

## Christa Rawlings

### Place Value and Really BIG Numbers

#### Looking at the Heroic Qualities of Place Value

1. Introduce Heroic Qualities
2. Introduce the concept of really BIG numbers by looking at various place value periods. For example Units, Thousands, Millions, Billion, Trillions, Quadrillions etc etc etc.
  - a. Apartment buildings - Digits vs Value
  - b. Practice reading really BIG numbers using file folder periods and playing cards
3. Going even bigger
  - a. Discuss Archimedes his work The Sand Reckoner 287BC
    - i. myriad and vigintillion
    - ii. have a race to write a vigintillion
4. How big can numbers get?
  - a. Edward Kasner and his nephew Milton – googol
  - b. Finite/infinite or googolplex/pi
5. Practicing with really BIG numbers and Place Value
6. Participants choose a Heroic Quality for Place Value.