

Classic Croissants, Modern Techniques

with Colette Christian



Craftsy



Classic Croissants

Full Recipe

YIELD: 18 TO 22 CROISSANTS DEPENDING ON SIZE

Equipment

- Stand mixer
- Paddle and dough hook
- Spatula
- Scale
- Medium sized bowl
- Quarter sheet pan
- 1-gallon size zip-top bag or parchment paper
- Ruler
- Dry brush
- Rolling pin
- Wooden yardstick cut in half, or 2 rulers, preferably ¼" thick

Butter Block Ingredient

- 14 ounces unsalted butter

Make Butter Block

1. With a marker, draw a line 1 inch below the zip closure. This is the guide for shaping the butter block.
2. Cut butter in half and then into quarters, forming sticks, line the butter sticks in the bag.
3. Fold over the top of the bag along the drawn line. Do not seal the bag until the butter block is complete.
4. Gently flatten with a rolling pin. The end result is a flat sheet of butter that measures about 10" x 9".

Classic Croissants

Full Recipe, cont.



Dough Ingredients

(Percentages are baker's percentages)

- 13 oz. (369g) whole or 2% milk (room temperature, 70 F) (61%)
- 2½ teaspoons (10g) instant yeast (1.8%)
- 20 oz. (567g) all-purpose flour, unbleached (100%)
- 1½ oz. (43g) sugar (7.5%)
- ½ oz. (1 tablespoon/5g) dry milk powder (optional) (.8%)
- 1 oz. (28g) unsalted butter, softened (4.9%)
- ½ oz. (1 tablespoon/14g) fine sea salt (2.4%)

Mixing Dough

1. Combine milk and yeast in a mixer bowl fitted with dough hook. Stir for 10 seconds and then let sit for 5 minutes.
2. Add optional milk powder, stir for 10 seconds.
3. Add flour, sugar, butter and salt.
4. Mix on speed 1 for 1 minute, then speed 2 for 2 minutes. Knead briefly with no flour down for about 15 seconds to smooth. Do not over-knead.
5. Place in a buttered bowl or a lightly buttered zip-top bag, (do not squeeze bag airtight, leave plenty of air for the dough to expand) and let sit, covered or zipped up at room temperature for 1 hour.
6. Then place it in the refrigerator overnight. 8-10 hours

Classic Croissants

Full Recipe

Locking In the Butter & Completing the Turns

(Line a quarter sheet pan with a piece of parchment paper and at the top of the parchment paper, mark 0, 1, 2, 3)

1. Remove the butter block from the refrigerator. Check to make sure it is the correct temperature. The butter is the perfect temperature when the butter packet can be rolled on the edge of the counter without cracking and the bag or parchment paper peels away cleanly from the butter. It will still feel quite cool and should not look or feel soft.
2. Lightly flour your work surface and roll the dough into a rectangle about 10" x 15". The butter will cover two-thirds of the dough. (Save the butter wrapper — it's perfect for wrapping up the dough as it rests between turns in the freezer.) Shore the edges up with a ruler or bench scraper – the edges must be squared off so that they line up perfectly as you fold the dough. Brush off any excess flour with the dry pastry brush.
3. Place the butter block on the left side of the dough. There should be almost no border of raw dough at the top and bottom of the butter block. Fold the unbuttered side over the buttered side of the dough. Fold the buttered side over. Make sure all the edges are perfectly lined up.
4. Dust flour under the dough so that it does not stick. Lightly dust the top. Tap the dough to 10" on the short side and then start tapping out length on the long side. Tap to ½" and then roll the strip of dough until it measures 10" x 21". Maintain the rectangle shape as you tap and roll.
5. The dough will let you know how far it will go and it may spring back a little. This is normal, as the gluten strands tighten as we tap and roll.
6. Brush any excess flour off the dough with a dry pastry brush. Fold the dough in half, lightly crease the fold to mark the center of the dough. Bring the outside edges of the dough to the center and then create a small space for the dough to turn, fold the top edge over the bottom edge — this is your book fold. Dough should measure approximately 9½" x 6" or 7"
7. Wrap in butter wrapper, if saved, cover it with a piece of plastic wrap. Place the dough on a parchment-lined baking sheet, mark off the 0 and 1 and freeze 25 minutes, move to the refrigerator for an additional 10 minutes and set a timer for 25 minutes.
8. After 25 minutes, remove the dough from the freezer and move to the refrigerator for 10 minutes. If the dough is very cold and difficult to even tap, cover the dough and let sit on the work surface for 10 minutes, then start your second turn.

