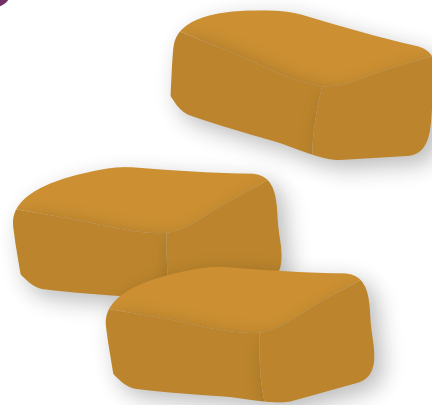


Caramel Chemistry

Collect

- 1 cup heavy cream
- 1 cup sugar
- ½ cup light corn syrup
- ¼ teaspoon salt
- 4 tablespoons of butter
- ½ teaspoon vanilla
- Large saucepan with tall sides
- Rimmed baking sheet
- Candy thermometer
- Wax paper
- Butter knife
- Adult safety partner



Get Started

1. This project uses a stove. Check with an adult for permission before you begin.
2. Prep your baking sheet by lining it with wax paper, and then sit it to the side.

Mix it, and bring on the heat

3. Add the heavy cream, sugar, corn syrup, and salt to your large saucepan and place it over high heat. Stir until the sugar dissolves.
4. Reduce the heat to medium and stir in the butter.
5. Allow the mixture to cook, without stirring until it reaches 248° F.
6. Remove the mixture from heat and mix in the vanilla.

Cool down and enjoy!

7. Ask your adult safety partner to help you carefully pour the mixture onto the baking sheet.
8. Allow the caramel to cool for a couple of hours.
9. Once cooled, use a butter knife to cut the caramel into bite-size pieces and wrap them individually in small pieces of wax paper.
10. Sample your creation!

Why is caramel brown?

Cream and butter are filled with proteins. When the sugar is heated with proteins, a chemical reaction occurs between the sugar and the amino acids found inside the proteins—causing browning and the creation of hundreds of flavor compounds. This reaction is called the Maillard Reaction after Louis-Camille Maillard, the French chemist who first described the process. Foods such as steak, toast, roasted coffee, and golden-brown french-fries all owe their color and flavoring to the Maillard Reaction.

