Academic Vocabulary

CONTENT BUILDER FOR THE PLC

MATH
GRADE 7

PLEASE NOTE: The words contained in **Academic Vocabulary** are words/concepts/terms essential for concept development; this list is not intended to be comprehensive.
The "new to grade level" vocabulary suggestions are a starting point, and educators are encouraged to refer to their district curriculum resources for additional words/concepts/terms.

Rational Number Representations and Operations

7.2 **Number and operations.** The student applies mathematical process standards to represent and use rational numbers in a variety of forms.

7.3 **Number and operations.** The student applies mathematical process standards to add, subtract, multiply, and divide while solving problems and justifying solutions.

		important words for concept development		
subcluster	**standards**	**new to grade level**	**previously introduced**	
Representation	7.2(A)		integer* rational number* whole number*	
Operations	7.3(A), 7.3(B)		denominator difference dividend division divisor factor improper fraction	mixed number numerator product quotient reciprocal simplified form sum

Proportional Reasoning

7.4 **Proportionality.** The student applies mathematical process standards to represent and solve problems involving proportional relationships.

7.7 **Expressions, equations, and relationships.** The student applies mathematical process standards to represent linear relationships using multiple representations.

		important words for concept development	
subcluster	**standards**	**new to grade level**	**previously introduced**
Constant Rate of Change	7.4(A), 7.4(B), 7.4(C)	d = rt*, constant rate of change y = kx, constant of proportionality*	per* proportion rate of change ratio unit rate
Conceptual Development of Non-Proportional	7.7(A)	non-proportional	dependent quantity independent quantity per (unit rate)* proportional
Conversions	7.4(E)		customary (mile*/yard/feet*/inch*; gallon/quart/pint/cup/fluid ounce*; ton/pound/ounce) metric (kilometer*/meter/centimeter*/millimeter*; liter/milliliter; kilogram/gram*/milligram) proportion unit rate
Ratios/Rates/ Percentages	7.4(D)	percent decrease percent increase*	proportion* rate* ratio*

Probability

7.6 **Proportionality.** The student applies mathematical process standards to use probability and statistics to describe or solve problems involving proportional relationships.

		important words for concept development	
subcluster	**standards**	**new to grade level**	**previously introduced**
Representation	7.6(A), 7.6(B)	compound event dependent event independent event outcome* probability	probability experiment* sample space simple event tree diagram
Determination	7.6(E), 7.6(I)	complement compound event dependent event experimental probability independent event	probability* random*/randomly* sample space simple event theoretical probability
Application	7.6(C), 7.6(D), 7.6(F), 7.6(H)	compound event dependent event equally likely* experimental data independent event less likely	more likely* outcome* probability* random sample simple event theoretical probability

Equations and Inequalities

7.10 **Expressions, equations, and relationships.** The student applies mathematical process standards to use one-variable equations and inequalities to represent situations.

7.11 **Expressions, equations, and relationships.** The student applies mathematical process standards to solve one-variable equations and inequalities.

		important words for concept development		
subcluster	**standards**	**new to grade level**	**previously introduced**	
Representation and Solutions	7.10(A), 7.10(B), 7.11(A), 7.11(B)		coefficient constant equation* greater than or equal to greater than/more than* inequality* less than or equal to	less than/fewer than maximum/at most; met or exceed minimum/at least solution set* variable
Application	7.10(C), 7.11(C)	complementary angles supplementary angles	adjacent angle angle* area equation* greater than or equal to greater than/more than* inequality less than or equal to less than/fewer than	maximum/at most; met or exceed minimum/at least perimeter straight angle variable vertical angle volume

Geometry and Measurement

7.4 **Proportionality.** The student applies mathematical process standards to represent and solve problems involving proportional relationships.

7.5 **Proportionality.** The student applies mathematical process standards to use geometry to describe or solve problems involving proportional relationships.

7.8 **Expressions, equations, and relationships.** The student applies mathematical process standards to develop geometric relationships with volume.