Classic Croissants

Full Recipe

9. After 10 minutes, unwrap and place on a lightly floured surface. Place the dough to start with the long fold facing you and the long open end closest to you. Begin by gently tapping the dough to ½" thick. Then roll the dough (you can rotate and maneuver the dough until it measures 10" x 21") and complete a tri-fold. Fold the dough in thirds (like a business letter). Always starting with the right side, fold the right side two-thirds over the left. Then fold the left side over the right. Wrap the dough, Mark off the 2 and place in the freezer for 25 minutes, then move to the refrigerator for an additional 10 minutes.
10. After 10 minutes, remove from the unwrap and place on a lightly floured surface. Place the dough to start with the long fold facing you and the long open end closest to you. Begin by gently tapping the dough. Then roll the dough (you can rotate and maneuver the dough until it measures 10" x 21" and complete a tri-fold. Fold the dough in thirds (like a business letter), always starting with the right side. Then fold the left side over the right.
11. After the last fold, the dough can be frozen, well-wrapped, for up to one month. To shape the same day, place the dough in the refrigerator for 1½ - 2 hours and then begin shaping. The dough can also be refrigerated overnight before shaping, no longer than 8-12 hours. After 8-12 hours the yeast can wake up and start C02 production (fermentation) and the dough will begin to get puffy and could potentially over-ferment, developing a very yeasty, alcohol flavor.



Classic Croissants

Half Recipe

YIELD: 9 TO 11 CROISSANTS

Equipment

- Stand mixer
- Paddle and dough hook
- Spatula
- Scale
- Medium sized bowl
- 1 quarter sheet pan
- 1-quart size zip-top bag or parchment paper
- Ruler
- Dry brush
- Rolling pin

Ingredients

(Percentages are baker's percentages)

- 6.5 oz. (184g) whole or 2% milk (room temperature, 70 F) (60%)
- 1¼ teaspoons (5g) instant yeast (1.8%)
- 10 oz. (283g) all-purpose flour, unbleached (100%)
- ¾ oz. (22g) sugar (7.5%)
- ¼ oz. (1½ teaspoons/3g) Dry milk powder (optional) (.8%)
- ½ oz. (14g) Unsalted butter, softened (4.9%)
- ¼ oz. (1½ teaspoons/7g) fine sea salt (2.4%)

Mixing Dough

1. Techniques are exactly the same, except the butter block is formed in a quart-sized zip-top bag.
2. The measurements of the lock in, rolling out the dough in preparation for turning it are half the measurements of the full-sized recipe.

Almond Filling

With Almond Paste

YIELD: 1⅔ CUPS, 13 OUNCES, 369G

Equipment

- Stand mixer fitted with paddle attachment
- Or a hand-held mixer fitted with standard beaters
- Spatula

Ingredients

(Percentages are baker's percentages)

- 4 oz. (113g) almond paste (100%)
- 2 oz. (57g) sugar (50%)
- 1 teaspoon (4g) vanilla extract (3.5%)
- 2 oz. (57g) unsalted butter (50%)
- 1 egg (1.73 oz./49g) egg (43%)
- 2¼ oz. (64g) graham cracker crumbs (56%)
- 1 oz. (28g) all-purpose flour (25%)



Method

1. Combine almond paste and sugar in mixer, fitted with the paddle attachment.
2. Mix for two minutes on low speed to break up the almond paste. It should be in small sugar coated pieces.
3. Add the butter, vanilla extract and mix on low speed for one minute until the ingredients come together. Then increase the speed to medium and mix an additional 1-2 minutes until smooth.
4. Add the egg, mix on low speed for 30 seconds and then increase the speed to medium and mix until smooth 1-2 minutes.
5. Add graham cracker crumbs on low speed to combine.
6. Add flour, mix on low speed just until the flour disappears.

