Steven R Benson* (sbenson@lesley.edu), Division of Natural Sciences and Mathematics, Lesley University, 29 Everett St, Cambridge, MA 02138. Ways to Think About Mathematics: A Habits of Mind Approach for Teachers and other Mathematicians. Preliminary report.

Starting with problems having low thresholds and high ceilings, we encourage collaborative exploration, giving students the time to ponder, experiment, conjecture, and construct their own careful mathematical justification for their claims. This problem-centered approach gives students the opportunity to actually do mathematics by thinking like a mathematician, thus providing a model for teachers working with their own students. Though the model and materials were initially developed with preservice and inservice teachers in mind, we have been successful in using the approach in upper level mathematics courses for all students. Experience, recommendations, and resources will be shared. (Received September 25, 2012)