

# Chapter 4: Fruits



**FoodMASTER**

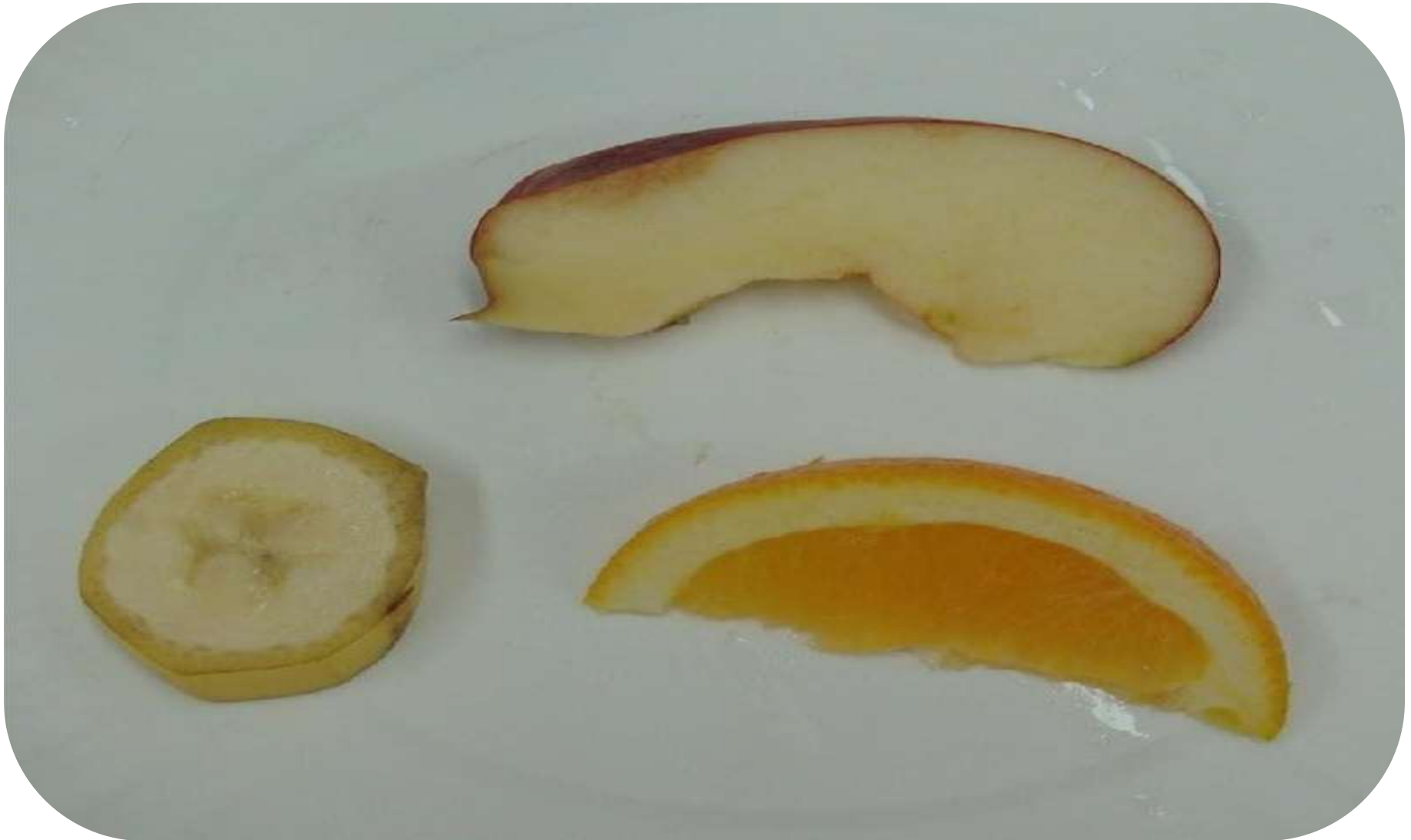
Food, Math, and Science Teaching Enhancement Resource  
Supported by NIH Science Education Partnership Award (SEPA)