Almond filling lasts 3-5 days in the refrigerator. It does not freeze well.

Almond Filling

Using Almond Flour

YIELD: 1½ CUPS, 12 OUNCES, 340G

Ingredients

- 3 oz (85g) unsalted butter
- 3 oz (85g) sugar
- 1 teaspoon lemon zest (about ¼ lemon) zested
- ½ tsp vanilla extract
- 1 egg
- 3 oz (85g) almond meal
- 1½ oz (43g) all-purpose flour
- ¼ tsp salt

Method

1. In a medium bowl, with a wooden spoon, cream butter, sugar, lemon and vanilla until smooth.
2. Add egg, mix to combine.
3. Add almond meal and flour mixing to combine.
4. Place in a piping bag. Filling can be used immediately or placed in the refrigerator until ready to use.

Let warm up slightly before using. Filling keeps refrigerated 5-7 days. This filling can be frozen, well wrapped up to one month.

Parisian Croissants

Shaping Method

Colette uses [Perfection Strips](#) to make sure her dough thickness is even when rolling. She also recommends [XXL food safe bags](#) for proofing shaped croissants.

Ingredients

- Use half of the full recipe of dough, reserve the other half in the refrigerator.
- Egg Wash: 2 eggs beaten with $\frac{1}{8}$ teaspoon (1-2 good pinches) salt until smooth

Method

1. Preheat oven to 400 F (conventional) or 375 F (convection).
2. Roll the dough into a strip that is 8" tall and 18" long it should be a little thicker than $\frac{1}{8}$ " but not as thick as a $\frac{1}{4}$ "
3. Trim all 4 sides $\frac{1}{16}$ " from the edge to open up the side walls.
4. Mark 4" increments along the bottom edge. Mark the top edge, left hand side at 2", then mark 4" increments from that point.
5. The first cut goes from the top 2" mark to the bottom edge of the dough, then cut connect the marks to form triangles. Refer to the video or to the diagram in the course materials.
6. Stretch croissant triangle as far as it will go. Lightly tap on the counter to stretch.
7. Stretch the base a little, fold the bottom edge $\frac{1}{4}$ " and then begin rolling, not too loose and not too tight.
8. Place on a parchment lined baking sheet, leaving at least 1 $\frac{1}{2}$ " between the croissants; they will grow. 8-9 will fit on a half sheet pan.
9. Place on a parchment lined baking sheet, several inches apart.
10. Proof in bag for 25-30 minutes until the croissants look puffy (like they took a breath and held it) and when lightly squeezed the finger imprint stays.
11. Egg wash and bake for 15 minutes, check and then reduce oven temperature by 50 degrees. Bake for an additional 8-10 minutes and check.
12. The croissants are done when they are an overall golden brown.

Leftover croissants can be frozen, thawed without unwrapping and then refreshing in a 350-degree oven for 5 minutes.

Almond Croissants

Shaping Method

Ingredients

- Use half of the full recipe of dough, reserve the other half in the refrigerator.
- Egg Wash: 2 eggs beaten with ⅛ teaspoon (1-2 good pinches) salt until smooth
- 1 recipe of almond filling of your choice (recipes on pages 6 and 7)
- 4 ounces of natural sliced almonds

Method

1. The initial shaping is the same as the Parisian croissant.
2. Stretch croissant triangle as far as it will go. Tap lightly on the counter to stretch.
3. Roll a small amount of almond filling into a log and place on the base (bottom edge of the croissant).
4. Stretch the base a little, fold over the filling and then begin rolling - not too tight, not too loose.
5. Place on a parchment lined baking sheet, several inches apart.
6. Place in a XXL zip-top bag with a mug or cup (½ full) of boiling water.
7. Proof in bag for 25-30 minutes until the croissants look slightly puff and when lightly squeezed the finger imprint stays.
8. Egg wash, top with sliced almonds and bake for 15 minutes, check and then reduce oven temperature by 50 degrees. Bake for an additional 8-10 minutes and check.
9. The croissants are done when they are an overall golden brown.

