

Maya's Planting Science Journal

March 22 2018- Today our group cut our seeds into $\frac{1}{2}$, took off the outer shell from and left some full. We also planted 2 seeds in each cup (2 of the $\frac{1}{2}$ per cup) 1 inch deep and $\frac{3}{4}$ cup of planting soil. We are going to water them every Tuesday and Thursday. We will give them $\frac{1}{2}$ an inch of water on those days.

March 26, 2018- Today we had sprouts in 10 of the 15 cups. We also changed the days we are going to water them. We will now water them Monday and Thursday. We measured each sprout and found the average for each group. The average for each one is...

- Without the outer shell- 1.3 cm
- Full- 1.4 cm
- $\frac{1}{2}$ - .2 cm

March 27, 2018- Today we measured the growth of our plants. We recorded the averages for each experimental group.

- Without the outer shell- 2.45 cm
- Full- 3.7 cm
- $\frac{1}{2}$ - .5 cm

March 28, 2018- No data to record

March 29, 2018- Today we watered the plants with $\frac{1}{2}$ an inch of water. We also recorded the averages for each experiment group. The averages are...

- Without the outer shell- 4 cm
- Full- 10.1 cm
- $\frac{1}{2}$ - 1.1 cm

March 30, 2018- Today we measured the plants. The averages for each experimental group are...

- Full- 12.7 cm
- Without the outer shell- 6 cm
- $\frac{1}{2}$ - 1.2 cm

April 2, 2018- Today we measured and watered the plants. Some plants aren't taking in the water right away. They are also starting to droop over. The averages for each group are

- Full- 24 cm
- Without the outer shell- 7.2 cm
- $\frac{1}{2}$ - 1.3 cm

April 3, 2018- Today we checked on our plants. One of our plants in the $\frac{1}{2}$ experimental has not taken in the water from yesterday. We recorded the averages as well. The averages are

- Full- 27.3 cm
- Without the outer shell- 10.6 cm
- $\frac{1}{2}$ - 1.4 cm

April 5, 2018- Today we watered our plants. We also measured our plants. We have popsicle sticks to hold up the plants. Some of the $\frac{1}{2}$ seeds are not taken in the water from today. The averages for today are

- Full- 32.5 cm
- Without the outer shell- 11.9 cm
- $\frac{1}{2}$ - 1.7 cm

April 6, 2018- Today we measured and observed our plants. The full ones seem to be growing faster but are really droopy. The without the outer shell are seem to take a longer time to grow but are growing stronger. The $\frac{1}{2}$ seeds aren't growing at all. The average was the same as yesterday for the $\frac{1}{2}$ seeds. Some of the plants aren't taking in the water right away. The average measurements are

- Full- 34.4
- Without the outer shell- 12 cm
- $\frac{1}{2}$ - 1.7 cm

April 9, 2018- Today we water our plants. We also took measurements and made observations. The averages for today are

- Full- 30.5 cm
- Without Outer Shell- 13.7 cm

- $\frac{1}{2}$ - 2 cm

April 10, 2018- Today we took measurements. One of the $\frac{1}{2}$ seeds cup has not taken in water. It is very water and the only $\frac{1}{2}$ seed that does not take in water. One of the fulls seeds looks and feels very dry even though we just water them yesterday. The averages for today are

- Full- 32.75 cm
- Without Outer Shell- 14.05
- $\frac{1}{2}$ - 1.95

April 11, 2018- No data taken

April 12, 2018- Today we watered our plants for the last time. The same seeds that would not take in the water now smell like rotten eggs. They smell like rotten eggs because we forgot to poke holes in the bottom of the cups before we started watering them. We had to poke holes in the bottom of the cups to drain the water. All the water starting collecting and when we poked the holes all the water drained out of the cup. We aren't taking measurements today since we had to drain them.

Conclusion:

Our hypothesis was partly correct. The seeds that contained the entire embryo did indeed grow. The half seeds didn't grow because the entire embryo was not intact. The seeds might not have grown because we didn't poke holes in the cup for water to drain out so they may have drowned. We think that maybe because they were smaller seeds, they could not absorb the water as easily as the others. Also we think that we may have made a mistake when we were measuring the plants towards the end because the height average went down. Our half plants did not grow but one, our without outer shell seeds grew mostly one plant per cup, and our full seeds grew mostly two plants per cup.

