

4th Grade Vocabulary (Harcourt Math)

Chapter	Word	Definition
Chapter 1	benchmark	A known number of things that helps you understand the size or amount of a different number of things.
	Digit	Any number of the ten symbols 0,1,2,3,4,5,6,7,8, or 9 used to write numbers.
	Period	Each group of three digits separated by commas in a multi-digit number.
	Million	The period after thousands, equal to one thousand thousands.
	pictograph	A graph that uses pictures to show and compare information.
	Place value	Place value determines the value of a digit in a number, based on the location of the digit.
	Expanded notation	A way to write numbers by showing the value of each digit.
Chapter 2	Less than	A symbol used to compare two numbers, with the lesser number given first.
	Greater than	A symbol used to compare two numbers, with the greater number given first.
	compare	A method of looking at numbers to figure out which is of greater or lesser value
	order	Put numbers from greatest to least or least to greatest.
	Round	Replacing a number with another number that tells about how many or how much
	Estimate	To find a number that is close to an exact number.
	Value	How much a given digit is worth in a given place value.
Chapter 3	Sum	The answer to an addition problem.
	Difference	The answer to a subtraction problem.
	Order property of addition	The property stating that you can add two or more numbers in any order and get the same sum.
	Addend	A number that is added to another in an addition problem.
	Subtrahends	A number that is subtracted, or subtracted from another number in a subtraction problem.
	Mental math	A way of doing math where you can only use your mind, no scratch paper or fingers.

	Regroup	To exchange amounts of equal value to rename a number.
Chapter 4	Expression	A part of a number sentence that combines numbers and operation signs but does not have an equal sign.
	Equation	A number sentence which shows that two quantities are equal.
	Parenthesis	The symbols used to show which operation or operations in an expression should be done first.
	Variable	A letter or symbol that stands for a number or numbers.
	Fact families	A set of related multiplication and division, or addition and subtraction, equations $2 \times 4 = 8$ $8 \div 4 = 2$ $4 \times 2 = 8$ $8 \div 2 = 4$
	Order of operation	PEMDAS; the order in which you figure your operations in a multi-operational problem.
	Input	What you put into a function machine.
	Output	What you get out of a function machine.
Chapter 5	Survey	A method of gathering information
	Frequency	The number of times an event occurs.
	Cumulative frequency	A running total of items being counted
	Tally	A line that represents one occurrence, when you mark your fifth occurrence it is marked with a diagonal line across all four previous lines.
	Mode	The number(s) or item(s) that occur most often in a set of data.
	Median	The middle number in an ordered set of data.
	Line plot	A graph that shows the frequency of data along a number line.
	Range	The difference between the greatest and the least number in a set of data.
	Outlier	A value separated from the rest of the data.
	Stem and leaf plot	A data display that shows groups of data arranged by place value.
	Stem	A tens digit in a stem and leaf plot.
	Leaf	A ones digit in a stem and leaf plot.
	Scale	The numbers placed at fixed distances on a graph to help label the graph.
	Interval	The distance between two numbers on the scale of a graph.
	Data	Information collected about people or things.

	Table	A place to display information collected.
	Tally table	A table that uses tally marks to record data.
	Frequency table	A table that uses numbers to record data about how often something happens.
	Bar graph	A graph that uses bars to show data.
Chapter 6	Line graph	A graph that uses a line to show how data change over a period of time.
	Double bar graph	A bar graph used to compare similar kinds of data.
Chapter 8	Inverse operations	Operations that undo each other. Addition and subtraction are inverse operations. Multiplication and division are inverse operations.
	Product	The answer to a multiplication problem.
	Quotient	The number, not including the remainder, that results from dividing.
	Dividend	The number that is to be divided in a division problem.
	Divisor	The number that divides the dividend.
	Multiply	The process of finding the total number of items in equal-sized groups, or of finding the total number of items in a given number of groups when each group contains the same number of items; Multiplication is the inverse of division.
	Divide	The process of sharing a number of items to find how many groups can be made or how many items will be in each group; the opposite operation of multiplication.
Chapter 11	Multiple	The product of a given whole number and another whole number
Chapter 12	Multi-step problem	A problem requiring more than one step to solve.
Chapter 13	Remainder	The amount left over when a number cannot be divided equally.
	Compatible numbers	Nearby numbers that are easy to compute mentally.
Chapter 14	Mean	The number found by dividing the sum of a set of numbers by the number of addends.
Chapter 16	Prime number	A whole number greater than 1 that has only two factors; 1 and itself
	Composite number	A whole number that has more than two factors.
	Factor tree	A diagram that shows the prime factors of a number.
	Prime factors	A factor that is a prime number.