Leftover croissants can be frozen, thawed without unwrapping and then refreshed in a 350 degree oven for 5 minutes.

Shaping & Baking

Pain au Chocolat

OVEN 400 F (CONVENTIONAL), 375 F (CONVECTION)

Pain au Chocolat Shaping Method

Ingredients

- Egg Wash: 2 eggs beaten with $\frac{1}{8}$ teaspoon (1-2 good pinches) salt until smooth
- Use $\frac{1}{2}$ of the full recipe of dough, reserve the other half in the refrigerator.
- 18 chocolate batons, purchased, or chopped chocolate (semi-sweet) or good quality chocolate chips

Method

1. Roll the dough into an approximate 12" x 12" square - $\frac{1}{8}$ " thick.
2. Trim all 4 sides $\frac{1}{16}$ " from the edge to open up the side walls.
3. Cut the dough into 4" x 4" squares. Stretch squares slightly, to create more of a rectangle.
4. Brush a line of egg wash in the center of the square.
5. Place two strips of chocolate (batons, chopped chocolate or a line of chips) just below the center of the square.
6. Fold the top and bottom edges over the chocolate, meet the egg wash line and press and fold the croissant over, make sure the seam is now on the bottom.
7. Place on a parchment lined baking sheet, about 1 $\frac{1}{2}$ " apart.
8. Place in an XXL zip-top bag with a mug or cup ($\frac{3}{4}$ full) of boiling water.
9. Proof in the bag for 30-45 (may take longer) minutes until the croissants look puffy and when squeezed your finger imprint does not spring back.
10. Egg wash and bake for 15 minutes, check and then reduce oven temperature by 50 degrees. Bake for an additional 10-12 minutes and check. Every oven is different so they may take less time or more time in your oven. Take notes on your first batch.
11. The croissants are done when they are an overall golden brown and feel relatively light when picked up - if they feel heavy, return to the oven for an additional 5-7 minutes.

Optional Garnish: Place melted chocolate in a piping bag and snip off a small corner and pipe chocolate over the pain au chocolat. The piping bag can be fitted with a No. 2 writing tip.

Shaping & Baking

Ham & Cheese Croissants

Ham & Cheese Croissants Shaping Method

Colette uses a [6-wheel ribbon cutter](#) to make perfect squares of dough.

Ingredients

- Egg wash: 2 eggs beaten with $\frac{1}{8}$ teaspoon (1-2 good pinches) salt until smooth
- Use $\frac{1}{2}$ of the full recipe of dough, reserved from Pain au Chocolat.
- 4-6 ounces of sliced ham, Gruyère or a dry Swiss cheese, a dry cheddar will also work. The cheese can also be cut into sticks $\frac{1}{4}$ " thick.
- 2-3 ounces grated parmesan for garnish.

