1067-F1-2188 **Ted Theodosopoulos*** (ttheodosopoulos@saintannsny.org), 60 Wyckoff Street, Brooklyn, NY 11201. Problem solving paradigms for mathematical research. Preliminary report.

In this talk I describe the ways I use a math circle type problem solving seminar to inspire and cultivate a mathematical research culture. Examples are described that illustrate the seamless transition from problems through conjectures to research projects, stemming from our sessions on calculus and differential equations, geometric inversion, point set topology, vector algebra, combinatorial geometry and cellular automata. (Received September 22, 2010)