

THE RUSTY APPLE

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Question: What wrapping keeps an apple from going brown?

Introduction

I like eating apples for munch and sip. My mum will cut up my apple into wedges and it goes brown. My research is to find which wrapping is the best to stop an apple going brown.

Hypothesis

The wrapping that keeps the most air out will stop the apple going brown.

Methodology

- Four royal gala apples will be cut into four quarters.
- We will wrap three of the quarters in cling wrap, three in greaseproof paper, three in aluminium foil and three in separate sandwich bags.
- Three of the apple quarters will have no wrapping.
- The remaining apple quarter I ate for quality control!



RESULTS

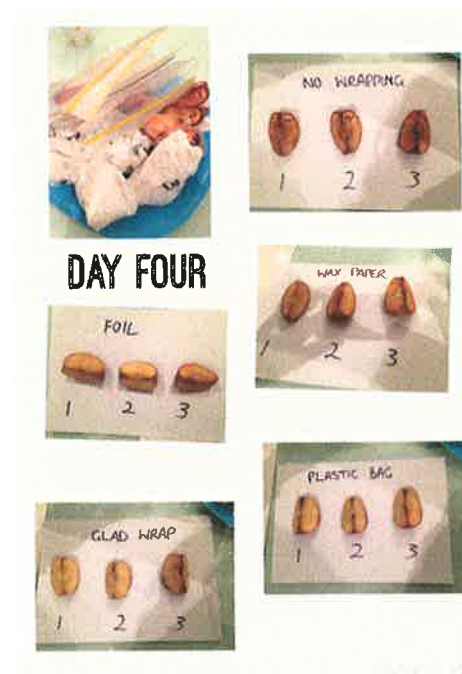
DAY TWO (1 not brown or dry and 5 very brown or dry)

Wrapping	Apple Slice	How brown is it	How dried out	Did it stick to the wrapping	Did it smell strongly	How did it feel
Aluminium foil	1	3	2	no	smells like icy juice	hard
	2	3	2	no		
	3	3	2	no		
Wax paper	1	2	2	no	little bit	hard
	2	2	2	no		
	3	2	2	no		
Glad wrap	1	2	2	yes	tiny bit	hard
	2	2	2	yes		
	3	2	2	yes		
Plastic bag	1	2	2	no	stinky	hard
	2	2	2	no		
	3	2	2	no		
No wrapping	1	3	3	-	little bit	hard but soft on edges
	2	3	3	-		
	3	3	3	-		

- The apples are a little bit brown but you could probably still eat them

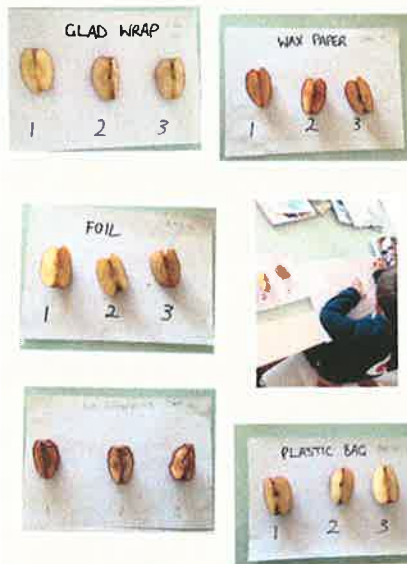
DAY FOUR

Wrapping	Apple Slice	How brown is it	How dried out	Did it stick to the wrapping	Did it smell strongly	How did it feel
Aluminium foil	1	3	4	no	no	firm
	2	4	4	no	no	firm
	3	3	4	no	no	firm
Wax paper	1	4	4	no	no	soft
	2	4	4	no	no	soft
	3	4	4	no	no	soft
Glad wrap	1	2	3	no	no	hard
	2	2	3	no	no	hard
	3	2	3	no	no	hard
Plastic bag	1	3	3	no	kind of	hard
	2	3	3	no	kind of	
	3	3	3	no	kind of	
No wrapping	1	5	4	-	medium	sponge soft
	2	5	4	-	no	
	3	5	4	-	no	



