Martha H Byrne* (byrnema@earlham.edu), Earlham College, Drawer 138, 801 National Rd W, Richmond, IN 47374. Using Games to Engage Students in Inquiry.

The success of inquiry-based learning courses rests upon the engagement of the students; they have to want to understand in order to work with the material at the level that will promote understanding. This talk will focus on sharing the mathematics of games as discovered in an inquiry-based course at a small, liberal arts college. In the course, students formed conjectures and sought resolution as individuals with the support of the instructor and the classroom community. The mathematics addressed will include modular arithmetic, geometry, binary operations, and graph theory. The presenter will share ideas on how to get students to engage with these mathematical topics through inquiry in the context of exploring several well-known games. (Received September 15, 2014)