

Academic Vocabulary

CONTENT BUILDER FOR THE PLC

MATH
GRADE 6

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.

Representation and Comparison of Rational Numbers

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

subcluster	standards	important words for concept development	
		new to grade level	previously introduced
Representation	6.2(A)	integer* rational number*	whole number*
Comparison	6.2(C), 6.2(D)		equal to (=) greater than (>) greatest to least* inequality least to greatest* (coldest/warmest*) less than (<)

All Operations with Rational Numbers

- 6.2 Number and operations.** The student applies mathematical process standards to represent and use rational numbers in a variety of forms.
- 6.3 Number and operations.** The student applies mathematical process standards to represent addition, subtraction, multiplication, and division while solving problems and justifying the solutions.

important words for concept development				
subcluster	standards	new to grade level		previously introduced
Multiplication/ Division with Positive Rational Numbers	6.2(E), 6.3(A), 6.3(B), 6.3(E)	reciprocal		denominator
				dividend
				divisor
				equivalent*
				factor
				improper fraction
All Operations with Integers	6.2(B), 6.3(C), 6.3(D)	absolute value integer opposite number		product
				quotient
				sum*
				difference
				dividend
			division divisor factor	

Proportional Reasoning

6.4 Proportionality. The student applies mathematical process standards to develop an understanding of proportional relationships in problem situations.

6.5 Proportionality. The student applies mathematical process standards to solve problems involving proportional relationships.

important words for concept development				
subcluster	standards	new to grade level		previously introduced
Fractions/ Decimals/ Percents	6.4(E), 6.4(F), 6.4(G), 6.5(B), 6.5(C)	benchmark percent percent*/percentage* proportion*		benchmark fraction denominator equivalent* numerator
Ratios/Rates	6.4(B), 6.4(C), 6.4(D), 6.5(A)	part-to-part comparison per (unit rate)* proportion*	rate* ratio* scale factor*	part-to-whole comparison
Conversions	6.4(H)	proportion unit rate		customary (mile/yard*/feet*/inch; gallon/quart/pint*/cup*/fluid ounce; ton/pound*/ounce*) metric (kilometer/meter*/centimeter*/millimeter*; liter/milliliter; kilogram/gram/milligram*)

Expressions, Equations, and Inequalities

- 6.7 Expressions, equations, and relationships.** The student applies mathematical process standards to develop concepts of expressions and equations.
- 6.9 Expressions, equations, and relationships.** The student applies mathematical process standards to use equations and inequalities to represent situations.
- 6.10 Expressions, equations, and relationships.** The student applies mathematical process standards to use equations and inequalities to solve problems.

important words for concept development				
subcluster	standards	new to grade level		previously introduced
Order of Operations	6.7(A), 6.7(B), 6.7(C), 6.7(D)	exponent prime factorization*		associative property commutative property distributive property equation* equivalent expression*
Representation and Solutions	6.9(A), 6.9(B), 6.9(C), 6.10(A), 6.10(B)	coefficient constant greater than or equal to less than or equal to	maximum*/at most; met or exceed* minimum/at least* solution set*	equation* greater than inequality* less than variable

Algebraic Representations

- 6.4 Proportionality.** The student applies mathematical process standards to develop an understanding of proportional relationships in problem situations.
- 6.6 Expressions, equations, and relationships.** The student applies mathematical process standards to use multiple representations to describe algebraic relationships.
- 6.11 Measurement and data.** The student applies mathematical process standards to use coordinate geometry to identify locations on a plane.

important words for concept development					
subcluster	standards	new to grade level		previously introduced	
Coordinate Planes	6.11(A)	quadrant II, III, IV		axis/axes	origin (0, 0)
				coordinate*	quadrant I
				coordinate grid*	x-axis*
				coordinate plane*	y-axis*
				ordered pair*	
Linear Representations	6.4(A), 6.6(A), 6.6(B), 6.6(C)	dependent quantity* independent quantity*		additive pattern/relationship	
				multiplicative pattern/relationship	

Geometry and Measurement

- 6.4 Proportionality.** The student applies mathematical process standards to develop an understanding of proportional relationships in problem situations.
- 6.8 Expressions, equations, and relationships.** The student applies mathematical process standards to use geometry to represent relationships and solve problems.

important words for concept development				
subcluster	standards	new to grade level		previously introduced
Conversions	6.4(H)	proportion unit rate	customary (mile/yard*/feet*/inch; gallon/quart/pint*/cup*/fluid ounce; ton/pound*/ounce*) metric (kilometer/meter*/centimeter*/millimeter*; liter/milliliter; kilogram/gram/milligram*)	
Triangles	6.8(A)	interior angle opposite angle	acute angle adjacent angle degree* length obtuse angle	right angle side triangle* vertex
Area/Volume	6.8(B), 6.8(C), 6.8(D)	formulas (area): • $A = \frac{1}{2}bh$ • $A = bh$ • $A = \frac{1}{2}(b_1 + b_2)h^*$	area* area of the base base* cubic unit (cubic feet, cubic centimeter*, etc.) dimensions* formula (volume): $V = Bh$ height length* parallelogram*	perimeter* rectangle* rectangular prism* square unit (square feet*, square centimeter, etc.) trapezoid* triangle volume* width*

Data Analysis

6.12 Measurement and data. The student applies mathematical process standards to use numerical or graphical representations to analyze problems.

6.13 Measurement and data. The student applies mathematical process standards to use numerical or graphical representations to solve problems.

important words for concept development				
subcluster	standards	new to grade level		previously introduced
Representation/ Interpretation of Data	6.12(A), 6.13(A), 6.13(B)	box plot*	median	data*
		data distribution	mode	dot plot
		histogram*	quartile	line plot*
		interquartile range (IQR)*	range	stem-and-leaf plot*
		mean*	skew	
		measures of center	symmetrical	
		measures of spread	variability*	
Measures of Data	6.12(B), 6.12(C), 6.12(D)	asymmetrical*	percent bar graph*	dot plot*
		center	percent of values (percentage)	
		data distribution*	quartile	
		histogram*	relative frequency table*	
		interquartile range (IQR)*	range*	
		mean*	shape of data distribution	
		measures of center	skew	
		measures of spread	spread	
		median*	symmetrical*	
		mode		
		outlier		

Personal Financial Literacy

6.14 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
Banking	6.14(A), 6.14(B), 6.14(C)	credit limit* fee* transfer*	credit card* debit card* deposit* interest* withdrawal*
Credit	6.14(D), 6.14(E), 6.14(F)	bankruptcy credit report* debt	borrow* borrower lender loan*
Post-Secondary Education Planning	6.14(G), 6.14(H)	annual salary* grant occupation* scholarship student loan work-study	college income savings