

MATH WORDS IN MOTION

Bill Atwood

TEACHING AND REVIEWING CRITICAL MATH
VOCABULARY

Welcome

This PowerPoint is meant to accompany the DVD:
Math Words In Motion by Bill Atwood

Here are the complete lists of math words that
appear on the DVD.

Organization

- There are approximately 274 words
- 3 word lists for K-2 (114 words)
- 3 word lists for 3-5 (99 words but only 75 new words)
- 3 word lists for 6-7 (85 words but only 54 new words)
- 1 word list for grade 8 and beyond (36 words but only 31 new words)

How to Start

- Explain to your class why adding a gesture or picture of a math word helps memory
- Watch the video
- Practice the motions with your class
- Use the motions as a reminder when solving problems
- Play games like Charades, Simon Says, or do brief warm up with the words
- Quiz students on the words; challenge them to see how many they can remember, draw, or use in word problems
- Take photos of students acting out the words, and post the photos on a word wall

Kindergarten – Grade 2

Word List: *Measurement and Data*

- | | | | |
|-----------------------|------------------|------------------|---------------------|
| 1. meter | 14. milligram | 27. quarter past | 40. title |
| 2. yard | 15. 2 liter | 28. months | 41. key |
| 3. foot | 16. gallon | 29. week, day | 42. pictograph |
| 4. inch | 17. liter | 30. money | 43. line plot |
| 5. $\frac{1}{2}$ inch | 18. quart | 31. dollar \$ | 44. spread out data |
| 6. centimeter | 19. pint | 32. coin | |
| 7. millimeter | 20. cup | 33. penny | |
| 8. pound | 21. ounce | 34. cent ¢ | |
| 9. kilogram | 22. milliliter | 35. nickel | |
| 10. estimate | 23. temperature | 36. dime | |
| 11. approximate | 24. Fahrenheit | 37. quarter | |
| 12. ounce | 25. 12:00 | 38. tally mark | |
| 13. gram | 26. 12:15, 12:30 | 39. bar graph | |

Kindergarten – Grade 2

Word List: *Operations and Algebraic Thinking and Number Base Ten*

1. number
2. numeral
3. digits
4. ones place
5. tens place
6. hundreds
7. expand
8. number line
9. $\frac{1}{2}$, 1, $1\frac{1}{2}$, 2
10. $\frac{1}{4}$ fourth
11. sum
12. difference
13. subtract/take away
14. add up
15. add on
16. pattern
17. first, second, third
18. trading (convert)
19. number sentence
20. equation
21. break apart
22. put together
23. make a ten
24. greater than
25. less than
26. equal
27. divide
28. even
29. odd
30. array
31. show
32. what you know (in your head or in the problem)
33. what you need to find
34. steps
35. circle the answer
36. include the units
37. check it

Kindergarten – Grade 2

Word List: Geometry

1. solid
2. face
3. front
4. bottom
5. edge
6. corner
7. vertices
8. above
9. below
10. beside
11. next to
12. congruent
13. flat
14. rectangle
15. length
16. width
17. dimensions
18. diagonal
19. angle
20. open figure
21. closed figure
22. triangle
23. angle: acute, obtuse, right
24. parallel
25. intersect
26. perpendicular
27. parallelogram
28. trapezoid
29. rhombus
30. sphere
31. pyramid
32. cylinder
33. congruent: slide, flip, turn

Grade 3 – Grade 5

Word List: *Number and Operations Fractions;
Measurement and Data; Number System*

- | | | |
|------------------------|-----------------------------|------------------------------------------|
| 1. fraction bar | 30. length* | 22. Celsius/Fahrenheit |
| 2. numerator | 31. width* | 23. positive negative integers |
| 3. denominator | 32. dimensions* | 15. formula |
| 4. half, third, fourth | 33. area | 16. protractor |
| 5. unit fraction | 34. perimeter | 17. circle (large for measuring angles)* |
| 6. divide | 35. prism | 15. degrees* |
| 7. divisor | 36. faces, edges, vertices* | 16. line plot |
| 8. dividend | 15. volume | 17. plot |
| 9. quotient | 16. meter, yard, foot* | |
| 10. number line* | 17. inch, cm, mm* | |
| 11. improper fraction | 18. kg, g, ounce, mg* | |
| 12. mixed number | 19. liter, gallon* | |
| 13. decompose | 20. convert | |
| 14. Venn diagram | 21. temperature* | |
| 29. rectangle* | | |

