

Glossary

This glossary provides definitions of key vocabulary terms in the Grade 2 lessons. Locations of key vocabulary terms in the curriculum are included with each definition.

A

Algorithm (URG Unit 9 p. 4)

A step-by-step method for computing.

Analog Clock (URG Unit 6 p. 20)

The traditional clock for telling time having two hands that move in a circle to indicate hours, minutes, and perhaps seconds.

Approximate (URG Unit 4 p. 37)

1. (adjective) a number that is close to the desired number
2. (verb) to estimate

Area (URG Unit 16 pp. 16, 33)

A measure of the amount of space a shape covers. Area is measured in square units.

Armadillo (URG Unit 19 p. 19)

A burrowing mammal found from the southern U.S. to Argentina that has a head and body encased in an armor of small bony plates.


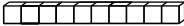
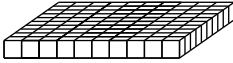
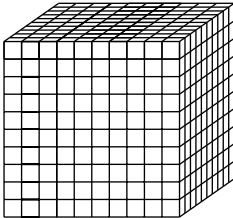
Axes (URG Unit 18 p. 33)

Reference lines on a graph. In the Cartesian coordinate system, the axes are two perpendicular lines that meet at the origin. The singular of axes is axis.

B

Base-ten Pieces (URG Unit 6 p. 36)


A set of manipulatives used to model our number system as shown in the figure below. Note that a skinny is made of 10 bits, a flat is made of 100 bits, and a pack is made of 1000 bits.

Nickname	Picture
bit	
skinny	
flat	
pack	

Benchmarks (URG Unit 9 p. 18)

Numbers convenient for comparing and ordering numbers, e.g., 0, $\frac{1}{2}$, 1, are convenient benchmarks for comparing and ordering fractions.

Bit (URG Unit 6 p. 36)

A cube that measures 1 cm on each edge. It is the smallest of the base-ten pieces and is  often used to represent 1. (*See also* base-ten pieces.)

C

Cartesian Coordinate System (URG Unit 18 p. 4)

A method of locating points on a flat surface by means of numbers. This method is named after its originator, René Descartes. (See also coordinates.)

Centimeter (URG Unit 5 p. 28; SG p. 111)

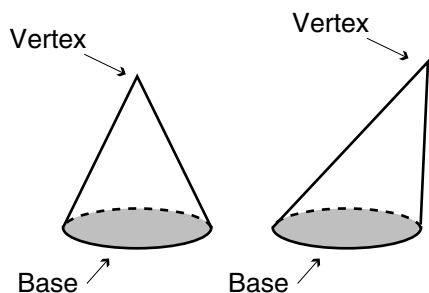
A unit of length in the metric system. A centimeter is $1/100$ of a meter.

Computational Estimation (URG Unit 9 p. 19)

An estimate of the result of a computation. For example, one can estimate 28×41 by mentally computing $30 \times 40 = 1200$.

Cone (URG Unit 17 p. 20)

A solid bounded by a circular plane base and the surface formed by all line segments joining a point on the circle to a common point, called the vertex.



Controlled Variables (URG Unit 5 pp. 4, 35)

Variables that are held constant or not changed in an experiment. These variables are often called fixed variables.

Coordinates (URG Unit 18 p. 4)

An ordered pair of numbers that locates points on a flat surface relative to a pair of coordinate axes. For example, in the ordered pair (4, 5), the first number (coordinate) tells how many units to move horizontally from the vertical axis and the second coordinate tells how many units to move vertically from the horizontal axis.

Corners (URG Unit 15 p. 18)

See vertex.

Counting Back (URG Unit 2 pp. 4, 55)

A strategy for subtracting in which students start from a larger number and then count back until the number is reached. For example, to solve $8 - 3$, begin with 8 and count back three, 7, 6, 5.

Counting Up (URG Unit 2 pp. 4, 55)

A strategy for adding two numbers in which students start from one of the two numbers and then count until the total is reached. For example, to add 6 and 3, begin with 6 and count three more, 7, 8, 9.

Cube (URG Unit 17 p. 20)

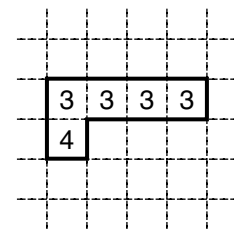
A solid with six congruent square faces.

Cube Model (URG Unit 7 p. 16)

An object made by joining unit cubes face-to-face.

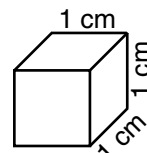
Cube Model Plan (URG Unit 7 pp. 4, 23)

A way of representing certain cube models in 2-dimensions on a square grid. Each unit square has a whole number written in it or is left blank. The number in the unit square records the number of cubes stacked over that square.



