

St. Joan of Arc Science Fair Logbook
Fola Kalejaiye

Key:

Important Information

[Links](#)

Normal Information

<p>Jan 22</p>	<ul style="list-style-type: none"> ● I have decided on my questions, which are: <ul style="list-style-type: none"> ○ “How do types of fruits and vegetables affect your mood, skin, growth, knowledge, immune system, senses and more?” ○ “Does the size and/or amount of the fruit or vegetable vary its effect on you?” ○ “Does the age of the fruit or vegetable matter towards the effect?” ○ “What types of fruits and vegetables are the best for you?” ○ “What foods should you stay away from?” ○ “What types of fruits and vegetables increase your lifespan?” I have also decided it will be a non-experimental project. ● My hypothesis is: <ul style="list-style-type: none"> ○ “Since citrus improves your immune system, I believe that citrus fruits can produce the best effects in your body.” 															
<p>Jan 23</p>	<ul style="list-style-type: none"> ● I researched using: <ul style="list-style-type: none"> ○ 22 Fruits High in Potassium - A Ranking from Highest to Lowest (myfooddata.com) ○ Daily value definition of daily value by Medical dictionary (thefreedictionary.com) ● I made a graph of common fruits with the most potassium. <table border="1" data-bbox="462 1255 1239 1472"> <thead> <tr> <th>Fruit</th> <th>Amount of potassium (per 100 grams)</th> <th>Amount of potassium (per 200 grams)</th> </tr> </thead> <tbody> <tr> <td>Avocadoes</td> <td>485mg (10% daily value)</td> <td>606mg (13% daily value)</td> </tr> <tr> <td>Kiwifruit</td> <td>312mg (7% daily value)</td> <td>1023mg (22% daily value)</td> </tr> <tr> <td>Bananas</td> <td>358mg (8% daily value)</td> <td>804mg (17% daily value)</td> </tr> <tr> <td>Cantaloupe</td> <td>267mg (6% daily value)</td> <td>1571mg (33% daily value)</td> </tr> </tbody> </table> <ul style="list-style-type: none"> ● 	Fruit	Amount of potassium (per 100 grams)	Amount of potassium (per 200 grams)	Avocadoes	485mg (10% daily value)	606mg (13% daily value)	Kiwifruit	312mg (7% daily value)	1023mg (22% daily value)	Bananas	358mg (8% daily value)	804mg (17% daily value)	Cantaloupe	267mg (6% daily value)	1571mg (33% daily value)
Fruit	Amount of potassium (per 100 grams)	Amount of potassium (per 200 grams)														
Avocadoes	485mg (10% daily value)	606mg (13% daily value)														
Kiwifruit	312mg (7% daily value)	1023mg (22% daily value)														
Bananas	358mg (8% daily value)	804mg (17% daily value)														
Cantaloupe	267mg (6% daily value)	1571mg (33% daily value)														
<p>Jan 24</p>	<ul style="list-style-type: none"> ● I started putting my research on the google document. I started writing a few paragraphs about potassium and daily value. ● I researched using: <ul style="list-style-type: none"> ○ Potassium: Sources, Deficiencies, Overdose, Treatment & More (healthline.com) ○ Potash - Wikipedia (wikipedia.com) <ul style="list-style-type: none"> ■ Helps blood pressure, muscle contractions, pH level work. ■ Potassium itself looks like a metal, is soft. ■ Name origin: Potash. ■ Need 4700 milligrams of potassium 															

	<ul style="list-style-type: none"> ● I started making a list of the fruits/vegetables I am researching in my project. ● I modified my questions. My new questions are: <ul style="list-style-type: none"> ○ “How do different types of common fruits and vegetables affect your body and brain, and which is the most beneficial?” ○ “Does the age of a fruit or vegetable vary it’s effect on you?” ○ “What are the risks and benefits of certain fruits and vegetables?”
Jan 26	<ul style="list-style-type: none"> ● I added some new fruits/vegetables to the list. ● I researched using: <ul style="list-style-type: none"> ○ 20 Vegetables High in Potassium - A Ranking from Highest to Lowest (myfooddata.com) ● I started making a graph of common vegetables with the most potassium. <ul style="list-style-type: none"> ○ Lima beans - 570 milligrams of potassium, 12% of DV. ○ Potatoes - 535 milligrams of potassium, 11% of DV. ○ Spinach - 466 milligrams of potassium, 10% of DV.
Jan 27	<ul style="list-style-type: none"> ● I emailed Mrs. Hobart for help. ● I added some information to the google document.
Jan 28	<ul style="list-style-type: none"> ● Mrs. Hobart replied to my email and left me some advice. ● I modified my questions and hypotheses.
Feb 2	<ul style="list-style-type: none"> ● I emailed an expert, asking them a few questions. Hello, Daisy. I would be glad to ask you if you are interested in answer a few questions for my school science fair project. My science fair topic is: "How do different types of common fruits and vegetables affect your body?" If you can, please answer the following: <ul style="list-style-type: none"> ● How big of an impact do you think choosing carefully your fruits/vegetables has on your lifestyle and body? ● Do you believe there is one specific type of fruit/vegetable that is better than all others? Why or why not? These are all my questions. I would prefer to receive an answer on February 15th. Any time before that is perfect. (a few days before my project is due). Thank you for reading this. Sincerely, Fola K ● I emailed Mrs. Hobart for help. ● I did some research using: <ul style="list-style-type: none"> ○ Hyperkalemia: Causes, Symptoms, Diagnosis, Treatment (webmd.com) ● I added some information to the google document about hyperkalemia in school. <ul style="list-style-type: none"> ○ Disease caused by potassium buildup. ○ Potassium buildup - mostly caused by kidney malfunction. Can also be cause by certain meds. ○ Can cause dangerous--even deadly--changes in heart rhythm,

