

Goldie at Home: Innovative Iowans

Activity Overview: Iowa may be best known for growing corn now-a-days, but apple growing was extremely popular in the Hawkeye state at the turn of the 20th century. Even the Red Delicious apple, which can still be purchased in grocery stores today, was first grown and made popular in Iowa. This activity has young historians making predictions, experimenting with apple slices and figuring out the best material to keep apples crisp and fresh.

Connection to Iowa History

The popular Red Delicious variety of apple was first discovered on an Iowa farm located in Madison County. The infamous story states apple grower Jesse Hiatt discovered the new variety of apple growing in between the rows of his already established orchard. After a few tries to remove the tree, he let it grow. It eventually produced a new variety of apple that would win the national apple contest in 1893. Iowa produced 9.5 million apples in 1911, which is 40 times greater than the number of apples grown in Iowa today.



Instructions

- 1 **Preparation.** On a baking sheet, place four containers. The bowls need to be large enough to hold an apple slice and the slice must be covered with liquid.
- 2 **Cut.** With parental assistance, slice and core an apple into four equal pieces. Place one slice into each of the four containers.
- 3 **Initial observation.** Using the [worksheet](#), write your observations and predictions.
- 4 **Fill.** One container will not hold any liquid to allow the one apple slice to be changed by the air. Fill the other three containers with equal amounts of the chosen liquids, which should cover the apple slice. Make sure to label each container with the liquid inside.
- 5 **Wait.** Put the baking sheet with the containers in a safe place that will be out of the way. Do not cover the containers. Wait three days before checking on the apple slices.
- 6 **Final observation.** Using the worksheet, write your observations about each apple slice at the end of the experiment.

Instructions continued on next page

Materials

- One apple (preferably Red Delicious)
- Knife or apple slicer
- Baking sheet
- Four small bowls or glasses
- 3 liquids (examples include: water, salt water, oil, vinegar, pop/ soda or fruit juice)
- Pen or pencil
- [Worksheet](#)

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Instructions continued

7 Questions to Spark Learning

- Jesse Hiatt's original name for his new variety of apple was changed from Hawkeye to Red Delicious. There is conflicting information about why the apple's name was changed. It might have happened when the variety was sold to a different company or because of a judge who, after tasting it, declared it "delicious." If you discovered a new type of apple, what would you name the new fruit?
- Apple growing used to be a popular crop in Iowa. Why do you think it became less popular over time?
- Why do you think growing apples would be important to early citizens, like Jesse Hiatt, in Iowa?

8 Additional Resources

Explore these resources below to learn more about the history of the Red Delicious apple.

- [**Winterset Madsonian: "The Best Apple in the World"**](#)
- [**Trapple Orchard: "History of the Delicious Apple"**](#)
- [**The Des Moines Register: "Iowa is Famous for Corn, Soybeans... and the Red Delicious Apple"**](#)
- [**The New York Times: "The Long, Monstrous Reign of the Red Delicious Apple Is Ending"**](#)
- [**Stemilt World Famous Fruit: Red Delicious Apples Information**](#)

Apple Slice Experiment Worksheet

Initial Observations

Using the space below, describe the apple slices right after cutting.

What do you see? (Describe colors and shape)

How does it feel? (Describe the texture of the slices)

How does it smell? (Describe the scent using adjectives)

Additional Observations (Use this space for any additional notes)

Predictions

Place the apples in the liquid inside the containers. Use the space below to make your predictions.

Container #	Liquid Type	Predictions - What do you think will happen?
#1	Air	
#2		
#3		
#4		

Which apple slice do you think will stay the freshest after three days? _____

What reasons do you make that prediction?

Which apple slice do you think will stay the rot the most after three days? _____

What reasons do you make that prediction?

Final Observations

Use the space below to write your final observations of the apple slices.

Container #	Liquid Type	How does the apple slice look?	How does the apple slice feel?	How does the apple slice smell?
#1	Air			
#2				
#3				
#4				

How do the apple slices compare to when first sliced? What has changed between the start of the experiment to now?

Container #	How has the apple slice changed over time?
#1	
#2	
#3	
#4	

Which apple slice stayed the freshest after three days? _____

Why do you think this apple slice stayed the freshest?

Which apple slice changed the most after three days? _____

Why do you think this apple slice changed the most?
