In a capstone course for math majors that want to teach, we have as one of our goals to create appropriate learning environments that support the fostering of the Mathematical Habits of Mind. We will share several of the tasks presented to the students, their meta-analysis and some of the students’ reflections as participants but also as future teachers. The tasks are diverse in the mathematical contents they rely on, their level of cognitive demand and the tools used. The Standards of Mathematical Practices - as described by the Common Core Standards - will also be highlighted in the analysis of each task. We will also discuss the students’ attempts to transform a traditional textbook-oriented lesson into a MHoM oriented one. (Received September 12, 2012)