



Apple Oxidation Experiment



#Grade 5th - Group 2

Purpose and hypothesis

How do we stop apples from turning brown?

I think we should use vinegar to stop it to turning brown because its sour and it could not make the apple not brown but fresh . It also makes the skin to not be brown too. Even though vinegar is sour We think it could not make the apple brown.



Materials

- 1.apple
- 2.foil
- 3.computer
- 4.cups
- 5.tape
- 6.water
- 7.vinegar
- 8.milk
- 9.saltwater
- 10.soda
- 11.paper
- 12.scissors
- 13.sharpie



Data/observations



Liquids Name	1 hour	2 hour	5 hours
milk	Half of the apple is brown (4th cleanest)	Turned more browner then hour 1	Most browniest of them all
soda	It is the most brownest(Least cleanest)	Its mildly browner then 1 hour ago	Same color of brown but all over the place
saltwater	The most clean	Stayed the same from 1 hour ago	Same then hour 1 and 2
vinegar	Second cleanest (sour)	It also stayed the same from 1 hour ago	Slightly more brown then water
water	Its kinda brown(3rd cleanest)	It is more browner than hour 1	Second cleanest but still brown
none	More brownier than milk(5th cleanest)	It is a little browner	The brown is more darker

Data/observation 24 hours



24 hours	difference
milk	I think it got a little bit cleaner to so I think it's because of the ants that ate the brown parts.
saltwater	It is the most cleanest of them all of the apples.
water	It got more cleaner than yesterday.
vinegar	It got more browner than all of the apples because the ants don't like sour stuff so it got browner. (most browniest apple)
none	It got a little bit whiter then the last time I seen it. The ants probably ate the brown parts to.
soda	It gotten more cleaner because I think the ants ate the brown parts of it and they like sugar.

Data/observation 48 hours



48 hours	difference
soda	It has brown stuff on some of the parts on it but I think the ants ate the brown stuff.
Salt water	It shrunk but its still so much whiter and some of the skin is clear plus the salt took away the moisture.
water	It looks like it gotten wider and its white also the sticker didnt get out which is impressive. It got mildly brown but its like scars.
vinegar	It has mold on the skin and the skin looks clear also it looks like it has salt.
milk	It gotten more brown than before and it has like salt on it. The top looks more rotten.
none	The inside is horrible but the skin looks good and alright. It lacked moisture on the apple

Conclusion

Our hypothesis is wrong since we chose vinegar. It is because it is caused by the air and moisture so it caused it to mold and turn brown. The apple gotten a lot of the vinegar when we putted in the cup and the hours past by the it molded and gotten very brown. It also got skinnier after 48 hours past by then it shriveled up a little bit to. If we chose salt water then placed it upstairs for 48 hours the oxidation will prevent the apple getting brown stop. Although the skin is clear and is getting smaller its still the same. The Reason why we chose vinegar is that we thought that the vinegar would keep the apples fresh because it had the right incredeces to keep it fresh.



Salt does prevent the oxidation of apples because salting places the cells for an apple in a hypertonic Environment (the environment is saltier than the inside of the cells). For short it stops the apple from turning brown.

Oxidation
meaning

Photo's/examples

1st hour

24th hour

Before laying the apples.