	Array	An arrangement of objects in rows and columns, specifically used in multiplication.
Chapter 17	Fraction	A number that names part of a whole or part of a group.
	Equivalent fraction	Two or more fractions that name the same amount.
	Simplest form	A fraction is in simplest form when one is the only number that can divide evenly into the numerator and denominator.
	Mixed number	A number represented by a whole number and a fraction.
	numerator	The number above the bar in a fraction that tells how many parts of the whole being considered.
	Denominator	The number below the bar in a fraction. It tells how many equal parts are in the whole.
	Part	Only some
	Whole	All
	Equal part	Same amount
	Shaded	Darkened
	unshaded	Left blank
Chapter 18	Like fractions	Fractions that have the same denominator.
Chapter 19	Decimal	A number with one or more digits to the right of the decimal point.
	Equivalent decimals	Two or more decimals that name the same amount.
	Tenths	One of ten equal parts; place value to the right of the decimal.
	Hundredths	One of one thousand equal parts; place value two places to the right of the decimal.
Chapter 21	Linear units	Units that measure length, width, height, or distance.
	Inch (in)	A customary unit for measuring length; about the distance from your thumb knuckle to the tip.
	Foot (ft)	A customary unit for length or distance; 12 inches.
	Yard (yd)	A customary unit for measuring length or distance; 3 feet = 36 inches
	Mile (mi.)	A customary unit for measuring length and distance; 5,280 feet = 1 mile
	Capacity	The amount a container can hold when filled.

	Cup (c)	A customary unit used to measure capacity; 8 ounces.
	Pint (pt)	A customary unit used to measure capacity; 2 cups.
	Quart (qt)	A customary unit used to measure capacity; 2 pints.
	Gallon (gal)	A customary unit used to measure capacity; 4 quarts.
	Weight	How heavy an object is
	Ounce (oz)	A customary unit for measuring weight; 16 ounces is 1 pound
	Pound (lb.)	A customary unit for measuring weight; 1 pound is 16 ounces.
	Ton (T)	A customary unit for measuring weight; 2,000 lbs. = 1 Ton
	Conversion factor	The number by which you divide or multiply to convert from one unit to another.
Chapter 22	Centimeter (cm)	A metric unit for measuring length. 100 centimeters = 1 meter. A centimeter is about the length of your index finger nail.
	Decimeter (dm)	A metric unit for measuring length; 10 centimeters = 1 decimeter A decimeter is about the length of an adult's hand.
	Meter (m)	A metric unit for measuring length and distance; 100 centimeters = 1 meter
	Kilometer (km)	A metric unit for measuring length and distance; 1,000 meters = 1 kilometer
	Milliliter (mL)	A metric unit for measuring capacity; 1,000 milliliters = 1 Liter
	Liter (L)	A metric unit for measuring capacity; 1,000 milliliters = 1 Liter
	Mass	The amount of matter in an object.
	Gram	A metric unit for measuring mass; 1,000 grams = 1 kilogram
Chapter 23	Degree's Fahrenheit	A customary unit for measuring temperature;
	Degree's Celsius	A metric unit for measuring temperature;
	Negative numbers	All the numbers to the left of zero on the number line. Negative numbers are less than 0.

	Positive numbers	All the numbers to the right of zero on the number line. Positive numbers are greater than 0.
Chapter 24	Ordered pairs	A pair of numbers used to locate a point on a coordinate grid. The first number tells how far to move horizontally, and the second number tells how far to move vertically.
	x-axis	The horizontal line on a coordinate grid.
	y-axis	The vertical line on a coordinate grid.
	x-coordinate	The first number in an ordered pair. It tells the distance to move horizontally. The x in (x,y)
	y-coordinate	The second number in an ordered pair. It tells the distance to move vertically. The y in (x,y)
	Function table	A table that matches each input value with an output value. The output values are determined by the function.
	Plot	To put points on a coordinate grid.
Chapter 25	Point	An exact location in space.
	Plane	A flat surface that extends without end in all directions.
	Line	A straight path in a plane, extending in both directions with no endpoints.
	Line segment	A part of a line that includes two points called endpoints and all the points between them.
	Ray	A part of a line with one endpoint, that continues without end in one direction.
	Angle	A figure formed by two line segments or rays that share the same endpoint.
	Vertex/vertices	The point at which two rays of an angle or two or more line segments meet in a plane figure, or where three or more sides meet in a solid figure.
	Right angle	An angle that forms a square corner and has a measure of 90° .
	Acute angle	An angle that has a measure of less than 90° .
	Obtuse angle	An angle that has a measure of greater than 90° .
	Perpendicular (lines)	Two lines that intersect to form four right angles.
	Parallel (lines)	Lines that never intersect and are always the same distance apart.
	Intersecting (lines)	Lines that cross each other at exactly one point.

