

Testing//Patience

M3-21 PHYSICS

Testable Question + Purpose

Question: Which is a quicker method of cooking potatoes (baking or boiling)?

Purpose: Ya girl is does not care for waiting when it come to potatoes!!

Abstract

In the beginning of my experiment my mom and I spent a couple hours finding the materials we needed. When we got them the next morning the plants had already started to wilt. While I was doing this experiment I noticed that the Gatorade plants started to die faster than the water ones. After a while all my plants died which led me to inconclusive results.

Hypothesis

If two potatoes are cooked (if one is boiled and one is baked), then the potato that was boiled will cook quicker because the heat from the boiling water will allow the potato to soften up.

Materials

My materials for my project included:

- ▶ Publix Brand Aluminum foil
- ▶ A conventional oven
- ▶ Two Russet potatoes (the same size)
- ▶ A stovetop
- ▶ A medium saucepot
- ▶ An iron pot
- ▶ Oven mitts
- ▶ Publix Brand Paper Plates

Procedures

- ▶ After cleaning both potatoes, stab a fork into the potatoes five times, creating five different groups of holes.
- ▶ Place one potato into your saucepot
- ▶ Take one sheet of aluminum foil (12 inches long by 18 inches wide) and wrap this sheet around the other potato
- ▶ Place the aluminum wrapped potato and place it on the middle rack of your oven, close to the front and center (of the oven)
- ▶ Pour enough cold water into the pot so the potato is completely submerged in water.
- ▶ Place the pot on a large burner.
- ▶ Have your supervisor turn the stovetop on medium heat WHILE you set the oven to 100 degrees Celsius (212 degrees Fahrenheit)
- ▶ Keep an eye on your potatoes.
- ▶ After thirty minutes, flip over each potato.
- ▶ After another thirty minutes, turn off the oven and the stove.
- ▶ Remove both potatoes from heat.
- ▶ WHILE your supervisor drains the water from your pot, wear an oven mitt and unwrap your potato.
- ▶ Place your potatoes on two paper plates.
- ▶ Using two forks, one in each hand, “mash” your potatoes.
- ▶ Record which potato mashes easier. (The easier potato to mash will be the one that cooks faster.)

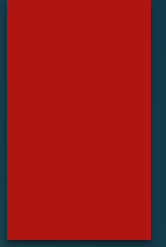
Variables

Control//potato type, potato size, cooking temperatures, cooking times

Independent//cooking method

Dependent//softness, or how fluffy the potato feels/tastes

Pictures



Results (Graph)

* *No Graphs for my experiment.*

Results

My hypothesis was proven true though I was not sure how to construct graphs from this experiment.

Conclusion

My hypothesis was not supported because the Gatorade plants started to die first and all the plants died. I found out that the plants feed with Gatorade died faster than the one that didn't.

Sites Noted

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- 3) Malone, Cory, Sarah Gray, Sean Ross, and Katie Ryan. "The Columbian Exchange." *The Columbian Exchange*. N.p., n.d. Web. 16 Sept. 2016.

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- 5) Spiegel, Alison. "A Guide To Every Type Of Potato You Need To Know." *The Huffington Post*. TheHuffingtonPost.com, 2 Mar. 2014. Web. 16 Sept. 2016.

- 6) By Sealing in Foods inside the Pressure Cooker, Steam Pressure Builds inside the Pot and the Temperature Rises. The High Cooking Level Cooks Foods in a Short Period of Time, Often Cooking Meals in Less than 15 Minutes. "Idaho Potato Commission." *Idaho Potato Commission*. N.p., n.d. Web. 16 Sept. 2016.

- 7) "History of Potatoes, Whats Cooking America." *Whats Cooking America Potatoes History of Potatoes Comments*. N.p., 11 Aug. 2016. Web. 16 Sept. 2016.

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- 10) <https://www.facebook.com/PlanetNatural>. "How to Control Flea Beetles in the Organic Garden | Planet Natural." *Planet Natural RSS*. N.p., n.d. Web. 3 Oct. 2016.
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- 15) "The States of Water: Solid, Liquid, Gas." *The States of Water: Solid, Liquid, Gas*. N.p., n.d. Web. 8 Oct. 2016.
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- 17) "How Long Can You Live without Water?" *How Long Can You Live Without Water?* N.p., n.d. Web. 8 Oct. 2016.