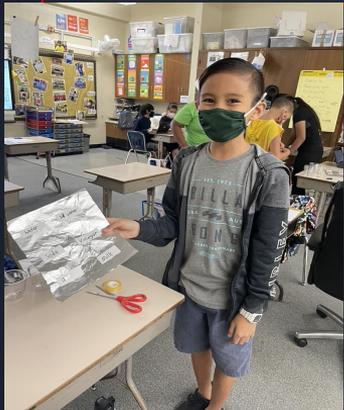




Apple Oxidation Experiment

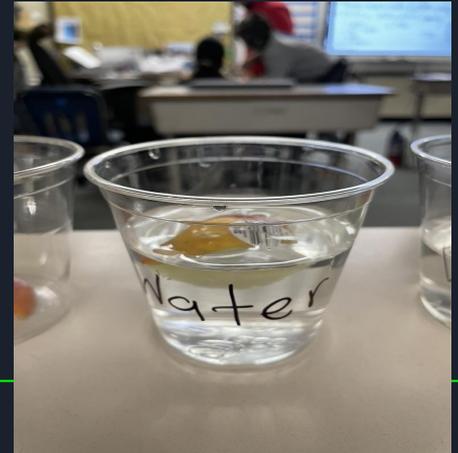
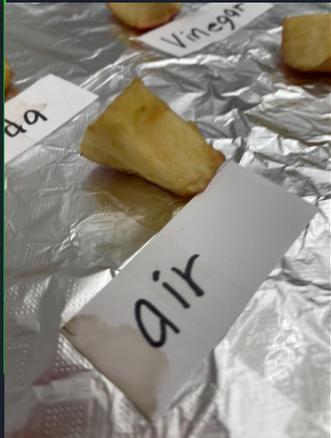
Grade 5 - Group 1



1. Purpose and Hypothesis

How do we stop apples from turning brown?

We think the water apple is not going to rot because the water does nothing to the apple and the water will keep it from rotting by giving it . The air apple would lose because when you leave an apple out it would rot and the air would do nothing but cause it to rot. For the vinegar we think that it would rot because we think the chemicals in the vinegar will rot it. We think the salt water apple would rot from the salt. We stop it from turning brown by keeping it cool or moisturizing the apple to keep it wet instead of dry.



2. Materials

1. Apple
2. Cups
3. Water
4. Salt water
5. Soda
6. Vinegar
7. Milk
8. Butter knife
9. Sharpie
10. Foil
11. Tape
12. Phone
13. Computer
14. Scissors



3.Data/ Observations

Liquid name	1 Hour	2 Hours	5 Hours
Water	Turning a little bit brown	Similar to hour 1 having little brown	Water apple got more brown and rot
Milk	Really soggy and a little brown	Same as hour 1 with a little bit brown and soggy	Milk apple got more brown and soft
Vinegar	It is getting smelly and rotten	The apple got more brown	The apple got more rotten
Soda	Collected the soda so it turned brown from it	Similar to hour 1 with brown color from soda and we can't tell if it is rotting	Similar to hour 2 and is probably rotting already
Salt water	Soft and looks like a normal apple slice	Same as hour 1 still like a normal apple	Salt water looks the same and still looks like a normal apple
Air	It rots from being out so long with no liquid	Turning more brown getting dry and rotting more	Air apple got more brown and rotten

4.Data/Observations 24 hours

Liquid Name	24 Hours
Milk	The milk apple got more brown over time and it stinks and the edge of the apples skin is turning brown but not to much brown
Vinegar	The vinegar has changed a lot because at hour 1 it was normal and on hour 24 it is so brown that it would be the most rotten, and most brown out of all of apples with a lot of ants of it and the skin turned brown.
soda	Changed and turned brown over time but not as much as the vinegar. The apple is light brown on most of it and the skin changed not much
Salt Water	The salt water apple never changed color in any way from hour 1 to hour 24 but it got soft.
Water	If I were to rank the water apple it would be 2 place because it only has a little bit brown and the skin barely changed
Air	Air got really brown from being dry and ants are on it and the skin got dry and is changing the color to brown.

5.Data/Observations 48 Hours

Liquid	48 Hours
Milk	The milk apple got more brown and shranked. There are a few ants on it and the skin turned a bit brown
Vinegar	The vinegar apple turned more brown and it's skin turned really brown it is soft and dry with many ants on it. It also stinks. The apple is really different from the apple at our 24.
Soda	The soda apple turned brown from the soda and it is rotting now and the skin is soft and dry.
Salt Water	The salt water apple did not change color but it got soft.
Water	The water apple is not to brown, there is only little spots and it got drier and smaller.
Air	The air apple was not in any liquid so it got dry, it got smaller and is getting more brown. The skin edges got dark brown and there was ants on it.

6. Conclusion

Our hypothesis was wrong because we said the water apple would not rot but it did. This happened because the water apple was exposed to the air so the air and moisture went together causing the oxidation process. We were right about the air apple because it rots from being out and we were also right about the vinegar apple that it would rot. It rot because we put a lot of vinegar on it. We were wrong about the salt water apple because we said it would rot but it did not it just got soft. This happens because salt can stop the oxidation process.