	<p>hemolysis (breakdown of red blood cells), rhabdomyolysis (breakdown of muscle tissue).</p>
Feb 3	<ul style="list-style-type: none"> ● I got a reply from the expert. <ul style="list-style-type: none"> ○ Important to eat a rainbow (abundance) of produce. ○ Important to keep a healthy balanced diet with produce.
Feb 10	<ul style="list-style-type: none"> ● I started adding info about citrus. ● I researched using <ul style="list-style-type: none"> ○ What Are the Health Benefits of Citrus Fruits? (sfgate.com) <ul style="list-style-type: none"> ■ Have flavonoids - get rid of cancer cells, reduce inflammation ■ Vitamin C - antioxidant (heals radical cells before they damage others-prevents inflammation), produces collagen (provides structure/elasticity for skin and tendons), keeps skin smooth. ■ Lots of fiber - 60-70% of fiber in oranges/grapefruits is soluble, prevents spikes in blood sugar and lowers cholesterol. Insoluble prevents constipation.
Feb 11	<ul style="list-style-type: none"> ● I researched using: <ul style="list-style-type: none"> ○ What Eating Too Much Citrus Does To Your Body (thelist.com) <ul style="list-style-type: none"> ■ Grapefruits and other fruits can be harmful to some people (although most can eat citrus fruits without worry) ■ Can interfere with some medications. ■ Lots of fiber can be harmful. ■ High in acidity - can lead to heartburn.
Feb 12	<ul style="list-style-type: none"> ● I sent an email to Kristyn Hall, owner of Energize Nutrition. <ul style="list-style-type: none"> ○ Dear Miss Hall, My school science fair coordinator referred to you when I requested experts in nutrition and diets. She mentioned you are a parent at our school. My question to you is: <ul style="list-style-type: none"> ● Do you think fruitarian diets are as healthy as vegetarian diets, and why? ● Is living off fruits and vegetables (carnivore diet) healthy? I would like to have a reply before February 16th. Thank you, Fola K
Feb 14	<ul style="list-style-type: none"> ● I researched using: <ul style="list-style-type: none"> ○ https://www.healthline.com/nutrition/citrus-fruit-benefits ○ https://www.hsph.harvard.edu/nutritionsource/vitamins/vitamin-b6/ ○ https://medlineplus.gov/ency/article/002424.htm ○ https://www.webmd.com/diet/supplement-guide-magnesium#1\ ○ https://ods.od.nih.gov/factsheets/Copper-HealthProfessional/ ○ https://www.mayoclinic.org/healthy-lifestyle/nutrition-and-healthy-eating/expert-answers/vitamin-c/faq-20058030 <ul style="list-style-type: none"> ■ Some have B6 (pyridoxine) - disease prevention.

	<p>Acceptable amount of B6 can mean lower risk of cancer.</p> <ul style="list-style-type: none"> ■ Have nice amount of potassium. ■ Have phosphorus - makes up 1% of total body weight. 2nd most plentiful mineral in human body. Main function is formation of bones and teeth. Makes protein for growth. Important part of how body uses carbohydrates/fats. ■ Have magnesium - keep blood pressure neutralized, heart rhythm steady. Low amounts have higher chance of inflammation ■ Have copper - help energy producing enzymes work. Copper is in bile and (small amount in) urine. Small amount of copper in body. ■ Reduce risk of kidney stones - painful mineral crystals. Common type of kidney stone: low amounts of citric acid in urine. Citrus fruits have citric acid. ■ Reduce risk of certain cancers - study shows one glass of grapefruit juice reduced risk of lung cancer. Citrus fruits also reduce risk of esophagus cancers, breast cancers, stomach cancers, pancreatic cancers. Flavonoids also prevent cancer (see Feb 10). ■ Too much vitamin C: Diarrhea, nausea, vomiting, heartburn, abdominal cramps, headache, insomnia (not being able to sleep). Healthy diet provides adequate amount of vitamin C. ■ Boost heart health - several components can boost heart health.
<p>Feb 15</p>	<ul style="list-style-type: none"> ● I had an interview with Kristyn Hall, the founder of energize nutrition. ● I did some research using: <ul style="list-style-type: none"> ○ Fruitarian Diet Benefits vs. Dangers - Dr. Axe ○ Fruitarian Diet: Is It Safe — or Really Healthy for You? – Health Essentials from Cleveland Clinic <ul style="list-style-type: none"> ■ Fruitarian diet - No animal or dairy products. Typically eats raw fruits and vegetables (might have nuts and seeds as well). ■ Malnourishment is a concern. Lose some proteins, fats, calcium, b12, omega 3 fatty acids. Too little nutrients can cause tiredness and immune system problems. ■ Important to take supplements, nutrient pills, vitamin pills and try to increase nutrients in body. ■ Body goes into starvation mode - Metabolism slows down, in order to conserve energy for important bodily functions. ■ Can be dangerous to people with pancreatic and kidney disorders. ■ The natural sugar in fruits has a limit just like normal sugar, and too much of it can affect blood levels in diabetic or pre-diabetic people. ■ Too much natural sugar can also cause tooth decay, just like normal sugar can.

Feb 21

- I added finishing touches and wrote my conclusion. I finished my slideshow and recorded my video.