# **Food Explorations Lab I: Enzymatic Reactions**

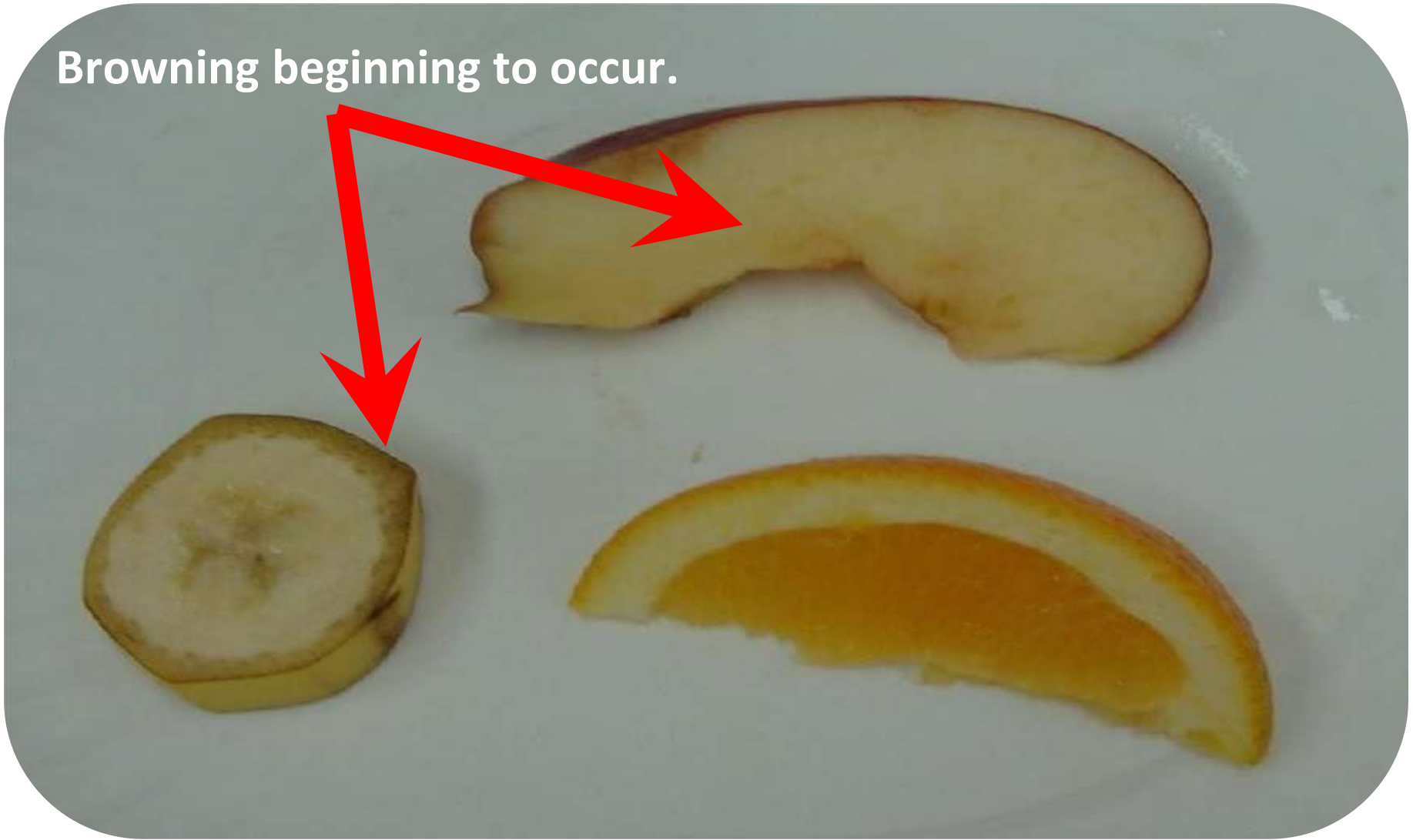
## Student Lab Investigations: Part A



**Apple, orange, and banana at 0 minutes.**

# Student Lab Investigations: Part A

Browning beginning to occur.



**Apple, orange, and banana after 10 minutes.**

# Student Lab Investigations: Part B (NOTE: Students will only test apples)

Acids should prevent browning.



**Vitamin C Tablet: 10 Minutes**



**Vitamin C Tablet: 20 Minutes**

## Student Lab Investigations: Part B

Acids should prevent browning.



