Do you like fudge? Did you know there is a lot of chemistry in making good tasting, creamy fudge?

So, what’s special about fudge? Well, fudge is not like most kinds of candy, because it contains tiny sugar crystals that make fudge taste delicious. The sugar crystals are so small, they don’t feel rough on your tongue.

The secret to making yummy fudge (that doesn’t feel “gritty” in your mouth) is allowing these tiny crystals to form at just the right time. Fudge is usually made with milk, butter, unsweetened chocolate, and about 85% sugar (sucrose). These ingredients get mixed together, and then cooked or boiled at 240 °F (115 °C). By letting the cooked fudge cool slowly without stirring, it keeps “seed crystals” from forming. That’s important, because once seed crystals form, they get bigger and bigger as the fudge cools, and a lot of big crystals can make the fudge feel gritty when you’re eating it. To make small crystals, you need to start growth of the seed crystals when the fudge has cooled to about 110 °F. This process lets you get a lot of tiny crystals … making a thick, smooth fudge!

There are two other candies that use sugar crystals. One is called fondant, a wetter version of fudge that you usually find inside soft-centered chocolates. The other is rock candy, in which there are a lot of large crystals of sugar.

The amazing secret of yummy fudge!
Tiny sugar crystals make fudge taste smooth

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