Method

1. Roll the dough into an approximate 12" x 12" square - $\frac{1}{8}$ " thick
2. Trim all 4 sides $\frac{1}{16}$ " from the edge to open up the side walls.
3. Cut the dough into 4" x 4" squares. Stretch squares slightly, to create more of a rectangle.
4. Keep scraps for belts.
5. Brush a line of egg wash along the bottom edge of each square.
6. Place a baton or slice of ham and cheese on the square. Do not overfill.
7. Fold up the bottom edge so that it is $\frac{1}{4}$ " below the top edge and press and then fold the croissant over, make sure the seam is now on the bottom.
8. Cut $\frac{1}{4}$ " strips of dough from your scraps to make belts, egg wash the croissant and tie a "belt" around each croissant.
9. Garnish with grated parmesan — leave the belt clear of cheese and egg wash for a nice contrast.
10. Place on a parchment lined baking sheet, several inches apart.
11. Place in a XXL zip-top bag with a mug or cup ($\frac{1}{2}$ full) of boiling water.
12. Proof in bag for 25-30 minutes until the croissants look slightly puff and when lightly squeezed the finger imprint stays.
13. Bake for 15 minutes, check and then reduce oven temperature by 50 degrees. Bake for an additional 8-10 minutes and check.
14. The croissants are done when they are an overall golden brown and feel relatively light when picked up. If they feel heavy, return to the oven for an additional 5-7 minutes.

Tips for Making Croissants in Warm Climates



1. Try to work in the early or later part of the day before or after it gets hot.
2. Have a clear space in your refrigerator so that you can quickly chill the dough if the butter starts to soften up — when it does you can feel the layers of the dough shift — put it in the refrigerator, covered for 15 minutes so that the butter firms up again.
3. Have all your tools and equipment ready so you can work quickly and efficiently.
4. Try to eliminate any distractions so you can work fast.
5. Chill your work surface with a baking tray filled with a layer of ice. Leave this on your work surface for 15-20 minutes, then remove, wipe off any condensation and start working.
6. If you can get a piece of polished marble or granite to work on that would be great; it stays cooler than a wood surface.
7. Marble pastry boards are available from kitchen supply stores. It may also be possible to buy a piece of marble or granite from a store that sells kitchen countertops; make sure it has been sealed as both materials are porous.

Suggested Timelines

Fitting Croissants Into Your Busy Life

Stretching Out the Process, Making Croissants Over Several Days

DAY ONE:

- Make croissant dough let sit at room temperature for one hour, in a buttered bowl or buttered zip-top gallon bag, then refrigerate overnight.
- Make butter block, chill in the refrigerator.

DAY TWO:

- Lock in butter and complete turns, resting the dough 25 minutes in the freezer and then move it to the refrigerator for an additional 10 minutes, in between turns.
- Once the turns are completed then the block of dough can be frozen, well-wrapped, for up to one month.
- The night before you want to shape your croissants, thaw overnight in the refrigerator.

SHAPING DAY:

- Shape thawed croissant dough, shape half the dough at a time and keeping the remaining half in the refrigerator helps keep the dough cold and butter layers intact.
- Croissants can be proofed and baked right after shaping or shaped croissants can be frozen for up to one month.



Croissants Start to Finish in One Day

It is possible to get to shaping in 3½ hours.

Start early to accommodate resting times.

- Make dough: Let sit at room temperature for one hour, covered, in a buttered bowl, then refrigerate for 30 minutes.
- Make butter block, chill in refrigerator
- After the 30 minute rest, lock in butter and complete turns, resting the dough 25 minutes in the freezer and then move it to the refrigerator for an additional 10 minutes in between turns.
- Once the turns are complete, rest the dough in the refrigerator for one hour.
- Begin shaping. Once shaped, proof egg wash and bake.

***Before using frozen shaped croissants, thaw overnight in the refrigerator, covered. The next morning set them up on a baking tray, proof, egg wash and bake.*

All About Yeast

Fresh Yeast

- Also called cake yeast, compressed yeast, or baker's yeast.
- Always hydrate this yeast in water, dissolving it until no chunks remain. Whisk gently, no need to create a lot of foam.
- Must be kept refrigerated, shelf life of two weeks.
- When fresh, it can create excellent volume.
- When it gets too old, it loses its leavening power and can impart off flavors to the bread.
- Not readily available except through food service purveyors.

