

Cinnamon Rolls with a Scale

Wet Ingredients:

120 grams milk
45 grams butter
45 grams sugar
2 eggs

Dry Ingredients:

525 grams sifted flour

For yeast, which Ms. Carsten did for you:

89 grams water
8.5 grams yeast
15 grams sugar

1. Preheat your oven to 375.
2. Activate the yeast with water and sugar. (MS. CARSTEN WILL DO THIS FOR YOU)
3. While yeast is activating cream the milk, butter, sugar, and eggs using the paddle of your kitchenaid.
4. Add 1/3 of the flour. Mix well.
5. Switch to the dough hook on your kitchenaid. Add the yeast mixture to your wet ingredients.
6. Add the flour a little at a time. You might not need all the flour! **Stop** adding flour when the dough is **not** sticky. The dough should pull away from the sides of the bowl.
7. Cover bowl with a towel and let dough rise on top of your oven while you prepare the filling.

Filling part 1:

29 grams butter

Filling part 2:

55 grams brown sugar
30 grams sugar
4 grams cinnamon

1. Melt the butter.
2. In a separate bowl, combine sugars and cinnamon.
3. Roll dough into a rectangle. Spread melted butter on dough, then sugar mixture.
4. Roll into a 12 inch log.
5. Slice log at 1 inch intervals with floss; arrange on their side to show the pinwheels.
6. Bake at 375 for 18-20 minutes. Enjoy!

Rolls

Ingredients:

8.5 grams yeast
155 g warm water
15 grams sugar for water
30 grams sugar for dough
30 grams warm milk
4 grams salt
14 grams oil
1 egg
280 grams sifted flour

1. Preheat oven to 425.
2. Activate the yeast by letting it sit in the warm water with 15 grams sugar. Let it sit until bubbly. It should smell like bread.
3. While yeast is activating, mix sugar, milk, salt, oil, and egg in the Kitchenaid.
4. Add one fourth of the flour and mix well.
5. After it is mixed, add in the yeast mixture and another one fourth of the flour. Mix well.
6. Add in the rest of the flour a little at a time while mixing. (If your dough is really sticky, continue adding extra flour until it forms a tighter ball of dough.)
7. Put a towel over your bowl and let dough sit for 10 minutes to rise.
8. After rising, shape dough into rolls on a greased cookie sheet.
9. Let rolls rise on top of the oven for 5-10 minutes.
10. Cook rolls at 425 for 12-15 minutes

Honey Butter

57 grams butter
28 grams honey
1/8 t cinnamon
Pinch salt

1. Combine butter, honey, cinnamon, and salt.
2. Enjoy!

Questions to consider with students:

Why should we use a scale when cooking?

How do you avoid weighing the bowl you're putting the ingredients in?

How do you care for a scale?

Match the function with the ingredient for Yeast Breads:

Flour	A. Flavor, slows growth of yeast
Yeast	B. Moisture
Liquid	C. Structure
Salt	D. Food for yeast
Sugar	E. Leavening agent

Match the following vocabulary words to the definitions when discussing yeast breads:

Fermentation	A. Allowing the dough to rise prior to baking, usually doubles in size
Kneading	B. Creating desired rolls, twists, buns, loaves etc.
Proofing	C. Final burst of rising when bread is placed in the oven.
Shaping	D. When yeast breaks sugar down into energy
Oven spring	E. Developing gluten by working the dough

True or False?

The straight dough method of bread baking is when all ingredients are combined and dough is kneaded, then set aside to rise.

The sponge method of bread baking is when yeast is combined with flour, liquid and sugar to make a batter, then it rises, and later other ingredients are added to make a stiff dough.

The batter or no-knead method of bread baking is when all ingredients are combined but dough is not kneaded.

Yeast grows better in very hot water.

<https://www.youtube.com/watch?v=zDEcvSc2UKA> Cook's Illustrated: Science, a Closer Look at Gluten video

Ideas to speed up rising time:

Oven: Allow covered dough to sit on top of preheating oven

Oven: Preheat oven to LOWEST temperature for 2 minutes, place a pan of hot water in the oven to create moisture, and allow dough to rise, covered, in the center of the oven

Microwave: heat 1 C water in the microwave for two minutes. Place covered dough in the microwave and close the door.

Warm water: place bowl of dough inside a larger bowl filled with warm water, and cover both bowls. Just make sure no water gets into your dough bowl!

Warm towel: use a towel fresh from the dryer to cover the dough bowl

Yeast bread recipes with weights:

<http://www.farmgirlfare.com/2011/01/farmhouse-white-easy-basic-white.html> (makes three loaves of white sandwich bread)

<http://www.food.com/topic/yeast> (this website lets you decide if you want US measurements—cups/teaspoons—or metric—weight)

Just for fun: chocolate soft pretzels with white chocolate chips <http://redstaryeast.com/chocolate-soft-pretzels-with-white-chocolate-chips/>

Scale recommendations:

<http://www.amazon.com/OXO-Grips-5-Pound-Pull-Out-Display/dp/B0020L6T7K> (OXO good grips 5 lb food scale)

<http://www.walmart.com/ip/37531706?wmlspartner=wlp&adid=2222222227026398440&w10=&w11=g&w12=c&w13=43385394632&w14=&w15=pla&w16=82954071152&veh=sem> (Ozeri Pronto Digital multifunction kitchen and food scale)

For more info about the science behind bread baking, check out

<http://www.seriouseats.com/tags/breadmaking%20101!>

Common kitchen weights:

<http://cafefernando.com/conversion-tables/> this website breaks ingredients down into a weight for each measuring cup!

<http://www.thekitchn.com/weight-conversions-for-flour-sugar-and-other-common-baking-ingredients-171316>

Dry Ingredients:

All-Purpose Flour: 1 cup = 4 1/2 oz
Bread Flour: 1 cup = 4 1/2 oz
Whole Wheat Flour: 1 cup = 4 1/2 oz
Cake Flour: 1 cup = 4 oz
Pastry Flour: 1 cup = 4 oz
White Granulated Sugar: 1 cup = 7 oz
Brown Sugar: 1 cup = 7 1/2 oz
Powdered Sugar: 1 cup = 4 oz
Chopped Nuts: 1 cup = 4 oz

Liquid Ingredients:

Most liquids: 1 cup = 8 oz
Water: 1 cup = 8 oz
Milk: 1 cup = 8 oz
Cream: 1 cup = 8 oz
Yogurt: 1 cup = 8 oz
Sour Cream: 1 cup = 8 oz
Honey: 1 cup = 12 oz
Oil: 1 cup = 7.5 oz
Butter: 1 cup = 8 oz

Bread Around the World!

Bagel: Chewy baked roll with a hole, often eaten with cream cheese. Introduced to America by Polish immigrants.

Pizza: Popular Italian pie first made as a way to use left over bread dough.

Fry Bread: Small round breads fried in hot oil. Made popular by Native Americans.

Pita Bread: Pocket bread or flat bread from the Middle East that is flat and round. Sometimes hollow.

Tortilla: Corn or flour dough patted into thin, flat rounds and cooked on a hot griddle.

Croissant: Flaky, tender crescent shaped rolls. Lots of layers of butter.

Scones: Like biscuits, but cut into triangles (sometimes round) and baked. Often eaten with tea.

Chapati: Flat, chewy rounds of bread served with curries, peanut butter and honey or cheese and tomato. From southern Asia (India).

Chinese Pork Bun: This classic, steamed yeast bun is filled with marinated pork, and soy and oyster sauces.

Lefse: Flat bread made from mashed potatoes, flour and liquid. Fried on a griddle. From Norway.