	Congruent	Having the same size and shape.
	Transformations	The movement of a figure by a slide, flip, or turn.
	Slide	A movement of a figure to a new position without turning or flipping it.
	Flip	A movement of a figure to a new position by flipping the figure over a line.
	Turn (rotate)	A movement of a figure to a new position by rotating the figure around a point.
	Similar	Having the same shape but not necessarily the same size.
	Rotational symmetry	What a figure has if it can be turned about a central point and still look the same in at least two positions.
Chapter 25	Figure	A shape.
Chapter 26	Polygon	A closed plane figure with straight sides. Each side is a line segment.
	Triangle	A polygon with 3 sides.
	Quadrilateral	A polygon with 4 sides.
	Pentagon	A polygon with 5 sides.
	Hexagon	A polygon with 6 sides and six angles.
	Octagon	A polygon with 8 sides.
	Perimeter	The distance around a figure.
	Formula	A set of symbols that expresses a mathematical rule.
	Area	The number of square units needed to cover a surface.
Chapter 27	Two-dimensional	Measured in two directions, such as length and width.
	Three-dimensional	Measured in three directions such as length, width and height.
	Net	A two-dimensional pattern that can be folded to make a three-dimensional figure.
	Volume	The measure of the amount of space a solid figure occupies.
	Cubic inches	A unit of volume with dimensions of one unit times one unit times one unit.
	Solid figure	A three-dimensional figure.
	Face	A polygon that is flat surface of a solid figure.
	Edge	The line segment where two faces of a solid figure meet.
	Prism	A solid figure.
	Cube	A solid figure with 6 congruent square faces.
	Rectangular prism	A solid figures in which all six faces are rectangles.

	Triangular prism	A solid figure in which all three faces are triangles.
	Square pyramid	A solid figure with a square base and triangular sides that meet at a single point.
	Sphere	A solid figure which has the shape of a round ball.
	Cone	A solid pointed figure that has a flat, round base.
	Cylinder	A solid figure that is shaped like a can.
Chapter 28	Protractor	A tool for measuring the size of an angle.
	Center	The point inside a circle that is the same distance from each point on the circle.
	Radius	A line segment with one endpoint at the center of a circle and the other endpoint on the circle.
	Chord	A line segment with endpoints on a circle.
	Diameter	A line segment that passes through the center of a circle and has its endpoints on the circle.
	compass	A tool used to construct circles.
	Circumference	The distance around a circle.
	Equilateral triangle	A triangle with three congruent sides.
	Isosceles triangle	A triangle with two congruent sides.
	Scalene triangle	A triangle with no congruent sides.
	Rhombus	A parallelogram with four congruent sides.
	Parallelogram	A quadrilateral whose opposite sides are parallel and congruent; has two acute angles and two obtuse angles.
	Trapezoid	A quadrilateral with one pair of parallel sides.
	Venn Diagram	A diagram that shows relationships among sets of things.
Chapter 29	Outcomes	A possible result of an experiment.
	Event	One outcome or a combination of outcomes in an experiment.
	Tree diagram	An organized list that shows all possible outcomes of an event.
	Predict	To make a reasonable guess about what will happen.
	Likely	Having a greater than even chance of happening.
	Unlikely	Having a less than even chance of happening; and event is unlikely if it does not have a good chance of happening.
	Certain	An event is certain if it will always happen.

	Impossible	Never able to happen.
Chapter 30	Fairness	Fairness in a game means that one player is as likely to win as another. Each player has an equal chance of winning.
	Mathematical Probability	A comparison of the number of favorable outcomes to the number of possible outcomes of an event.