Cubic Centimeter (URG Unit 10 pp. 5, 19)

The volume of a cube that is one centimeter long on each edge.



cubic centimeter

Cubic Units (URG Unit 7 p. 24)

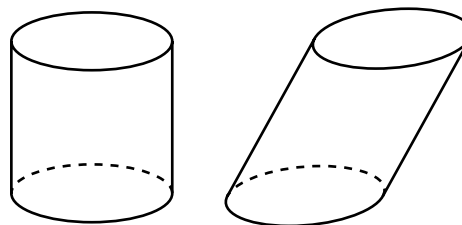
A unit for measuring volume—a cube that measures one unit along each edge. For example, cubic centimeters and cubic inches.

Cubit (URG Unit 4 p. 37; SG p. 89)

An ancient unit of length based on the distance from the elbow to the tip of the longest finger.

Cylinder (URG Unit 15 p. 14 & Unit 17 p. 20)

A three-dimensional figure with two parallel congruent circles as bases (top and bottom) and a curved side which is the union of parallel lines connecting corresponding points on the circles.



D

Denominator (URG Unit 14 p. 16)

The number below the line in a fraction. The denominator indicates the number of equal parts in which the unit whole is divided. For example, the 5 is the denominator in the fraction $\frac{2}{5}$. In this case the unit whole is divided into five equal parts. (*See also* numerator.)

Digital Clock (URG Unit 6 pp. 20, 22)

A type of clock that displays time in numerical form, e.g., 9:45.

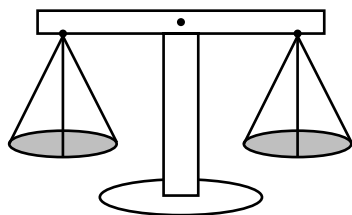
E

Edge (URG Unit 17 p. 4)

A line segment where two faces of a solid figure meet.

Equal-Arm Balance (URG Unit 8 p. 16)

A device for measuring the mass of an object by balancing the object against a number of standard masses (usually multiples of 1 unit, 10 unit, and 100 units, etc.)



Even Number (URG Unit 2 p. 31)

Numbers that are doubles. The numbers 0, 2, 4, 6, 8, 10, . . . etc. are even. The number 28 is even because it is $14 + 14$.

F

Face (URG Unit 17 pp. 4, 21, 28)

A plane figure that is one side of a solid figure.

Fact Families (URG Unit 11 p. 21)

Related math facts, e.g., $1 + 2 = 3$, $2 + 1 = 3$, $3 - 2 = 1$, and $3 - 1 = 2$.

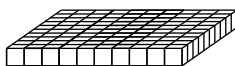
Fixed Variables (URG Unit 5 pp. 4, 37)

Variables that are held constant or not changed in an experiment. These variables are often called controlled variables.

Flat (URG Unit 6 p. 36)

A block that measures $1 \text{ cm} \times 10 \text{ cm} \times 10 \text{ cm}$.

It is one of the base-ten pieces and is often used to represent 100. (*See also* base-ten pieces.)



Flip (URG Unit 15 pp. 4, 29; SG p. 427)

See reflection.

Function (URG Unit 19 p. 4)

A rule that assigns to any input number exactly one output number. More generally, a rule that assigns to the elements of one set (the domain) exactly one element of another set (the target).

G

Gram (URG Unit 8 p. 33)

The basic unit used to measure mass.

H

Hand Span (URG Unit 4 p. 37; SG pp. 89, 111)

The distance from the tip of your thumb to the tip of your baby finger with your hand spread as wide as possible.

Hemisphere (URG Unit 17 p. 62)

One half of a sphere bounded by a plane through the center of the sphere.

Horizontal Axis (URG Unit 2 p. 42)

In a coordinate grid, the x-axis. The axis that extends from left to right.

I

Interval (URG Unit 2 p. 29 & Unit 5 p. 15)

The set of all numbers between (and including) two given numbers.

J

K

L

Length (URG Unit 16 p. 33)

1. The distance along a line or curve from one point to another. Distance can be measured with a ruler or tape measure.
2. The distance from one “end” to another of a two- or three-dimensional figure. For example, the length of a rectangle usually refers to the length of the longer side.

Line Symmetry (URG Unit 15 pp. 5, 38)

A figure has line symmetry if it can be folded along a line so that the two halves match exactly.

Line of Symmetry (URG Unit 15 pp. 5, 37)

A line such that if a figure is folded along the line, then one half of the figure matches the other.

M

Mass (URG Unit 8 p. 4 & Unit 10 p. 48)

The amount of matter in an object.

Mean (URG Unit 5 p. 39)

An average of a set of numbers that is found by adding the values of the data and dividing by the number of values.

Median (URG Unit 5 pp. 4, 39)

The number “in the middle” of a set of data. If there is an odd number of data, it is the number in the middle when the numbers are arranged in order. So the median of {1, 2, 14, 15, 28, 28, 30} is 15. If there is an even number of data, it is the number halfway between the two middle numbers. The median of {1, 2, 14, 15, 28, 29} is $14\frac{1}{2}$.

