Apples!

FOOD SCIENCE WITH APPLES

It's nearly Autumn and that means apples will be available for purchasing at Farmer's Markets and picking at orchards across the state and country

Try this food science experiment with a variety of apples. Enjoy as a tasty treat afterwards!

BAKED APPLES

Supplies:

5 apples - 1 of each variety (Jonathan, McIntosh, Red Delicious, Honey Crisp, etc)
5 Tablespoons brown sugar
1/2 teaspoon lemon juice

Time: 30-45 minutes

What to do:

Conventional oven: Preheat oven to 375°F. Wash each apple and core but not all the way to the bottom. Place apples in baking dish and fill each with 1 T sugar and about 1/8 tsp. lemon juice. Add water to the baking dish to a depth of 1 inch. Bake for 30-40 minutes or until soft. Apples may be baked covered or uncovered. If uncovered, baste with syrup in pan. Compare consistency of apple varieties (see chart).

Reflect:

Describe the consistency of each apple from extremely firm to extremely mushy.

Variety	*Consistency*
A.	
B.	
C.	
D.	

1. Which apple variety provides the best flavor for baked apples?

2. Which apple variety provides the firmest texture?

3. Which apple variety would you use to make baked apples again?

Apply:

Different varieties of apples are used in the food industry for different types of food products. Texture, flavor, acidity, and color all play a part in what the end product is going to look and taste like. Food scientists test different varieties of apples in food products (similar to the baked apple experiment above) to determine which variety will give the final product the best attributes to produce the best possible product.

PURDUE UNIVERSITY | Extension - 4-H Youth Development