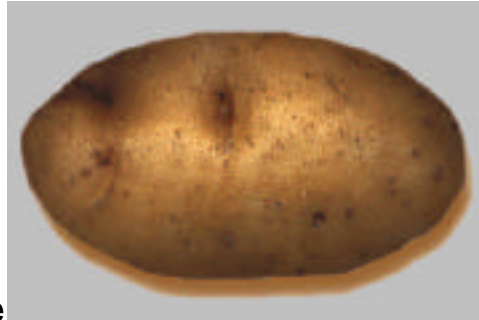


# Taking The Starch Out of A Potato

(This experiment can be substituted for your 4th or 5th Grade Lesson)

## Materials:

- \* a potato (peeled)
- \* a strainer or cheesecloth
- \* aluminum foil
- \* a paper towel
- \* 1/2 tsp flour
- \* a grater
- \* a bowl
- \* a drop or 2 of tincture of iodine
- \* 1/2 tsp salt



## Question:

What is starch?

It's what people sometimes add when they wash shirts and it is an ingredient in many medicines. **It is also an important food.**

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store  
feed  
stored in the  
sorghum (a grain  
roots or tuber  
potatoes.

Plants make starch from sugar molecules in order to store food for the winter. Plants also use starch to feed seedlings or new sprouts. The starch is stored in the seeds of corn and wheat, in the stem in sorghum (a grain similar to Indian corn), and in the roots or tuber (underground stem) of yams and potatoes.

## Question:

How do we know potatoes have starch?

## Procedures:

\*Grate a tablespoon or two of potato into a bowl. Squeeze the potato mush through cheesecloth or a fine strainer onto a piece of aluminum foil. Pat the mush dry with a paper towel. Then apply a drop of iodine to it.

\*Place the salt and the flour on the aluminum foil.

\*Apply a drop of iodine to each.

**Ask:**

What happens?

The salt takes on the light brown tint of the iodine. The potato and the flour turn blue-black.

**Ask:**

Why?

The blue-black color tells us that starch is present. A chemical change takes place as the iodine combines with the starch. Starch is a carbohydrate, made up of carbon, hydrogen and oxygen.

Many packages in the supermarkets are labeled “potato starch”. Inside is a white, powdery substance ground from potatoes by machines. Huge screens filter out the potato fiber, and the potato starch is then left to dry in large vats.

Potato starch is used to thicken sauces and gravy and to replace wheat flour in cakes.

