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**Edmund A Lamagna\*** (eal@cs.uri.edu), Dept of Computer Science and Statistics, University of Rhode Island, Kingston, RI 02881. *Puzzles + Games = Mathematical Thinking*.

Puzzles and games form the basis of a freshman seminar designed to develop mathematical and computational problem solving skills. The desired learning outcomes include: 1) helping students transition from high school to college, 2) motivating and creating excitement for the further study of mathematics, computer science, and other STEM subjects, 3) allowing students to work in small groups on fun, interesting problems, 4) introducing mathematical and computational problem solving strategies not typically encountered in high school or college, 5) instilling the confidence and persistence needed to solve complex, difficult problems, and 6) encouraging “out of the box” thinking and applying alternative problem solving strategies.

Each session begins by introducing a set of puzzles of a particular type or a game illustrating a particular principle. Students spend most of the period in small groups solving the puzzles or playing the game. Toward the end of class, students present and discuss their solutions with guidance from the instructor.

Topics include sequential movement, figurative numbers, proofs without words, probability, logic, number systems, algorithms, recursion, and graphs. Among the games played are Clue, Mastermind, and Ticket to Ride. (Received September 06, 2013)