1046-J1-328 **Anne M. Burns*** (aburns@liu.edu), Department of Mathematics, Long Island University, C.W. Post Campus, Brookville, NY 11548. *Fractal Gardens.* Preliminary report.

The recursive nature of plant growth and other branching structures makes it an excellent topic for a course in Math and Art. Using mathematics that can be understood by an undergraduate mathematics major, four models of plant growth will be described. Using geometry, trigonometry and probability, a small number of rules can be applied recursively to produce a variety of fractal trees and inflorescences, revealing the importance of parameters in modeling. The concentration will not be on scientific accuracy, but rather in the production of art and the use of the methods in education. The result will be an animated growth of a "fractal garden". (Received August 26, 2008)