Kaitlyn Phillipson* (kaitlyn@math.tamu.edu), Texas A&M-Department of Mathematics, 3368 TAMU, College Station, TX 77843, and Frank Sottile, Alex Sprintson and Philip B. Yasskin. From 5th to 12th: Discoveries and Challenges of Multi-leveled Math Circles.

The TAMU Math Circle started in 2011 as an after school club. After one semester, it moved to Texas A&M, and opened to all local schools for grades 5th through 8th. Last year, due to interest from older students in continuing to participate in Math Circle, we expanded to include high school-level students. We are also feeling pressure to let in advanced 4th grade students. TAMU Math Circle’s biweekly meetings begin with 30 minutes of unstructured activity, followed by splitting the students into 3 groups (pre-Algebra, Algebra 1 and above, Algebra 2 and above), each participating in a 90-minute directed activity. This talk will discuss the challenges in creating activities appropriate for each group. The Art Gallery Problem will be used as a running example throughout the talk. (Received September 21, 2015)