Meniscus (URG Unit 10 p. 33; SG p. 259)

The curved surface formed when a liquid creeps up the side of a graduated cylinder.

Meter (URG Unit 5 p. 29; SG p. 111)

A unit of length in the metric system. A meter is a bit more than 39 inches.

Miles per Hour (mph) (URG Unit 10 p. 19)

A unit of speed. An object traveling at a constant speed of one mile per hour travels one mile in one hour.

Milliliter (ml) (URG Unit 10 pp. 5, 19)

A measure of capacity in the metric system that is the volume of a cube that is one centimeter long on each side.

Mr. Origin (URG Unit 18 p. 15)

A plastic figure used to help children learn about direction and distance. It represents the origin of a coordinate system. An object on a flat surface can be specified by indicating how far to the left/right of Mr. Origin it is located and how far to the front/back of Mr. Origin.

Multiplication Number Sentence (URG Unit 12 p. 31)

A number sentence uses numbers and symbols instead of words to describe a problem. A multiplication number sentence describes a multiplication problem. For example, a multiplication number sentence for the problem “5 birds landed on a branch. Each bird had two seeds. How many seeds do all 5 birds have?” is $5 \times 2 = 10$.

N

Negative Number (URG Unit 19 p. 36)

A number less than zero; a number to the left of zero on a horizontal number line.

Net (URG Unit 17 pp. 5, 36, 38)

A way of representing the surface of a three-dimensional solid in two-dimensions provided the solid has flat faces. A net can be obtained by cutting the surface along edges until it can be laid flat on a plane.

Nocturnal (URG Unit 19 p. 16)

Active at night.

Number Line (URG Unit 5 p. 21)

A diagram that represents numbers as points on a line.

Number Sentence (URG Unit 12 p. 31)

A number sentence uses numbers and symbols instead of words to describe a problem. For example, a number sentence for the problem “5 birds landed on a branch. Two more birds also landed on the branch. How many birds are on the branch?” is $5 + 2 = 7$.

Numerator (URG Unit 14 p. 16)

The number written above the line in a fraction. For example, the 2 is the numerator in the fraction $\frac{2}{5}$. In this case, we are interested in two of the five parts. (*See also* denominator.)

O

Odd Number (URG Unit 2 p. 31)

A number that is not even. The odd numbers are 1, 3, 5, 7, 9, and so on.

Origin (URG Unit 18 pp. 4, 17)

The point at which the x- and y-axes intersect on a coordinate plane. The origin is described by the ordered pair (0, 0) and serves as a reference point so that all the points on the plane can be located by ordered pairs.

P

Parallel Lines (URG Unit 15 p. 18)

Lines that do not intersect.

Perimeter (URG Unit 20 p. 18)

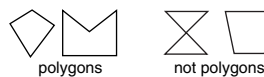
The distance around a two-dimensional shape.

Place Value (URG Unit 6 p. 36)

The value of a digit in a number. For example, the 5 is in the hundreds place in 4573, so it stands for 500.

Polygon

A two-dimensional connected figure made of line segments in which each endpoint of every side meets with an endpoint of exactly one other side.



Polyhedron (URG Unit 17 pp. 4, 36)

A connected geometric solid whose surface is made of polygons. Each polygon meets exactly one other polygon along a common edge. The plural of polyhedron is polyhedra.

Prism (URG Unit 17 p. 20)

A polyhedron that has two congruent faces, called bases, that are parallel to each other, and all other faces are parallelograms. If the other faces are rectangles the prism is called a right prism.



Pyramid (URG Unit 17 p. 20)

A polyhedron that has a polygon for a base and triangular faces with a common vertex.



Q

R

Range (URG Unit 4 p. 20)

The range of a data set is the difference between the greatest and least values in the set.

Rectangle (URG Unit 15 p. 22)

A polygon with four sides and with four right angles.

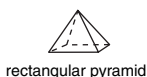
Rectangular Prism (URG Unit 17 p. 20)

A prism whose faces are all rectangles.



Rectangular Pyramid (URG Unit 17 p. 20)

A pyramid with a rectangular base.



Reflection (URG Unit 15 p. 5)

A motion of the plane in which the plane is reflected over a line so that any point and its image are the same distance from the line.

Related Facts (URG Unit 11 p. 21)

Fact families, e.g., $1 + 2 = 3$, $2 + 1 = 3$, $3 - 2 = 1$, and $3 - 1 = 2$.

Remainder (URG Unit 12 pp. 18, 44)

Something that remains or is left after a division problem, e.g., $16 \div 5 = 3$ with 1 as a remainder.

