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Martin E. Walter* (martin.walter@colorado.edu), Dept. of Mathematics, Campus Box 395, University of Colorado, Boulder, CO 80309. *Necessary Environmental Numeracy for a Successful Society*. Preliminary report.

Effective citizenship requires a basic understanding of a few concepts which are essentially mathematical. A dishonest representation of risk, a mathematically quantifiable concept, is at the heart of recent economic troubles. The statement of the “Carbon Dioxide Greenhouse Law” of Arrhenius involves nothing more complicated than logarithms, yet it is seldom mentioned. Ignoring this law makes as much sense as ignoring gravity, with similar results. Hubbert’s analysis of non-renewable resources likewise is being ignored at our peril. Society’s decision makers need to be held accountable by an informed population whenever they ignore(violate) these and other basic facts(laws) of Nature that are essentially mathematical. (Received September 18, 2009)