Instructions for Demonstration

I. Background information:

1. The standard that our demonstration represents is 6th Grade SEED standard 6.4.5: Evaluating competing design solutions for preserving ecosystem resources and biodiversity based on how well the solutions maintain stability within the ecosystem. The two scientific principles that our demonstration represents are the scientific method and water filtration. Our emphasis will be in the design aspect to aid and effort to preserve ecosystem resources in our case being water. In our case being water, many Utah homes currently utilize a grass lawn as their primary form of landscaping.

II. Necessary Materials:

1. Mason Jars or Plastic Cups (Walmart)
2. Gravel, Topsoil, and Sand (Home improvement store such as Home Depot or Lowes)
3. Dirt from chosen location
4. Water
5. Timer (Phone or Computer)
6. Provided worksheet

III. Procedural Instructions:

1. Make a hypothesis using worksheet.
2. Fill four cups with a sample of each dirt type to an equal level.
3. Fill water cup to your choice of a controlled water amount.

4. Pour water into sand cup and Wait 5 minutes. Pour excess water off and make observations.
5. Pour water into topsoil cup and Wait 5 minutes. Pour excess water off and make observations.
6. Pour water into gravel cup and Wait 5 minutes. Pour excess water off and make observations.
7. Pour water into random soil cup and Wait 5 minutes. Pour excess water off and make observations.
8. Make conclusion based off of observations using worksheet.

IV. Safety Precautions: Don't eat the soil samples.

V. Disposal Instructions: Pour used soil and water outside and dispose of plastic cups in the garbage.

VI. Citations:

1. SEEd Standard 6.4.5 from the Utah Education Network. https://cuwcd.com/education.html

   https://www.uen.org/development/usbe/science/index.shtml
2. All drawings/diagrams on worksheet were made by team members.