factoring_techniques.htm
9. <http://library.thinkquest.org/25459/learning/problem/psback.html>
10. <http://library.thinkquest.org/25459/learning/problem/psguess.html>
11. <http://pred.boun.edu.tr/ps/ps3.html>
12. <http://www.teachervision.fen.com/math/problem-solving/48932.html>
13. <http://www.une.edu.au/bcss/psychology/john-malouff/problem-solving.php#simplify>
14. <http://library.thinkquest.org/25459/learning/problem/pssimpler.html>
15. <http://www.nyu.edu/pages/mathmol/textbook/scinot.html>

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