1084-97-325 **G. Arthur Mihram***, P.O. Box No. 1188, Princeton, NJ 08542-1188, and **Danielle Mihram**, Univ Sthrn Calif: LVL-113, 650 W. 35th St: #113, Los Angeles, CA 90089-2571. *Teaching Mathematics: If it's Not Science, Is it Neither Necessary Nor Sufficient for Science?* Preliminary report.

Mathematics teachers may, in Quinn's conclusion [NOTICES, AMS 59: 31, 2012], heighten students' interest: Mathematics is not science since Science [being that human activity devoted to providing the very explanation for (i.e., the truth about) any particular naturally occurring phenomenon] requires a 'model' for any explanation. But, such a model achieves the status of a [scientific] truth only if the explanation concurs with observations subsequently made outside the text (the model) in Nature. Yet, mathematics, in seeking truth, looks internally (the search for logical error within the 'model'). So, is mathematics either necessary or sufficient for Science? First, mathematics is not necessary: e.g., Darwin's ORIGIN OF THE SPECIES contains no mathematical structure, only its logical rectitude vis-à-vis Nature. Secondly, our mathematics is not sufficient for Science: Euclid's ELEMENTS makes no reference to real-world phenomena, yet reaches irrefutable 'truths' (conclusions: 'QED'), but only regarding mental constructs [points, lines, circles, triangles. e.g.]. Teachers of mathematics can appreciate, indeed, that mathematics [itself an art (language), not a science] serves ideally to discipline the mind, a quite welcome attribute for any student ready to enter citizenship. (Received September 04, 2012)