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Together with our students in “Explorations of Mathematics,” a course for Liberal Arts majors, we have been exploring the mathematics of games and puzzles for a number of years now. Among the most successful topics with students are the Rubik’s Cube, Hex strategy games, Sudoku puzzles, and paper-folding puzzles. The audience will have an opportunity to explore the mathematics of a few sample activities inspired by Eric Demaine’s work on straight-cut origami from our inquiry-based learning guide “*Discovering the Art of Mathematics: Games and Puzzles*,” so come ready to play!

We find a number of strengths with this material: triggers for mathematics anxiety are avoided; success with the Rubik’s Cube changes students’ self-image; natural curiosity and competitiveness fuel the inquiry into game strategies (e.g. Hex); sophisticated, multi-step logical arguments arise organically (e.g. Sudoku); working with physical objects provides concrete models that supports thinking, reasoning, and communicating mathematics; symbols and notation arise as convenient means to clearly communicate mathematical thinking; “pressing the math” occurs through a focus on students reflecting on and explaining their reasoning. (Received September 22, 2010)