

Three Sisters Planting	Grade 7 – Life Systems
Handout – Observation Sheet	

Container with Three Sisters		
Time Elapsed	Height of Plant	Other Observations
Week 1		
Week 2		
Week 3		
Week 4		
Week 5		
Week 6		
Week 7		
Week 8		

Container with Only Pole Beans		
Time Elapsed	Height of Plant	Other Observations
Week 1		
Week 2		
Week 3		
Week 4		
Week 5		
Week 6		
Week 7		
Week 8		

Container with Only Corn		
Time Elapsed	Height of Plant	Other Observations
Week 1		
Week 2		
Week 3		
Week 4		
Week 5		
Week 6		
Week 7		
Week 8		

Container with Only Squash		
Time Elapsed	Height of Plant	Other Observations
Week 1		
Week 2		
Week 3		
Week 4		
Week 5		
Week 6		
Week 7		
Week 8		

State your prediction.

Questions

1. Was your prediction accurate? If so, explain why.

2. In your opinion, is monoculture farming a better agricultural technique than polyculture farming? Why or why not?

3. The three sisters are normally planted during the month of May, please explain why.

- The earth is most moist during the month of May and allows for the corn seed to take in water quickly.
- The moisture will trigger enzymes that will help the corn embryo grow and allow the corn to emerge first from the soil.
- During this time, the bean seed will burst and send a rootling down to secure the emerging plant and join the corn which will have already grown six inches.

4. How does the legume (bean) benefit the nitrogen cycle?

- They transform nitrogen into usable nutrients.
- Their roots will form white nodules that is Rhizobium bacteria, which converts nitrogen.
- The bean will grow an oxygen free nodule in order to house the bacterium and in return the bacterium will share the nitrogen from the plant.