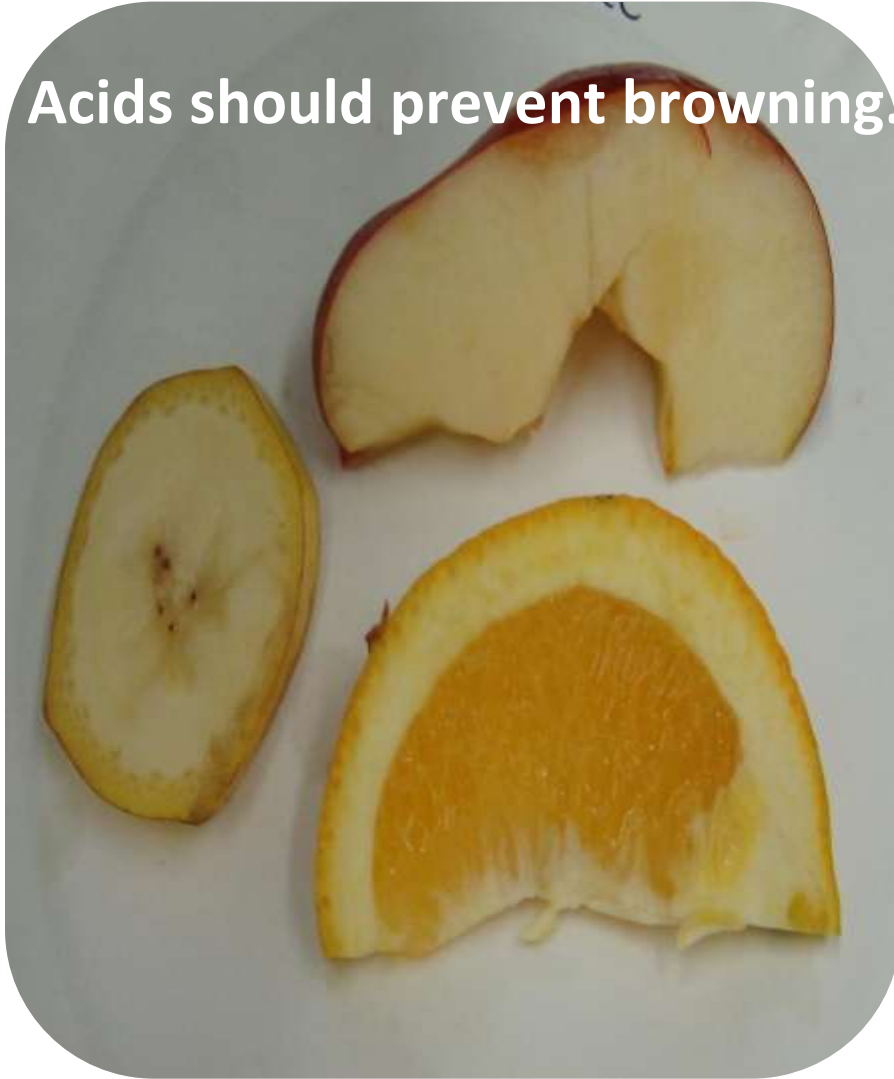
**Cream of Tartar: 10 Minutes**



**Cream of Tartar: 20 Minutes**

## Student Lab Investigations: Part B

Acids should prevent browning.



**Lemon Juice: 10 Minutes**



**Lemon Juice: 20 Minutes**

## Student Lab Investigations: Part B

Sugar will coat each food and should prevent browning.



