

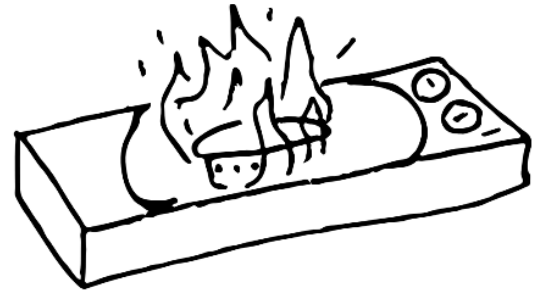
Cooking With Heat + Chili Mac Recipe**What's this lesson all about?**

Applying heat to food doesn't just make it tasty, it's science! In this lesson you'll learn about the chemical reactions that happen when you cook, different techniques to cook safely with heat, and how to make a delicious chili mac dish.

LEARN ABOUT IT

Cooking with heat safety tips

- Ask a grown-up to help you.
- If you can't reach the oven, use a step stool.
- Turn your pot and pan handles away from you, in toward the stove, so you don't hit them by accident.
- Never touch a hot pot handle.
- Always use a timer when you cook to ensure you don't burn anything.

**Cooking terms**

- **Bake:** to cook in oven
- **Boil:** when water breaks into large bubbles over high heat
- **Broil:** to cook in an oven using only heat from above, usually to brown or melt something
- **Roast:** to bake at a high temperature
- **Sauté:** to fry in a small amount of oil
- **Simmer:** a low, slow boil with smaller bubbles over medium to low heat

How to sauté (pronounced: SAW-TAY)

- To sauté means to cook food quickly in a small amount of fat (oil, butter, margarine)
- Put a skillet on a stovetop burner; turn the burner on high; then, place fat (oil, butter, margarine) in the skillet; once the fat is hot, add the food that needs to be sautéed.
- Use a wooden spoon to continually move the food around the skillet so it won't burn.
- Hold the skillet handle in one hand and hold the wooden spoon in the other hand.
- Use an oven mitt if the skillet handle is hot and keep the handle turned to the side to prevent an accident.
- The food is sautéed, when it turns clear and light brown, and the fat is absorbed into the food (often 3 to 5 minutes).
- Types of foods often sautéed: onions, garlic, pepper, meat

FOOD FOUNDATION STANDARDS: Food is fun, Food is from the earth, Food is fuel

This lesson meets the following Indiana State Academic Standards: 4.RV.1, 5.RV.1, 6.RV.1, 4.SL.1, 5.SL.1, 6.SL.1, 4.SL.2.1, 5.SL.2.1, 6.SL.2.1, 4.SL.2.3, 5.SL.2.3, 6.SL.2.3, 4.SL.2.4, 5.SL.2.4, 6.SL.2.4, 4.SL.2.5, 5.SL.2.5, 6.SL.2.1, SEPS.1, SEPS.2, SEPS. 8, 4.PS.3, 5.PS.1, 5.1.1, 5.1.2, 5.3.1, 5.4.2, 5.4.3, 5.4.6, 5.5.1, 5.5.5, 5.6.1, 5.6.2, 5.6.5, 5.7.1, 5.7.2, 8.1.1, 8.3.2, 8.4.1, 8.4.2, 8.4.3, 8.4.4, 8.5.1, 8.5.3, 8.5.4, 8.5.6, 8.6.2, 8.6.5, 8.7.3

FOOD IS FUN! FOOD IS FUEL. FOOD IS FROM THE EARTH. FOOD IS FOR SHARING!

Cooking With Heat + Chili Mac Recipe

BE A FOOD EXPLORER

LISTEN: What crazy chemical reactions does heat trigger in food? Find out the answers in this podcast from brains on! (plus, you'll learn how to make a tasty grilled cheese sandwich).

Click this link: <https://www.brainson.org/shows/2018/06/04/heat-science-of-cooking>

WONDER: How did humans begin using fire to cook with in the first place? What role did fire play in human evolution? The answers may surprise you!

Click this link: <https://wonderopolis.org/wonder/how-was-fire-discovered>

LEARN: Find out the gooey science behind melting cheese.

Click this link: <https://www.americastestkitchen.com/kids/activities/the-gooey-science-of-melting-cheese>

MAKE:**Chili Mac**

This recipe makes 5-6 servings. You can store leftover cooked turkey in the fridge or freezer for later, or cut the recipe to reduce number of servings. (For example, to cut the recipe in half, divide the quantity for each ingredient by 2). Feel free to make substitutions as needed. Use what you have on hand! Make sure you have a grown-up to help you while cutting and cooking with heat.

Ingredients

- 2 cups dried pasta
- 1 cup shredded cheese
- 1 can crushed red tomato
- 1 can tomato paste
- 1 can kidney beans
- 1 can black beans
- 2 tsp chili powder
- 2 tsp cumin
- 2 tsp garlic powder
- 1 lb. ground turkey
- 1 white onion
- 1 green pepper
- 1 Tbsp. cooking oil
- Pinch salt
- Pinch pepper

Materials

- Serving spoon
- Mixing bowl
- Fork
- Measuring cups
- Stove top or induction burner (hot plate)
- Saucepan
- Knives
- Cutting boards
- Wash cloths for cutting boards
- Serving bowl



Directions on next page

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Directions

1. Cook pasta in a pot of water according to recommendations on the back of the package. Drain and set aside.
2. In a large pot or sauce pan, pour 1 Tbsp of cooking oil and bring to medium heat.
3. Sauté peppers and onions in pot until sweating and semi-tender
4. Add raw turkey to the pot and cook, stirring occasionally, about 10 minutes or until cooked through.
5. Pour crushed red tomato, tomato paste, beans, and spices into pot, stirring with each ingredient. Be sure to drain the beans!
6. Simmer chili on low heat for at least 10 - 15 minutes, stirring occasionally.
7. Once chili has cooked, toss with pasta in a bowl until mixed.
8. Enjoy with a sprinkle of cheese on top!

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