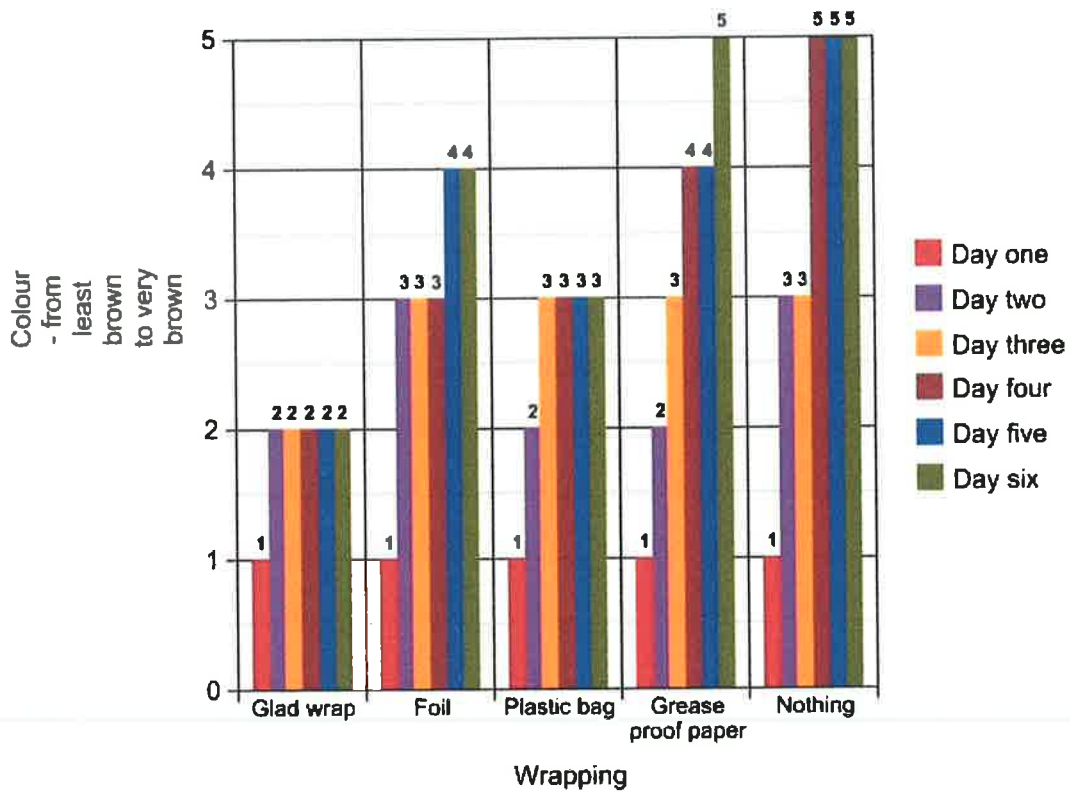
DAY SIX

Wrapping	Apple slice	How brown is it	How dried out is it	Did it stick to the wrapping	Did it smell strongly	How did it feel
Aluminium foil	1 2 3	3 4 4	4 4 4	no no no	yes yes yes	soft edges soft edges soft edges
Wax paper	1 2 3	5 5 5	5 5 5	no no no	medium medium medium	soft soft soft
Glad wrap	1 2 3	2 2 2	3 3 3	no no no	a little a little a little	firm firm firm
Plastic bag	1 2 3	3 3 3	3 3 3	no no no	a little a little a little	soft edges soft edges soft edges
No wrapping	1 2 3	5 5 5	5 5 5	- - -	a little a little a little	soft and spongy



DAY SIX

How Brown is the apple?



DISCUSSION

By the end of the six days all the apples were brown. However some of the apples were still firm and could possibly still be eaten. The group of apples with no wrapping were very brown, soft and had shrunk. You couldn't eat these apples as they were very yucky. The reason why they were so brown is because they were open to the air the whole six days.

The apples that were in the wax paper were also very brown as the wrapping was not sealed. However they were not as soft or shrunken as the apples with no wrapping.

The apples in the plastic bag, and the foil were still exposed to the air more than the gladwrap. They were not as bad as the wax paper or no wrapping as they were fully covered. I think the apples in the plastic bag may have been better if we had squeezed out most of the air before sealing. The foil although tightly wrapped it doesn't stick to itself.

The glad wrap apples were best as the wrap stuck tightly to the apple not letting very much air in.

CONCLUSION

The hypothesis is therefore correct. It is the wrapping that keeps the most amount of air out, that prevents the apples from going brown. In future I am going to get my mum to wrap my munch and sip apple slices in gladwrap.

ACKNOWLEDGEMENTS

I would like to thank my Mum for helping me cut the apples and also assisting with the graphs and setting out the tables and photos in this report.



I love my apples!