Macaron

Below you'll find a list of ingredients and equipment needed for your class. To ensure efficiency during class, please have all ingredients on hand before class begins. Any prep work to be done before class is highlighted in yellow. All recipes used in class will be in an attachment in your confirmation email. Please scroll past the equipment list for the recipes.

If you have any questions or concerns email us, bakingeducation@kingarthurbaking.com. All Zoom links are sent out on the day of class. If you have not received the link 1 hour before your class begins, please contact us at the email above.

INGREDIENTS *(total amount needed for the class)*

- ☐ *Sugar: 298g (1 ½ cups)*
- ☐ *Cream of tartar: ¼ teaspoon*
- ☐ *Eggs: 3 large, at room temperature, plus extra in case of breakage while separating**
- ☐ *Unsalted butter: 227g (1 cup), at room temperature*
- ☐ *Confectioners' sugar: 100g (¾ cup + 2 tablespoons)*
- ☐ *Almond Flour (not toasted!): 85g (¾ cup + 2 tablespoons)*
- ☐ *Natural food powders, if desired for color*

NOTES:

For our class, we will NOT be flavoring the Macaron. We advise you practice without trying to manipulate the batter in any way. Once you're confident in your skills you can start experimenting with additions. We will be flavoring the buttercream, see buttercream recipe for ideas.

***Please note that very fresh eggs and boxed egg whites are NOT recommended in this class.**

EQUIPMENT

- ☐ *Stand mixer with whisk attachment (required)*
- ☐ *Digital thermometer (required)*
- ☐ *Piping bags*
- ☐ *Piping tips #802 or #803*
- ☐ *Scissors*
- ☐ *Scale (preferred) or measuring cup set*
- ☐ *Measuring spoons*
- ☐ *Liquid measuring cup*
- ☐ *Mixing bowls: assorted sizes*
- ☐ *Sifter*
- ☐ *Silicone spatula*
- ☐ *Pot for cooking sugar*
- ☐ *Baking sheets with parchment paper or silicone baking mats*

French Macaron

YIELD: ABOUT FORTY 1" FILLED MACARON

INGREDIENTS

SHELLS

- ☐ *75g (2-3 large) egg whites, at room temperature*
- ☐ *75g (¼ cup + 2 tablespoons) sugar*
- ☐ *¼ teaspoon cream of tartar*
- ☐ *100g (¾ cup + 2 tablespoons) confectioners' sugar*
- ☐ *85g (¾ cup + 2 tablespoons) almond flour*
- ☐ *Natural food powders, if desired for color*

ASSEMBLY

- ☐ *1 batch of French buttercream*

DIRECTIONS

SHELLS

1. Line baking sheets with parchment paper. Set aside.
2. In the bowl of a stand mixer fitted with the whisk attachment, mix the egg whites, sugar, and cream of tartar on medium speed for about 3 minutes, until the sugar is dissolved.
3. Meanwhile, sift the confectioners' sugar, almond flour, and natural food powder into a bowl. If you are using dried spices, sift them into the almond mixture now.
4. Increase the mixer speed to medium-high. Continue beating the egg white mixture until it is thick and glossy and holds peaks. The peaks should resemble that of soft-serve ice cream, should be firm but still curl slightly over at the tip-avoid over-beating to stiff, dry peaks.
5. Gently fold the meringue into the almond flour mixture. Fold the mixture more vigorously to begin the process of macaronage. When ready, the batter should be shiny and will almost dissolve back into itself when streamed across the top.
6. Transfer the batter to a piping bag and pipe quarter-sized mounds of batter onto the prepared pans. The batter should be deflated enough that it does not retain a tail after piping.
7. When all macarons are piped, tap the tray on the table 2 times to remove air bubbles.
8. Allow the piped macarons to rest at room temperature, uncovered, until the surface is dry and a crust has formed. This process usually takes at least 30 minutes but can take up to 2 hours or longer in very humid environments.
9. Preheat oven to 320°F.
10. Bake the macarons for 10 to 15 minutes, or until they are set enough that you can't wiggle the tops from side to side. If the macarons are browning too much, reduce the oven temperature to 300°F and continue baking until set.

ASSEMBLY

1. Place the filling into a piping bag.
2. Match each shell with a partner of similar size to ensure uniform macaron.
3. Arrange the shells, flat side up and side by side on a clean sheet tray.
4. Holding one macaron shell, pipe filling onto the center of its flat side.
5. Place the second shell on top of the filling and gently press until the filling is even with the sides of the shells. Repeat with the remaining shells.
6. For best results, macarons should be allowed to age in the refrigerator for 24-48 hours before eating. Macarons are best enjoyed at room temperature, so remove from the refrigerator at least 1 hour before serving.
7. Macaron shells or filled macarons can be stored in an airtight container in the refrigerator for up to 1 week or frozen up to 1 month.

**Natural Food Powders:*

Yellow - sift in 1/2 teaspoon-1 teaspoon turmeric: powder to almond/confectioners' sugar mixture

Pink- sift in 1/2 teaspoon to 1 teaspoon beet root powder to almond/confectioners' sugar mixture

Brown- sift in 1/2 teaspoon to 11/2 teaspoons coc:oa powder to almond/confectioners' sugar mixture

Green- sift in 1/2 teaspoon -1 teaspoon matc:ha powder to almond/confectioners' sugar mixture

***You may substitute gel food color for natural food powders. Add a drop or two of chosen coloring during Step 4 - once the egg white mixture reaches medium-stiff peaks.*

French Buttercream

YIELD: ABOUT 425g (ABOUT 2 CUPS)

