

Modern math classes are based on the [Arizona State](#) (Arizona State Department of Education), [NCTM](#), (National Council of Teachers of Mathematics) and [AMATYC](#) (American Mathematical Society for Two-Year Colleges) standards, are characterized by hands-on experiences, lab activities, use of calculators and computers, and real life applications. They are usually called "Modern" as opposed to "Old" math classes.

The differences are summarized below:

| What is Modern Math | What is Old Math? |
|---------------------------------|----------------------------|
| Active Learning | Teacher Lectures |
| Student Centered | Students Listen |
| Cooperative groups | Memorizing Rules |
| Constructing Models | Practicing Procedures |
| Understanding Concepts | Working Drill Problems |
| Real World applications | Manipulating Symbols |
| Using Calculators and Computers | Pencil and Paper Solutions |

Most K-8 students are being taught modern math in the classroom. High school students need it for success on the AIMS test (the Arizona required test for graduation from high school). Parents who attend college request it to help their children with math homework. Although a shortage of K-12 math and science teachers has led to retaining some teachers who have not been trained in the new skills, K-12 teachers who teach only old math are being phased out whenever possible in favor of those who can teach modern math.

There is a nationwide attempt to upgrade our educational system to remain competitive in the global marketplace of the Information Age. We do our students a disservice to offer them 500-year-old curriculum and teaching methods. Students who opt for traditional classes under the assumption that older is always better, deprive themselves of the opportunity to be competitive in the age of technology where numbers are ubiquitous.

Whether we like it or not we have computers and calculators now, and the business world demands the use of them on real life applications. Educators of conscience should encourage students to prepare themselves for their future in a world where numbers are increasingly the tools of decision- making.

For more information see Shay Cardell's web site at www.cardells.net