

Watch ME Grow

By: _____

From This...



To This...



Pick Your Topic

I considered making a volcano, but I noticed that lots of kids seem to do that every year. My Mom suggested that I think about what I'm interested in and like to play with in my free time. I got regular and giant Orbeez for Christmas, so I thought there must be something I could do with those.

My first idea was to freeze the Orbeez in slime, my second idea was to see if different types of water can speed up or slow down the process of their growth, and my Mom said the second idea sounded like something I could actually test.

Purpose

I have always been interested in watching Orbeez grow. Through my project, I want to see what makes Orbeez grow faster and larger.

Problem/Question

My problem/question is "What makes my giant Orbeez grow faster and larger?"

Hypothesis

My hypothesis is that my giant Orbeez will grow fastest and largest in sparkling water because sugar will accelerate its growth.

Variable/Control

The controls will be the giant Orbeez, the color of the giant Orbeez, the amount of water I'll put the giant Orbeez in, the containers the giant Orbeez will grow in, and when and where the giant Orbeez will be put in their containers.

The variable is the type of liquid the giant Orbeez will grow in: plain tap water, plain tap water with a heaping tablespoon of salt, and sparkling water.

Materials

I will need three containers, six cups of water for three tests, three heaping tablespoons of salt, three cups of sparkling water, yarn for measuring around the giant Orbeez, measuring tape, and nine giant Orbeez.

Research

Orbeez have many uses. In the old days, farmers would put Orbeez in the soil to hydrate plants, and they still do it today. In grocery stores, they put Orbeez in the food packages to absorb excess water. Orbeez technology called super absorbent polymers is put into diapers to prevent leaks...BLECK! Orbeez can be used as decorations for any party. And last but not least, it's a fun toy, plus it makes for a great science project!

Procedures

The first thing you do is get your three containers and label them sparkling water, saltwater, and tap water. Then, you put one cup of water in the tap water and saltwater containers. Add one heaping tablespoon of salt to the saltwater container and stir it well. After that, put one cup of sparkling water in the sparkling water container. Next, measure your giant Orbeez before placing them in their water. Then, take your giant Orbeez and add them into the containers. At the end of each hour, take out the giant Orbeez and measure and observe them. Replace them back into their correct containers. Recheck them again at the end of each hour and finally at twenty-four hours.

Observations

The saltwater made the Orbeez smooth, but the Orbeez grew much slower in it than the other two liquids. The Orbeez looked bumpy, like a brain, as it grew in the tap water and sparkling water containers. The Orbeez became smooth after 30 hours. The sparkling water made the Orbeez break apart eventually.

Results/Data

Test	Tap Water #1	Sparkling Water #2	Saltwater #3
#1 @ Start	$\frac{3}{4}$ inch	$\frac{3}{4}$ inch	$\frac{3}{4}$ inch
#1 @ 1 Hour	2 $\frac{1}{4}$ inches	2 inches	1 $\frac{3}{4}$ inches
#1 @ 2 Hours	3 inches	3 inches	2 inches
#1 @ 3 Hours	3 $\frac{1}{2}$ inches	4 inches	2 $\frac{6}{16}$ inches
#1 @ 24 Hours	6 inches	6 inches	2 $\frac{1}{2}$ inches
#2 @ Start	$\frac{3}{4}$ inch	$\frac{3}{4}$ inch	$\frac{3}{4}$ inch
#2 @ 1 Hour	2 $\frac{1}{4}$ inches	2 inches	1 $\frac{3}{4}$ inches
#2 @ 2 Hours	3 inches	3 inches	2 inches
#2 @ 3 Hours	3 $\frac{1}{2}$ inches	4 inches	2 $\frac{6}{16}$ inches
#2 @ 24 Hours	6 inches	6 inches	2 $\frac{1}{2}$ inches
#3 @ Start	$\frac{3}{4}$ inch	$\frac{3}{4}$ inch	$\frac{3}{4}$ inch
#3 @ 1 Hour	2 $\frac{1}{4}$ inches	2 inches	1 $\frac{3}{4}$ inches
#3 @ 2 Hour	3 inches	3 inches	2 inches
#3 @ 3 Hours	3 $\frac{1}{2}$ inches	4 inches	2 $\frac{6}{16}$ inches
#3 @ 24 Hours	6 inches	6 inches	2 $\frac{1}{2}$ inches

Conclusion

My hypothesis was that my giant Orbeez will grow fastest and largest in sparkling water because sugar will accelerate its growth. I was correct. The giant Orbeez in the sparkling water grew faster and larger than they did in the other liquids. The tap water came in second, and the saltwater solution

slowed the growth of the giant Orbeez and didn't allow it to become as large as the other two giant Orbeez.