What Makes Plants Grow?

One of the three kidney friendly habits kids should do is choose water as their primary beverage. Our kidneys, muscles, skin and other organs all need water to function properly. You’ve may have heard that too much sugar from beverages like soda and juice is not good for your bodies, but maybe you want to see for yourself. This activity will help you see how important water really is for helping us, and other living things, stay healthy and grow.

**Appropriate for:**
Elementary or middle school age kids

**What you need:**
- Seeds, seedlings (very young plants), or plants (need at least 3)
  - Fast growing seeds include vegetables like beans and peas, radishes, watermelon, squash or pumpkin. Flower seeds like marigold, zinnia, poppy, morning glory or cosmos also germinate quickly, in less than 10 days.
  - You can speed germination of seeds by scratching the surface with sandpaper and soaking in warm water overnight.
- Potting soil
- 3 small pots or containers to hold your plants.
- Plant observation sheet

**Instructions:**
1. Plant your seeds, a few in each pot. Or if you’re using seedlings or plants, transplant them into the pots. (To save time purchase plants already potted in containers)
2. Label each pot–
   a. Pot A will receive regular water (watered daily or as needed, depends on the type of plant)
   b. Pot B will be “watered” with soda, kool-aid, juice drink, or sugar water. You can choose the sugary beverage depending on what is available at home.
   c. Pot C will receive no liquids of any kind.
   d. Note – if you’re planting seeds, provide all seeds water daily until plants begin to sprout (5-10 days depending on the plant). Once you have a plant sprouting you can begin the experiment.
3. Put the pots in a spot where they will receive some sunlight. Make sure you pot all the pots in the same spot. The only thing different about the three plants should be the type of hydration they get (water, sugar beverage, or no hydration).
4. Take notes about each plant on the plant observation sheet. What color are the leaves of each plant? How do the leaves feel? What does the soil look like? How does the soil feel? What else do you notice?
5. Each day after you “water” your plants jot down some notes about what you notice about your plants.
6. See what happens after a few days, a week, or even a couple weeks of this experiment.