



Carry Out Science: Crispy Roasted Potatoes

Description: Make a yummy potato dish and learn more about these super tubers!



Fun Fact! The potato nickname *spud* comes from the medieval word "spyde," which referred to simple digging tools.

Grades: 5 and up
Ability Level: Medium
Time: 75 minutes
Yields 4 Servings

Ingredients:

- ¼ cup (¾ ounce) grated parmesan
- ¼ cup all-purpose flour
- ½ to 1 teaspoon salt
- Dash of black pepper
- 2 starchy potatoes (e.g., Russet) or 4 large all-purpose potatoes (e.g., Yukon Gold). About 1 ¾ pound total.
- ½ stick (¼ cup) unsalted butter

Instructions:

1. Preheat the oven to 350°F.
2. Wash, peel, and quarter potatoes lengthwise.
3. In a large sealable bag, add flour, salt, and pepper. Shake to mix.
4. Add potatoes to the flour mixture, tightly sealing the bag, and shake to coat well.
5. Melt butter in the microwave.
6. Pour butter into a large shallow baking pan. Lift potatoes from the bag and arrange in an even layer.
7. Roast in the lower third of the oven, turning twice, until browned and crisp (about an hour).
8. Add parmesan and desired herbs (e.g., rosemary, thyme). Serve warm and enjoy!

Feeling Saucy?

Dip your taters in one of these yummy homemade sauces!

Chimichurri

An herby sauce from Argentina.

- ½ cup (packed) fresh herbs, mostly parsley
- ¼ cup olive oil
- 1-2 tablespoons red wine vinegar
- 1 garlic clove, peeled
- ½ teaspoon dried crushed red pepper
- ¼ teaspoon salt

Puree all ingredients in a food processor or with mortar and pestle. Garnish with pomegranate seeds.

Special Sauce

A tangy sauce made with items from your fridge.

- ½ cup mayonnaise
- ⅓ cup ketchup
- ½ teaspoon Worcestershire sauce
- 2 teaspoons pickle brine
- ½ teaspoon paprika
- A pinch of cayenne

In a small bowl, combine and stir all ingredients together.

Tater Talk!

Potatoes are known as a **starchy tuber**. Starchy tubers are below-ground structures used by plants to store energy, which makes them perfect food staples for humans due primarily to their high starch content.

- Potatoes are often planted after the last frost of the year. They grow best between 45° to 55°F.
- When planting potatoes, choose a location that gets full sun – at least 6 hours of sunlight daily.
- Plant in rows spaced about 3 feet apart.
- With a round-point shovel, dig a trench about 6 inches wide and 8 inches deep, tapering the bottom to about 3 inches wide.
- Potatoes become inedible when exposed to sunlight for long periods. Place soil around the base of the plant to prevent sun exposure.



Cold Potato to Hot Potato

Try this experiment:

- Cold potato: After peeling and cutting your potatoes, place one of them on a plate and place it in the fridge. Let it sit for an hour.
- Warm potato: Place another sliced potato on another plate and leave it on your countertop at room temperature for an hour.
- Bake both potatoes in separate pans, remembering which potato was “cold” and which was “warm.”

Tasty Questions

Scientists ask question to understand the world around them. What questions do you have while conducting this experiment? Here are some to get you started:

- Compare the look, taste, and smell of the two potatoes before, during, and after cooking. What do you notice?
- What would happen if you baked your potatoes in the oven for a longer amount of time?

Fun Fact! There are an estimated 200 varieties of potatoes grown in the United States.

What's going on?

As the water in the potato cools in the fridge, the starch in the potato will break down. This will lead to more browning during baking! Is your “cold” potato crispier than the “warm” potato after baking?



Food for Thought



Share your experience! Scan the code on the left with your smart phone's camera to take a brief survey that will help us improve this recipe for families like yours!

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