

# Brown Banana

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# Guiding question and Hypothesis

## **Guiding Question**

Which banana will rot first the banana with vitamin C or without vitamin C.

## **Hypothesis**

My hypothesis is the banana with the vitamin C will rot faster than the banana without the vitamin C.

# Materials list and Variables

## **Materials list**

Banana, dinner knife, 2 saucers, 2 sheets of white paper, pen, 3 vitamin C tablets, cutting board, rolling board, timer.

## **Variables**

Controlled Variable: The bananas will stay in shape.

Manipulated Variable: The color of each banana surface.

Measured Variable: How long can each banana last until they rot.

# Procedure

1. Peel the banana, and slice it into eight pieces
2. Place four slices of banana in each sauser
3. Set each sauser on a sheet of paper. Label one of the papers” Without Vitamin C”. Label the other paper “ With Vitamin C”
4. Place the Vitamin C tablets on the cutting board and crush then with a rolling pin.
5. Use the dinner knife to scoop up the vitamin C powder and sprinkle the powder over the surface of the banana slices in the With Vitamin C sauser.
6. Every 15 minutes for 2 hours or more, observe the color of each sample’s surface. Record your observation in an Oxidation Data table.

# Data

Minutes,time	Banana with vitamin C	Banana without vitamin C	
15	Looks the same as it started	It is starting to get smaller and brown	
30	It is getting a little darker on the side	It is getting more brown and has dark lines	
45	Getting darker on the edges	Getting small and really dark and getting dark lines	
60	Smaller but still in good shape	Brown with lines of black	

# Conclusion

In Conclusion, my hypothesis was incorrect my hypothesis was that the banana with the vitamin C would rot faster but based on the evidence on the chart the banana without the vitamin C started to rot first. On the data chart when I times it for 15 min. They looked the same with no effect. But over time both bananas were getting dark but the banana without the vitamin C was getting smaller and darker faster than the banana with the vitamin C. While I was doing this experiment I discovered why the the banana without the vitamin C rote first. This is why. The bananas discolor when bruised or peeled and exposed to air. This discoloration is caused by changes that occur when the cells are broken. The chemicals released by the damaged cells are oxidized, resulting in changes in the fruit. The process of change due to combination with oxygen is called oxidation. Vitamin C is an antioxidant, a substance that inhibits oxidation. Covering the surface of the banana with Vitamin C inhabits the discoloration caused by oxidation.