

1086-97-2599

Robert E. Megginson* (meggin@umich.edu), 3301 E. Dobson Pl., Ann Arbor, MI 48105.

Mathematical sense and nonsense in the public conversation about the future of Planet Earth: How do we help our students tell the difference? Preliminary report.

Many areas of the public dialog about the future of our planet, particularly those involving climate change, have become highly politicized, contentious, and confusing to the general public. As a discipline, mathematics often puts forth the idea that one of its great values is that it helps teach students to think logically. In the area of climate science in particular, but in STEM applications to our planet more generally, we are not always succeeding as well as we should, judging from some of the mathematically fallacious arguments that appear and are accepted in that public dialog. In this talk, some examples will be given, along with the portions of the Standards for Mathematical Practice that address this very issue, with the hope that we can have a conversation about how the Standards provide a tool for addressing this matter at every grade level. (Received September 25, 2012)