* Indicates a word introduced at an earlier grade level

Grade 3 – Grade 5

Word List: *Geometry*

- | | | |
|-----------------------------------|--------------------------|------------------------|
| 1. parallel* | 14. equilateral triangle | 28. plot (over and up) |
| 2. perpendicular* | 15. isosceles triangle | 29. ordered pair |
| 3. intersect | 16. scalene triangle | 30. parallelogram* |
| 4. symmetry | 17. circle* (large) | 31. trapezoid |
| 5. point | 18. 360 degrees | 32. rhombus |
| 6. line segment | 19. 90 degrees | |
| 7. line | 20. 180 degrees | |
| 8. ray | 21. semicircle | |
| 9. angle: right, obtuse
acute* | 22. symmetry | |
| 10. protractor/circle | 23. congruent | |
| 11. 90 right triangle | 24. coordinate grid | |
| 12. obtuse triangle | 25. 2 column table | |
| 13. acute triangle | 26. X axis | |
| | 27. Y axis | |

* Indicates a word introduced at an earlier grade level

Grade 3 – Grade 5

Word List: *Operations and Algebraic Thinking and Number Base Ten*

- | | | |
|---------------------|------------------------------|----------------------|
| 1. multiple | 14. parenthesis | 26. expand* |
| 2. common multiples | 15. commutative | 27. tenths |
| 3. multiply | 16. associative | 28. hundredths |
| 4. factors | 17. distribute | 29. variable |
| 5. factor pairs | 18. factor out | 30. in-out box/table |
| 6. prime | 19. number line* | |
| 7. divide* | 20. rounding | |
| 8. division | 21. estimate* | |
| 9. divisor | 22. approximate* | |
| 10. dividend | 23. pattern* | |
| 11. quotient | 24. digits* | |
| 12. divisible | 25. hundreds, tens,
ones* | |
| 13. remainder | | |

* Indicates a word introduced at an earlier grade level

Grade 6 – Grade 7

Word List: *Expressions and Equations; Geometry*

1. exponent
2. base
3. squared
4. cubed
5. variable
6. coefficient
7. distribute*
8. factor out
9. parenthesis*
10. quotient *
11. sum*
12. difference*
13. rectangle*
14. area*
15. perimeter*
16. length width*
17. triangle*
18. altitude
19. base
20. perpendicular*
21. circle (small)
22. diameter
23. radius
24. circumference
25. area of circle
26. pi
27. solid*
28. race*
29. edge*
30. vertices*
31. surface area
32. volume*
33. sphere
34. net
35. views (front, top, side)
36. right angles*
37. bisector
38. complimentary
39. supplementary
40. straight angle

* Indicates a word introduced at an earlier grade level

Grade 6 – Grade 7

Word List: *Ratio and Proportion and the Number System*

- | | | |
|---------------------|-------------------------|---------------------------|
| 1. ratio | 14. mixed numbers* | 27. opposites |
| 2. 3:4 | 15. factor* | 28. absolute value |
| 3. percent % | 16. multiple* | 29. coordinate grid* |
| 4. percent increase | 17. common multiple | 30. quadrant |
| 5. percent decrease | 18. factor | 31. distance (difference) |
| 6. mark up/down | 19. factor tree | |
| 7. gratuities | 20. prime factorization | |
| 8. tax | 21. distribute* | |
| 9. interest | 22. decimals* | |
| 10. convert* | 23. repeating decimal | |
| 11. equal Ratio | 24. terminating | |
| 12. proportion | 25. number line* | |
| 13. fractions* | 26. integers* | |

* Indicates a word introduced at an earlier grade level

Grade 6 – Grade 7

Word List: *Statistics and Probability*

1. estimate*
2. approximate*
3. line plot*
4. spread out data
5. median
6. mean
7. mode
8. maximum
9. minimum
10. difference*
11. range
12. quartile
13. outlier
14. probability

Grade 8

Word List: All Strands

1. square root
2. cube root
3. positive slope
4. negative slope
5. zero slope
6. undefined slope
7. rise over run
8. coordinate grid*
9. x axis, y axis*
10. y intercept
11. x intercept
12. $y = mx + b$
13. m is slope
14. b
15. number line*
16. irrational
17. square root 2
18. congruent*
19. translate
20. reflect (over the y)
21. rotate
22. dilation
23. clockwise
24. counterclockwise
25. parallel*
26. transversal
27. vertical angles
28. alternate interior
29. alternate exterior
30. right angle
31. right triangle
32. hypotenuse
33. legs
34. slant height
35. scatter plot
36. line of best fit

* Indicates a word introduced at an earlier grade level

Additional Words Coming Soon: Grades Pre-k to 5

quadrilateral

pentagon

hexagon

octagon

year

kilometer

mile

rectilinear

Additional Words Coming Soon: Grades 8-10

like terms

45 45 90 triangle

30 60 90 triangle

tangent

parabola

vertex

solutions