Lesson 1 Quiz: Experimental Design

You have heard that tomatoes are better at withstanding drought than lettuce. Design an experiment to test this assertion. You may use diagrams in your answer.
Lesson 1 Quiz Key

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Ideal Answer
I would plant 10 different varieties of tomato plants and 10 different varieties of lettuce plants. For each variety I would plant 10 seeds for a total of 100 tomato plants and 100 lettuce plants. Each of the plants would be planted at a random location in a large garden.

All of the plants would be well watered until they were 3 weeks old, at that point I would stop watering half of the tomato plants and half of the lettuce plants. At the end of 6 weeks I would harvest all of the plants and weigh them to see if the how well the unwatered lettuce and the unwatered tomatoes did compared to the well watered plants.

Rubric

Experiment Includes:

Treatment 3pts
Control 3pts
Replication 3pts
Randomization of plant location or multiple varieties 1Pt

Total :10pts