**Sugar-Water Solution: 10 minutes**

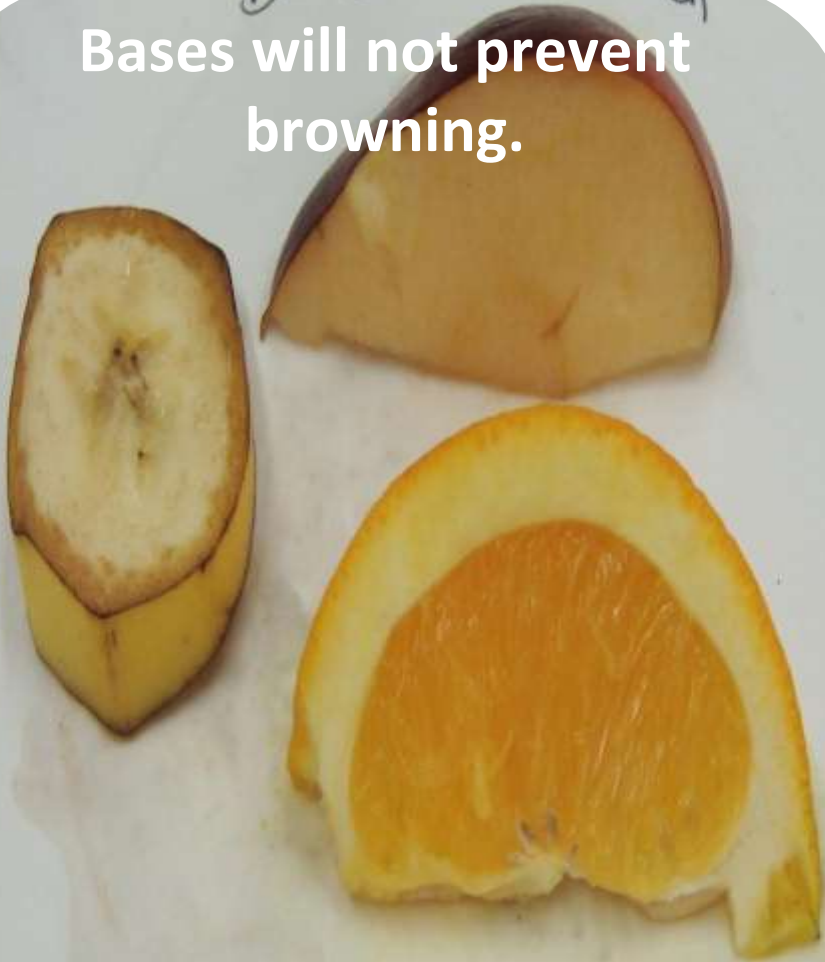


**Sugar-Water Solution: 20 minutes**



## Student Lab Investigations: Part B

Bases will not prevent browning.



**Baking Soda: 10 minutes**



**Baking Soda: 20 minutes**

## Student Lab Investigations: Part B

Acids should prevent browning.



**Vinegar: 10 minutes**



**Vinegar: 20 minutes**

## Student Lab Investigations: Part B

Salt should not prevent browning.



**Salt Solution: 10 minutes**



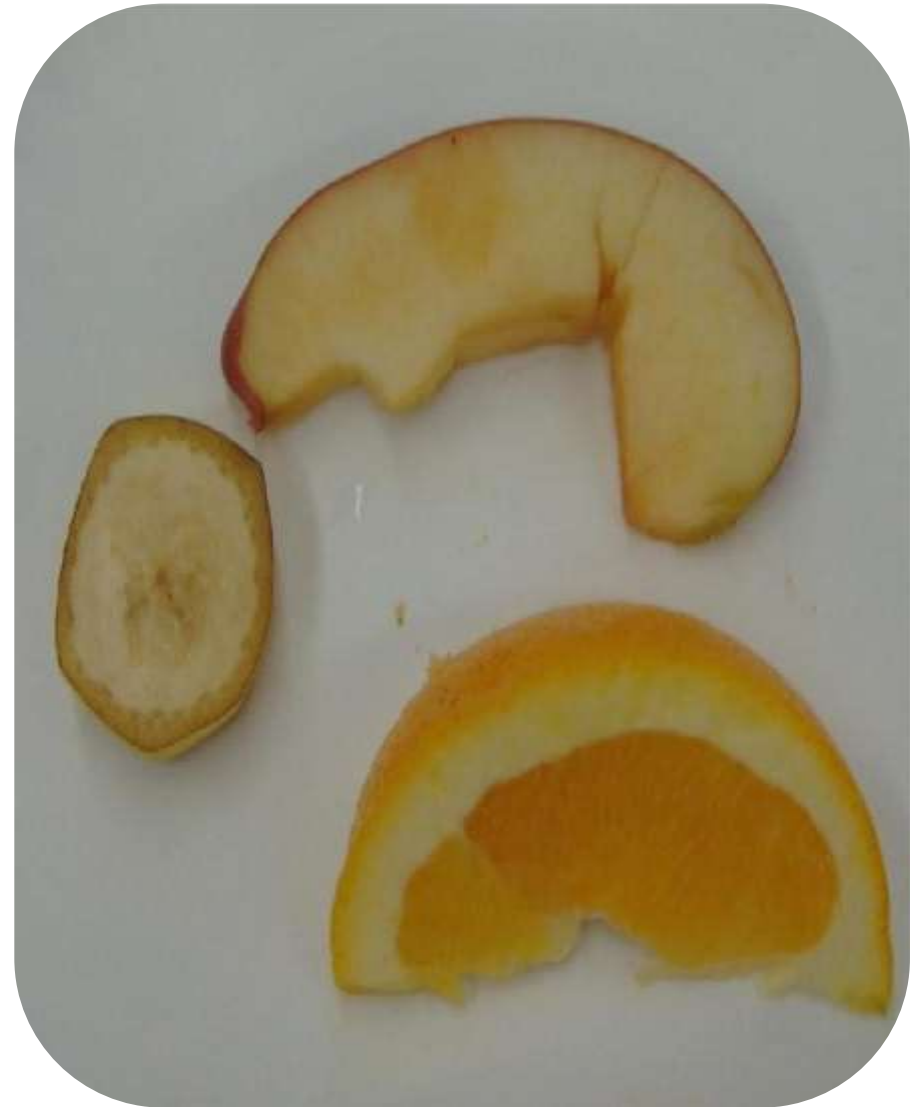
**Salt Solution: 20 minutes**

## Student Lab Investigations: Part B

Water should not prevent browning.