7.9 **Expressions, equations, and relationships.** The student applies mathematical process standards to solve geometric problems.

7.11 **Expressions, equations, and relationships.** The student applies mathematical process standards to solve one-variable equations and inequalities.

		important words for concept development			
subcluster	**standards**	**new to grade level**		**previously introduced**	
Conversions	7.4(E)			customary (mile*/yard/feet*/inch*; gallon/quart/pint/cup/fluid ounce*; ton/pound/ounce) metric (kilometer*/meter/centimeter*/millimeter*; liter/milliliter; kilogram/gram*/milligram) proportion unit rate	
Area	7.9(C), 7.9(D)	π (pi) diameter lateral surface area* net* quarter circle radius	rectangular pyramid semicircle* square pyramid* total surface area* triangular pyramid	area* composite figure congruent* formulas (area): • A = ½ bh • A = bh • A = ½ (b_1+ b_2)	height rectangle* rectangular prism* square trapezoid* triangle* triangular prism
Volume	7.8(A), 7.8(B), 7.9(A)	formulas (volume): • V = Bh • V = 1/3Bh height* of prism/pyramid rectangular pyramid square pyramid* triangular pyramid		area of the base* base congruent formula (volume): • V = Bh (for rectangular prisms only)	height* rectangular prism* triangular prism* volume*

Geometry and Measurement (continued)

7.4 **Proportionality.** The student applies mathematical process standards to represent and solve problems involving proportional relationships.

7.5 **Proportionality.** The student applies mathematical process standards to use geometry to describe or solve problems involving proportional relationships.

7.8 **Expressions, equations, and relationships.** The student applies mathematical process standards to develop geometric relationships with volume.

7.9 **Expressions, equations, and relationships.** The student applies mathematical process standards to solve geometric problems.

7.11 **Expressions, equations, and relationships.** The student applies mathematical process standards to solve one-variable equations and inequalities.

		important words for concept development			
subcluster	**standards**	**new to grade level**		**previously introduced**	
Similarity	7.5(A), 7.5(C)	corresponding angle*/side length similar shape*		scale* factor congruent proportion* ratio	
Angle Relationships	7.11(C)	complementary angles supplementary angles		adjacent angle angle* area equation* inequality	perimeter straight angle variable vertical angle volume
Circles	7.5(B), 7.8(C), 7.9(B)	π (pi)* circumference* diameter* radius*	formulas: • $C = 2\pi r$ • $C = \pi d$ • $A = \pi r^2$	ratio*	

Data Analysis

7.6 **Proportionality.** The student applies mathematical process standards to use probability and statistics to describe or solve problems involving proportional relationships.

7.12 **Measurement and data.** The student applies mathematical process standards to use statistical representations to analyze data.

important words for concept development				
subcluster	**standards**	**new to grade level**	**previously introduced**	
Interpretation	7.6(G), 7.12(B)		bar graph* circle graph* dot plot*	part-to-part part-to-whole percent
Comparison	7.12(A), 7.12(C)		asymmetrical box plot* center center dot plot* interquartile range* (IQR) mean measures of center measures of spread	median* mode* outlier quartile* range* shape of the data distribution* skew* spread symmetrical*

Personal Financial Literacy

7.13 **Personal financial literacy.** The student applies mathematical process standards to develop an economic way of thinking and problem solving useful in one's life as a knowledgeable consumer and investor.

important words for concept development					
subcluster	**standards**	**new to grade level**		**previously introduced**	
Budgets	7.13(B), 7.13(C)	asset* financial asset* liability* net worth* net worth statement* retirement		budget expense* fixed expense income*	savings* tax variable expense
Calculations	7.13(A), 7.13(B), 7.13(D), 7.13(E), 7.13(F)	compound interest coupon discount* formulas: • $I = Prt$ • $A = P(1 + r)^t$	principal rebate* sales tax* simple interest*	% (percent)* deposit* expense* income income tax*	interest* loan* rate* withdrawal*