Loops and Randomness: Lather. Rinse. Repeat.

Review nested loops (sea of spheres)

Mapping values from one range to another
- multiply for spacing
- add for offset
- examples:
  - index/counting (space out spheres)
  - sine wave (make waves - ty)
  - randomness (jitter X and Z)

Randomness - [http://docs.python.org/library/random.html](http://docs.python.org/library/random.html)

Example: Use random.random() and random.uniform() to “jitter” and to “bomb” the spheres

Challenge: Using a building function, model a city block with random building heights - copy stamping!

Example: iterate over components of a model (vertices)

**Assignment**
Write a script to copy stamp and scatter your vegetation across a terrain

**Further Reading**
[Texturing and Modeling: a procedural approach](http://example.com) by Ebert, Musgrave, Peachey, Perlin, & Worley

**Preview:** Bouncing ball

April 13th: last day to drop without a “W”