1086-P5-571 Carolyn Yackel* (yackel_ca@mercer.edu), 1400 Coleman Ave., Dept. of Mathematics, Macon, GA 31207. Developing Riemann Sums via a Paper Shredder. Preliminary report.

We discuss an activity in which students cut interesting shapes out of colored paper, try to naively estimate their areas, and then approximate the areas after running the shapes through a paper shredder. This activity gives a natural entry point for discussion of many issues surrounding Riemann sums for from the most obvious (e.g., the formula and the limit) to the quite subtle (e.g., differing partition sizes). Details and variants of the activity will be included. (Received September 07, 2012)