How to Plant a Tree to Improve Outdoor Spaces.



Aaron Zhang ENG 3050 v.1, 03/26/2018

#### **PURPOSE**

These instructions detail the steps involved with:

- 1. The planting of a tree.
- 2. The planting of flowers and surrounding greenery.

### **SCOPE**

These instructions do not teach you how to buy the necessary items required for the creation of such a garden and do not go into the detail of other steps required to make a garden.

Use other guides if you wish to pinpoint the exact tree you want or if you want to use different plants.

## **FORMAT**

The first section has a list of materials needed to create a starter garden along with additional equipment. It also includes the purpose of each item.

The second section has the instructions for creating a garden along with a table of common mistakes and solutions.

# Make sure to look for the tips in order to make your garden the best



# **Section 1: Required Materials and Equipment**

Shovel: To dig the hole in order to plant the tree



Gloves: To protect yourself near sharp objects and dirt.



**Tree Sapling** 



Stake: For holding the tree upright after planting, must be placed in the ground sturdily.



Rope or String: To wrap the stake and tree around.



<u>Trowel</u>: To dig holes for the flowers.



# Flowers:



Watering Can: To ensure further care of plants.



## **Section 2: Instructions and Common Problems**

In this section, you will find instructions about (I) Planting a tree, (II) Planting flowers, and (III) Further care of plants.

# (I) Planting a Tree

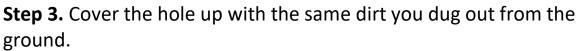
**Step 1.** Using the shovel, dig a circular hole one foot into the ground. Make sure the sides of the hole are sloped to allow easier access.



Make sure to survey the land before you plant your tree and that the area has ample sunlight and is fit for plant life.

Step 2. Place the tree into the hole with the root down first.







**Step 4.** Affix your stakes into the ground and tie the stakes to the tree, preferably at equidistant locations.



# (II) Planting Flowers

**Step 1.** Using your trowel, dig a smaller hole in the ground, just enough so that your saplings can fit. But not covering them.



Sticking your full index finger into the dirt will be a good estimation of how deep the hole should be.

**Step 2.** Place the sapling into the hole root first. Make sure that the sapling fits into the hole.





Step 3. Cover the hole with dirt, making sure not to cover the flower

**Step 4.** Make sure to consistently water the flowers after they have been planted. Flowers require more water than trees.



# **Trouble Shooting**

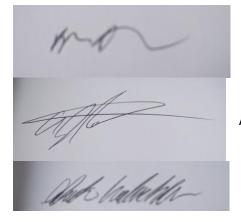
Problem	Possible Cause	Possible Solution
My tree/flower does not fit inside the hole.	The hole might be too small/big.	Incrementally increase or decrease the size of the hole until the plant can fit into the hole
My tree is leaning more to one direction	Uneven Stake placement	Make sure your stakes are equidistant to eachother
	Outside Causes	Move more stakes to the side opposite of where the tree is leaning
My plants are dying	Plants are suffering from a lack of sunshine.	There is nothing you can do except try to move the plants to a new area.  Make sure to pick a location that is not blocked from sunlight by the surroundings
	Plants are suffering from a lack of watering.	Make sure to water your plants more. Watering once a day is enough to keep them healthy

## Appendix: User Tests

#### **Results**

Due to the constraints of time, weather, and money. I was only able to test the instructions on

flowerpots.



Debarshi Majumdar

**Adam Siismets** 

Shesanth Ramakrishnan

Shesanth (20) had previous knowledge in helping his family work on their garden. After a light beratement of how deep to dig the hole for the flower, he managed to follow the instructions well after the first step.

Adam (20) had no previous knowledge about planting flowers but he had second hand knowledge from "watching a lot of YouTube videos about this stuff". Although the beginning was hard, it is generally easy enough to plant a flower and the user was able to follow the instructions without difficulty.

Debarshi (20) also had knowledge stemming from helping his family in the flowerbed and was able to carry out the instructions without any difficulty whatsoever.

#### **Findings**

Most of the users were able to carry out the task easily. Planting flowers proved to be a trivial task as the steps were straightforward. I changed a tip and part of the instructions in order to be more specific of how deep you should dig the hole. People might've gotten confused and buried the entire plant if not careful. Overall, the users who I tested these instructions on were well versed in nature and had no problem.

#### **Conclusions**

As expected, planting a tree or planting flowers is an easy task to do and all my users managed to follow the instructions with little to no difficulty. However, it is hard to state how much of their knowledge came from my instructions themselves and how much came from their backgrounds.

#### Sources

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