

# What a plant needs... To GROW!

## 5 THINGS A GARDEN NEEDS:



Sun



Water



Air



Space



Soil

Bonus: Love  
& Maintenance

### 5 THINGS A GARDEN NEEDS:

**Air** –When human’s/animals breath, they breath IN oxygen and breath OUT carbon dioxide.

Plants breathe too, but they breath IN the carbon dioxide, and breath OUT Oxygen –This is why plants are so important, not only do they feed us. They make the oxygen that we need to survive!

**Sun** - Plants are so awesome for so many reasons, but one of the coolest things a plant can do is make its own food! To do this, plants need the energy created by the light of the Sun for a process called Photosynthesis.

Photosynthesis is how plants convert carbon dioxide (what we breath OUT and plants breath IN) into their food. This process takes place in the leaves of the plant. The ingredients needed for this process are sunlight, water, carbon dioxide and chlorophyll (the pigment that makes plants appear green, this pigment helps the plant absorb the light).

**Water** - Just like humans, plants need both food and water to survive.

Plants drink ALOT of water, they suck it up through the soil using their roots. The water travels up the stem (just like a straw!) bringing nutrients from the soil to the plant.

Water is also one of the special ingredients in photosynthesis. Water gets pulled up into the leaves and as it evaporates, carbon dioxide gets pulled in!

**Space** – Everything needs space to grow! Plants need space to spread their roots and leaves out so they can absorb all light, water, and nutrients that they need. If plants are too close together, they have to compete for those resources. It’s the one time that sharing doesn’t work.

**Soil** - Our soil contains the nutrients that help our plants grow healthy and strong.

# PLANT OUR SEEDLINGS

Please complete Window Greenhouse activity from week 1.

## MATERIALS

Potting soil – seedling mix

Container/Pot/Peat Pot(using a nursery pot will allow for easy transplanting)

Water

Mixing Bowl

Sprout/Seedling



## INSTRUCTIONS

- 1) Find the right container- You can use almost any container to start seedlings in, it should be at least 3” deep and have holes at the bottom for drainage.
- 2) Prepare your soil- Give your sprout/seedling the best start by picking the right soil, do not use soil from your garden! Pour 3 cups worth of seedling starting soil into a bowl. Break up any clumps and mix in a little water, mixture should be damp but not soupy.
- 3) Fill containers with soil  $\frac{1}{2}$  -  $\frac{3}{4}$  of the way to the top(depending on sprout/seedling size)
- 4) Gently place sprout/seedling in the center, support with two fingers as you add soil around the root. Fill until sprout/seedling can stand on its own(soil should stop just below its bottom leaves. If planting a sprout, plant just below the surface.
- 5) Watch and water!

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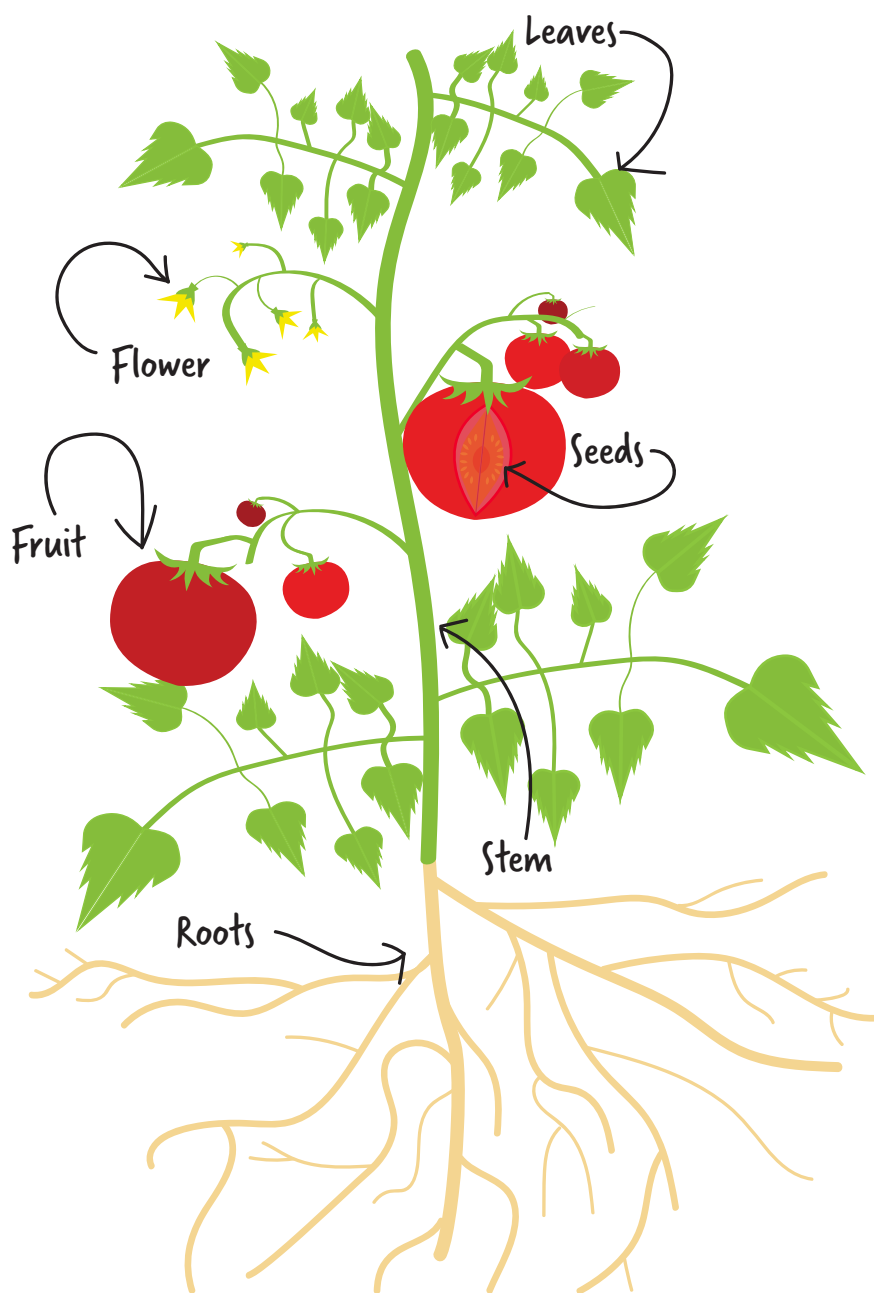
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# PARTS OF THE PLANT AND HOW THEY WORK?



**Seed** – Sometimes inside the flower, sometimes inside the fruit, but always the part of the plant we like to save to grow more plants next year!

**Flower** – A colourful part of the plant, so that it attracts pollinators like bees and butterflies!

**Fruit** – not every plant grows fruit, but when they do, it's often the part we eat – like tomatoes!

**Leaves** – Turn energy from the sun into food for the plant to eat; acts as the plant's lungs, breathing in carbon dioxide, and breathing out oxygen.

**Stem** – Acts like a drinking straw and carries the water and nutrients up to the other parts of the plant.

**Roots** – Drink up the water and nutrients from the soil; keep the plant from falling over; they reach deeper and further into the ground as they grow, which is why they need space!

## DRINKING FLOWER EXPERIMENT

### MATERIALS

Two white carnations

Food colouring

2 clear cups-with water

### INSTRUCTIONS

- 1) Trim  $\frac{1}{2}$  off both stems place in separate cups.
- 2) Add a few drops of food colouring to one glass.
- 3) Watch and record the results.