Active Dry Yeast

- Most of its moisture is removed through dehydration.
- Mostly used by home bakers, not in professional bakeries.
- Active dry yeast must be hydrated 5 times its weight in warm water (105-110 F) and then left to stand for 5-10 minutes before it can be mixed into a dough.
- Active dry yeast contains many dead yeast cells. It is actually encapsulated in dead (dormant) yeast cells.
- The dead yeast cells contain glutathione (a protein fragment) which can be released into the dough if the yeast is not used properly. The usual outcome is that the dough will become slack or lack volume during fermentation and then in subsequent baking.
- Active dry yeast is not tolerant of temperature changes (refrigerating doughs and freezing) but it is an excellent choice for "start to finish" doughs.

Instant Yeast

- Developed in the early 1970s. It is finer than active dry yeast and it is finely cylindrical in shape. It contains less moisture than active dry yeast.
- It is easy to use and has a long shelf life.
- It is tolerant of temperature fluctuations, such as refrigeration and freezing of the dough.
- It does not have to be hydrated in water.
- It can be directly added to the flour.
- Unopened, instant yeast has a shelf life of 1 year. Opened and airtight it can last for months refrigerated.

All About Yeast

Osmotolerant Yeast

- Designed to be used in doughs that are acidic, for example, sourdoughs or ones that are dry and high in sugar.
- It is recommended for laminated and rich doughs.
- Use osmotolerant yeast when your dough has a fair amount of sugar in the dough - more than just a few tablespoons, like sweet roll dough and danish.

Rapid Rise Yeast (Fleischmann's brand) is instant yeast with nothing added to it.

Platinum Yeast (Red Star brand) is instant yeast with dough conditioners (improvers) added to it. It is important to know that Platinum yeast is not gluten-free. The dough improvers added to it are derived from wheat grain.

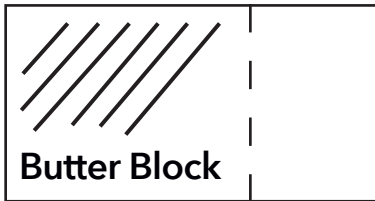
Yeast Substitution

- One form of yeast can be substituted for another as long as the correct substitution ratios are followed.
- 100% fresh yeast = 50% active dry yeast
- (Fresh yeast weight x 50% = active dry weight)
- 100% fresh yeast = 40% instant yeast
- (Fresh yeast weight x 40% = instant yeast weight)

Template

Measurements for Butter Incorporation and Laminating

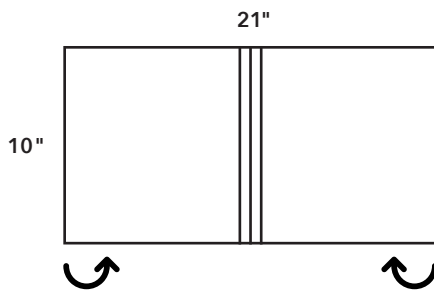
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BUTTER INCORPORATION

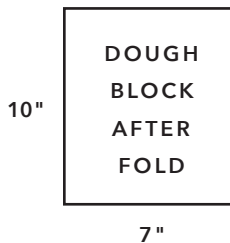
The butter block covers $\frac{2}{3}$ of the surface of the dough, aligned with the left side of the dough. Once the butter is in place, fold in thirds, unbuttered side first, butter side second.

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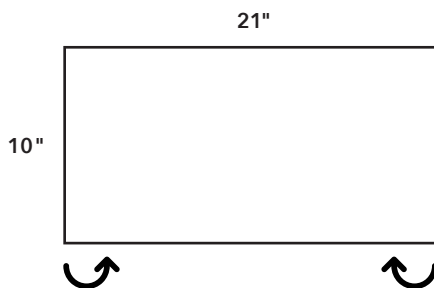


FIRST FOLD

Fold the right edge to the center first, then the left edge to the center. Be sure to leave a space in the center of the dough so the dough folds over easily, like the spine of a book. Finally fold both new edges of the dough together to create a book fold.

