Most of the attrition from STEM majors occurs between the first two semesters of calculus, and prospective life science majors are one of the groups with the highest attrition rate. One of the largest factors for students that persist in STEM major beyond the first semester of calculus was a sense of community and a perceived connection with their instructor. Since building a sense of community is one of the stated purposes of formative assessment, we investigated to what extent formative assessments could help build a sense of community in a calculus for life science majors course. This talk will discuss two cases of formative assessment used in two sections of this course. When implemented as intended, the formative assessments completed weekly by the students made a positive contribution to students’ sense of classroom community and their perceived connection with their instructor. (Received September 16, 2013)