

Suggested Web sites and Additional Resources

The following list contains several Web sites and online resources for use with *Reconceptualizing Mathematics*, Third Edition. Both instructors and students will benefit from the innovative materials available to them.

For use with all four parts of *Reconceptualizing Mathematics*:

www.macmillanlearning.com/reconceptmath3e

This complimentary site provides students with access to study tools and instructors a range of additional resources.

<http://crmse.sdsu.edu/nickerson>

The video clips for *Reasoning About Numbers and Quantities* and *Reasoning About Shapes and Measurement*, the Over and Back applet used in *Reasoning About Algebra and Change*, and the Geogebra lessons available for *Reasoning About Shapes and Measurement* can all be found at this site.

<http://www.nctm.org/>

This is the home site of the National Council of Teachers of Mathematics. NCTM publishes two journals you might be interested in: *Teaching Children Mathematics* and *Mathematics Teaching in the Middle School*. This teacher member organization also publishes many books that you might find of interest. Go to their Journals and Books division. And of course, you are welcome to join. All information about membership is on this site.

<http://illuminations.nctm.org/>

This site has many activities and lessons, information about the NCTM Standards, and web links for all areas of the mathematics curriculum and for all grade levels. Many of them are used in *Reconceptualizing Mathematics*.

<http://nces.ed.gov/nationsreportcard/>

The National Assessment of Educational Progress (NAEP) provides national and state profiles in mathematics (and other subject areas) together with sample questions in all areas of the mathematics curriculum. This site is run by the National Center for Education Statistics at the U.S. Department of Education.

<http://nces.ed.gov/timss/>

Trends in International Mathematics and Science Study (TIMSS) provide results of international examinations and ranking of countries. Assessment items in all areas of the mathematics curriculum can be found on this site.

<http://mathforum.org/library/> and <http://mathforum.org/students/elem/>

These Internet Mathematics Library sites contain many mathematics topics, resource materials, and mathematics education topics at all grade levels.

<http://www.pisa.oecd.org/>

The Programme for International Student Assessment focuses on 15-year-olds and their performance in different areas (such as mathematics and science) deemed important for a productive role in society. Mathematics is tested periodically around the world.

<http://education.ti.com/educationportal/sites/US/sectionHome/tutorials.html>

This site has tutorials on using the TI- graphing calculators.

For use with Part I: Reasoning About Numbers and Quantities:

<https://www.youtube.com/watch?v=0fKBhvDjuy0>

This short but powerful video of about 10 minutes on powers of ten is well-known and can be found at other sites by Google searching “Powers of Ten.” Students should be required to see it while studying place value in Chapter 2.

For use with Part II: Reasoning About Algebra and Change:

There’s an exceptional site (Phet) housing interactive simulations of physical phenomenon useful for mathematically investigating change.

<http://phet.colorado.edu/en/simulation/moving-man>

The Moving Man is an interactive simulation that plots the motion of a man. It can be used to supplement the motion detector activities. If you don’t have motion detectors, it is the next best thing.

<http://phet.colorado.edu/en/simulation/pendulum-lab>

Play virtually with pendulums to see how the length of the string, the mass of the bob, and the amplitude of the pendulum affect the period of the pendulum swing. Students can use this for the exercise in Section 13.1.

For use with Part III: Reasoning About Shapes and Measurement:

<http://www.learner.org/interactives/index.html>

This is the site of Annenberg Media Learner.org. All topics at a variety of grade levels contain some mathematics explorations. The Geometry 3D Shapes fit well with *Part III: Reasoning About Shapes and Measures*.

http://agutie.homestead.com/files/art_math_geometry.htm

This agutie.homestead site has become quite commercialized, but continues to contain some fascinating geometry work, particularly as related to the Incan civilization.

For use with Part IV: Reasoning About Chance and Data:

<http://www.amstat.org/education/gaise/>

This site contains the Guidelines for Assessment and Instruction in Statistics Education (GAISE) from the American Statistical Association.

<http://people-press.org/> and <http://pewresearch.org/>

The Pew Research Center is a rich source of data and statistical graphs of various kinds.

<http://mathforum.org/workshops/sum96/data.collections/datalibrary/data.set6.html>

There are many useful sets of data here. But also, under Other Sources of Data, you will find many other websites with data, such as the Gallop Organization, the Census Bureau, the Baseball Archive, and many more.

There are many government sites that contain interesting data. Among them are:

- <http://www.census.gov/>
This site has a great deal of interesting data, particularly surrounding the 2010 census. Also see Related Sites on the census web site for many more interesting sites.
- <http://www.bea.gov/>
Bureau of Economic Analysis
- <http://www.cdc.gov/DataStatistics/>
This Centers for Disease Control and Prevention site offers a variety of statistics and graphs pertaining to health.

The United Nations also gathers a great deal of data that are interesting and useful, such as that to be found at:

- <http://www.un.org/popin/>
United Nations Population Information Network
- <http://www.un.org/esa/population/>
Department of Economic and Social Affairs, Population Division