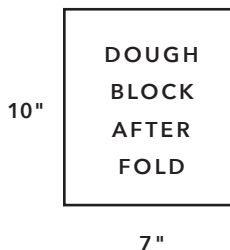


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SECOND AND THIRD FOLDS

Fold in thirds starting with the right side. This fold is just like folding a letter into thirds to put into an envelope.

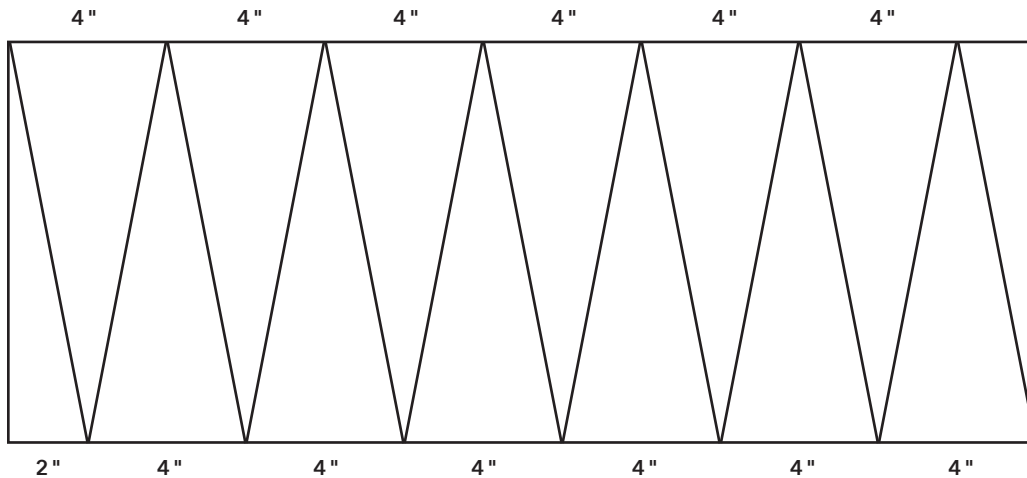


Croissant Cutting Diagrams

Cutting Parisian (Classic) & Almond Croissants

FORMULA

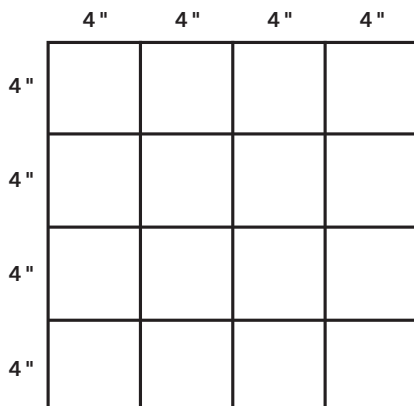
- The base measurement is half the height measurement.
- The first cut on the base should be half of the base width. Example: If the base measurement of each croissant is 4 inches then the first cut should be 2 inches.



The first cut properly offsets the triangles. Refer to the class video for more about shaping.

Cutting Pain au Chocolat and Ham & Cheese Croissants

- Both Pain au Chocolat and Ham & Cheese croissants are cut to 4" x 4" squares, 3" x 3" squares to make mini croissants.
- Roll dough to approximately 12" x 12". Every dough has variations in dimensions.
- Try to keep thickness 1/8" and the yield will be 12-16 squares.



Finishing Techniques



Pain au Chocolat

1. Egg wash center of the square.
2. Place one baton of chocolate or a row of chopped chocolate (or chocolate chips) on either side of the egg wash.
3. Fold edges to center, one at a time.
4. Place on baking tray, seam side down, and egg wash.
5. See video for more tips and tricks!

Ham & Cheese Croissants

1. Egg wash top edge of square.
2. Place ham and cheese near the bottom edge, fold up the bottom edge to meet the top edge. Seal.
3. Place on baking tray, seam side down.
4. Egg wash, sprinkle with cheese, and tie with dough scrap "belt."
5. See the video to watch Colette demonstrate this technique.