**Water: 10 minutes**



**Water: 20 minutes**

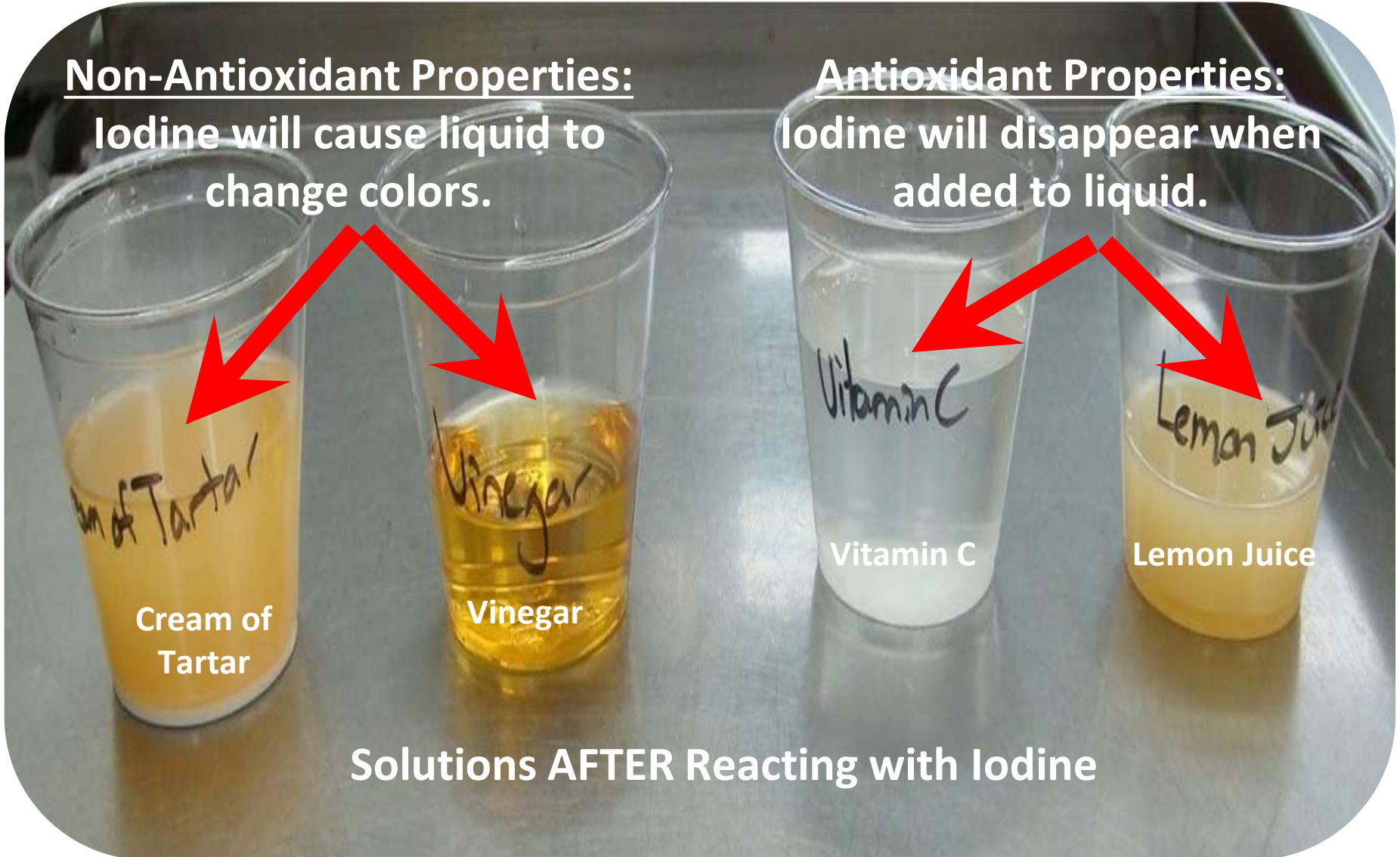


# **Food Explorations Lab II: Hidden Antioxidants**

# Student Lab Investigations

Non-Antioxidant Properties:  
Iodine will cause liquid to change colors.

Antioxidant Properties:  
Iodine will disappear when added to liquid.



Solutions AFTER Reacting with Iodine