Right Angle (URG Unit 15 p. 18)

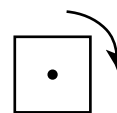
An angle that measures 90° .

Rotation (URG Unit 15 p. 5)

A transformation (motion) in which a figure is turned a specified angle and direction around a point.

Rotational Symmetry (URG Unit 15 pp. 5, 37, 39)

A figure has rotational (or turn) symmetry if there is a point on the figure and a rotation of less than 360° about that point so that it “fits” on itself. For example, a square has a turn symmetry of $\frac{1}{4}$ turn (or 90°) about its center.



S

Same Shape (URG Unit 7 pp. 18, 19, 20; SG p. 167)

Two objects in the plane are the same shape if a photograph of one of them can be enlarged or shrunk so that it matches exactly with the other.

Sample (URG Unit 13 pp. 16, 37)

A part or subset of a population.

Scale (URG Unit 10 p. 19)

A graduated series of spaces marked by lines, dots, or numbers and is used for measuring distances, amounts, or quantities.

Side (URG Unit 15 p. 17)

See edge.

Skinny (URG Unit 6 p. 36)

A block that measures $1 \text{ cm} \times 1 \text{ cm} \times 10 \text{ cm}$.

It is one of the base-ten pieces that is often used to represent 10.



(See also base-ten pieces.)

Slide (URG Unit 15 pp. 4, 29; SG p. 425)

A motion a geometric figure in the plane by that moves every point of the figure the same distance in the same direction. Also called a translation.

Sphere (URG Unit 17 p. 20)

A three-dimensional figure that is made up of points that are the same distance from one point, the center. A basketball is a common object shaped like a sphere.

Square (URG Unit 4 p. 26 & Unit 15 p. 22)

A rectangle that has four sides of equal length.

Square Centimeter (sq cm) (URG Unit 16 p. 19)

The area of a square that is 1 cm long on each side.

Standard Unit of Measure (URG Unit 5 p. 28)

Universally accepted quantities used in measuring variables, e.g., centimeters and inches are standard units used to measure length and square centimeters and square inches are used to measure area.

Sum (URG Unit 3 p. 38)

The answer to an addition problem.

Survey (URG Unit 19 p. 23)

An investigation conducted by collecting data and then analyzing it.

T

Tally Marks (URG Unit 2 p. 41)

A way of recording a count by making marks. Tallies are usually grouped in fives, |||| .

Thinking Addition (URG Unit 2 pp. 4, 55)

A strategy for recalling subtraction facts that uses a related addition fact. For example $15 - 7 = 8$ because $8 + 7 = 15$.

Three-Dimensional Shapes (URG Unit 17 p. 20)

An object in space that is not contained in any plane.

Tick Marks (URG Unit 6 p. 21)

Marks on a number line or axis to indicate the position of a certain number.

TIMS Laboratory Method

A method that students use to organize experiments and investigations. It involves four components: picture, data table, graph, and questions. It is a way to help students learn about the scientific method.

Transformation (URG Unit 15 p. 4)

See slide, flip, or turn.

Translation (URG Unit 15 p. 5)

See slide.

Trapezoid (URG Unit 15 pp. 17, 22)

A quadrilateral with exactly one pair of parallel sides.

Triangular Prism (URG Unit 17 p. 20)

A prism with a triangular base.



Triangular Pyramid (URG Unit 17 p. 20)

A pyramid with a triangular base.



Turn (URG Unit 15 pp. 4, 29; SG p. 426)

See rotation.

Two-Dimensional Shapes (URG Unit 17 p. 20)

Shapes in the plane.

U

Unit (of measurement) (URG Unit 10 p. 19 & Unit 16 p. 26)

A precisely fixed quantity used to measure. For example, centimeter, foot, kilogram, and quart are units of measurement.

V

Value (URG Unit 13 pp. 4, 16)

The possible outcomes of a variable. For example, red, green, and blue are possible values for the variable *color*. Two meters and 1.65 meters are possible values for the variable *length*.

Variable (URG Unit 4 p. 18 & Unit 13 pp. 4, 16)

1. An attribute or quantity that changes or varies.
2. A symbol that can stand for a variable.

Vertex (URG Unit 17 pp. 4, 28)

The common endpoint of two rays or line segments.

Vertical Axis (URG Unit 2 p. 42)

In a coordinate grid, the y-axis. It is perpendicular to the horizontal axis.

Volume (URG Unit 6 pp. 5, 54, Unit 7 pp. 4, 24 & Unit 10 p. 48)

The measure of the amount of space occupied by an object.

W

Weight (URG Unit 8 p. 4)

The measure of the pull of gravity on an object.

Whole (URG Unit 14 p. 17)

A chosen unit in a discussion of fractions.

Width of a Rectangle (URG Unit 16 p. 33)

The distance along one side of a rectangle is the length and the distance along an adjacent side is the width.

X

Y

Z