

Where is the Starch?

Purpose of Activity:

1. To let youth test different foods for their starch levels.

Materials Needed:

- Iodine (you can usually get this from a First Aid kit or a pharmacy)
- Eyedropper
- Paper plates
- Pieces of foods (starchy and non-starchy samples. See table below for suggestions)

Starchy	Less Starchy
bread crackers cereal macaroni peas dry beans peanuts potatoes apples that are not quite ripe unripe banana white rice	orange cherries grapes strawberries plums ripe banana green pepper broccoli celery tomatoes summer squash green beans brown rice

Instructions:

1. Put samples of the different foods on a paper plate. With an eyedropper, put a few drops of iodine on 3 of the food samples.
2. Have participants watch what happens to the color of the iodine on different foods. Then have a discussion about what those changes mean.

Suggested Discussion:

1. Look at how the iodine has changed colors on some of the foods. On some foods it stayed dark reddish-brown, just like when it came out of the bottle. On other foods it changed to dark blue or purplish black.
2. Can you guess why? Iodine reacts to starch. Food that's full of starch makes the iodine change colors. Foods that are low in starch don't really affect the color of the iodine.

3. Ask kids to guess how much starch is in the remaining foods you haven't tested yet. Do the experiment and see how many of their guesses were right.
4. Remind participants about the differences between starchy and sugary carbohydrates. Be sure they also understand that all carbohydrates turn into sugar after we eat them. So we shouldn't eat too much of them, even the starchy ones. Have them help you make a list on the white board of both starchy and less starchy foods.

Notes:

- If you used bananas in the experiment, be sure to use both a ripened and a non-ripened one (the same applies for apples).
- Explain to kids that as some starchy fruits ripen, the starch is changed into sugar. That explains why the non-ripened banana (or apple) turned purple or black, but the really ripe one didn't. In the ripe one, the starch had already been changed into sugar.
- If you used rice, show kids how white rice has more starch in it than brown rice.

[Note: be sure kids don't eat the iodine; also be careful not to spill it since it stains.]