

Mathematical Concepts in Microsoft Office: Ideas for applying, reinforcing, integrating math skills

Whenever possible use multiple representations for mathematical concepts, such as verbal, pictorial or symbolic

Word concepts

- Place value: <http://www.quia.com/rr/32598.html>
- Who Wants to be a Millionaire -type game:
http://www.softschools.com/math/worksheets/print_sheets3.jsp
- Quick worksheet on ordering of decimals-need 10ths and 100ths:
<http://www.mathsisfun.com/numbers/ordering-game.php> (I wouldn't use this web site with students as it is too distracting but you could make cards for students similar to the game, one set for each student, then have them exchange sets after each round.)

Reading a ruler to 8ths-every tech ed teacher I have worked with does this better than I do, so I will assume the same for you.

Fractions to decimals-charts for 8ths to decimals-I would have each student make a chart then make a bigger one for the classroom. I use money for $\frac{1}{2}$ and $\frac{1}{4}$.

Concepts of percents: <http://www.learnnc.org/lp/pages/3290> or <http://www.beaconlearningcenter.com/Lessons/2622.htm>; use M&Ms, also can be extended for graphs.

Rotations (1-360) focus on 90,180,270,360 (Classroom display). If your students are willing, have them stand facing any object in your room. Have them rotate 90 degrees, 180 degrees and 270 degrees. Do this both clockwise and counterclockwise. I have also used this interactive website with my students:
<http://illuminations.nctm.org/LessonDetail.aspx?ID=L466>

Common symbols on keyboard:

%, <, >, = (I think most students know these and those listed below, although they get confused about which is greater than and which is less than.

Common math symbols: common fraction and division, square root, approx equal to Pi, not equal, greater or less than equal, plus, minus

Spreadsheet concepts

- What is a formula?
- Area-I use square sticky notes to have students estimate then find the area (in square sticky notes) of their table top. This is a good place to review measurement and extend it to find the area of the objects around the room. I would allow them to use a calculator here and there so students would work on area and wouldn't get hung up if they had trouble multiplying whole numbers and/or fractions.
- Volume-ditto area, except use cubes.
- Order of operations: PEMDAS (Please Excuse My Dear Aunt Sally) Parenthesis, Exponents, Multiplication, Division, Addition, Subtraction. Worksheets: <http://www.teach-nology.com/worksheets/math/order/>

Mathematical functions (vocabulary):

Average, mean, maximum, minimum, sum, pi, power, round down, round up, product, square root.

Mathematical symbols:

\pm , \neq , $\sqrt{\quad}$ and any other symbols you may use from equation editor.