INGREDIENTS

- ☐ *25g (2 tablespoons) sugar*
- ☐ *½ teaspoon salt*
- ☐ *3 large (60g) egg yolks*
- ☐ *198g (1 cup) sugar*
- ☐ *57g (¼ cup) water*
- ☐ *227g (16 tablespoons) unsalted butter, at room temperature*

DIRECTIONS

1. In the bowl of an electric mixer fitted with the whisk attachment, beat the 25 grams (2 tablespoons) sugar, salt and egg yolks together on medium-high speed until pale in color.
2. In a sauce pot, combine the 198 grams (1 cup) sugar and water. Bring the mixture to a boil over medium-high heat, stirring just until the sugar is dissolved. Once the mixture comes to a boil, refrain from stirring it. Cook the sugar syrup to 238°F.
3. With the mixer running on medium-high speed, carefully pour the sugar syrup in a steady stream into the egg mixture. Avoid pouring the sugar mixture onto the whisk. Continue whipping until the mixture is thickened and glossy and feels just slightly warm to the touch.
4. With the mixer still running, add the butter a tablespoon at a time, whipping until smooth.
5. Flavor the buttercream as desired.
6. Store buttercream, well wrapped, in the refrigerator up to one week or freeze for up to three months.To use, thaw buttercream to room temperature. Place the buttercream in the bowl of an electric mixer fitted with the paddle attachment. With the mixer running, gently heat the bowl with a hair dryer until the buttercream around the edges just starts to melt. Continue mixing and heating until the buttercream is smooth and creamy. Alternatively, place the mixer bowl over a water bath until the edges of the buttercream just start to melt, then return the bowl to the mixer and beat on medium speed until the buttercream is smooth and creamy. Repeat the process of heating and beating, as needed, to reach the correct consistency.

FLAVORING IDEAS

Chocolate: 227g of melted, cooled chocolate to a full batch of buttercream

Coconut: 1 teaspoon coconut flavor to a full batch of buttercream

Coffee: 1 tablespoon of espresso powder mixed with 1 tablespoon vanilla extract to a full batch of buttercream

Fiori di Sicilia: 1 teaspoon of Fiori di Sicilia to a full batch of buttercream

Lemon: 1 teaspoon lemon oil to a full batch of buttercream

Vanilla: 2 teaspoons of vanilla extract or vanilla bean paste to a full batch of buttercream

Macaron Troubleshooting

Cracked?

1. The shells must dry sufficiently to form a skin otherwise the steam may bust through the top, causing cracks.
2. If the batter is under-macaronaged and is thick or lumpy, too much air will be trapped. The excess air escapes while baking, cracking the shell.
3. If the oven is too hot, the shells will rise too fast.Try reducing the oven temperature by 5-10°F.

Wrinkled?

1. Almond flour that is too oily will cause the tops to become blotchy and wrinkly.Try switching to a different brand.
2. If the oven temperature is too low, the shells may underbake causing the shells to sink and wrinkle as they cool.
3. Too much food coloring could be a factor. If using the liquid drops, try switching to powdered food coloring or gel paste.
4. If using cocoa powder, the fat within cocoa powder can cause the shells to come out wrinkly. Use less cocoa powder or try a different brand.

Rough?

1. The almond flour may be too coarse. Be sure to sift with the confectioners' sugar at least once. If necessary, process it in a food processor for a finer consistency or change the brand of almond flour.

No feet?

1. If the meringue is under-whipped, there is not enough air to make the shell rise.
2. If the batter is over-macaronaged there is not enough air within the shell to make it rise.
3. The drying time was too long, causing a skin that is too thick.
4. The drying time was too short, causing little to no skin to form. A fully dried shell should form a dry, almost leathery surface before going into the oven.
5. When the oven temperature is too low, the conversion of water to steam slows down, causing the top of the macaron to set before it has a chance to fully rise.Try increasing the oven temperature by 5-10°F

Lopsided?

1. A baking sheet that has a lip on one side can cause uneven air flow. Try baking on an upside-down baking sheet. Also, try piping the shells further apart from each other.
2. Even the slightest warped baking sheet can cause the shells to bake unevenly.Try using a heavy-duty flat sheet tray.
3. When piping, it is important to hold the piping bag perpendicular to the baking sheet and aim at the center of the template for even piping.
4. If using a convection oven, sometimes the fan is too strong and can cause the shell to become lopsided.Try using the conventional setting.
5. If the drying time is too short, it can cause the steam to unevenly push up and cause lopsided shells. A fully dried shell should form a dry, almost leathery surface before going into the oven.
6. The oven temperature may be too hot or too cold. If it's too cold, the feet form slowly and unevenly. If it's too hot, the inside expands unevenly.

Hollow?

1. If under-macaronaged, the shells could expand too fast, causing the gap between the smooth top and bottom.
2. If the oven is too hot, the shell will expand too fast and set too fast.Try decreasing the oven temperature by 5-10°F.
3. If the meringue is too stiff, excess air could cause the shell to become hollow.
4. The sheet pans with piped shells must be banged on a flat surface to release any larger air bubbles before drying

Browning?

1. If the oven is too hot, the shell may brown too quickly. Try reducing the oven temperature by 5-10°F.
2. If the shells stay in the oven too long, they can begin to brown, especially around the edges. Since the shells bake quickly, even just a minute or two can make the difference between perfectly baked shells and ones that are overdone. When checking for doneness (e.g., gently testing for no wiggle), keep a close eye on the time-small adjustments matter.

Sticking?

1. If the shells are underbaked, the gooey batter will stay on the parchment while the shell lifts. Try adding a couple more minutes to the bake time.
2. If the oven temperature is too low, it can cause the shells to cave in a bit and cause the shells to stick.
3. The shells should be completely cooled before removing them from parchment or Sil pat. Placing them in the freezer for 5-10 minutes can also help the shell to be released more easily.
4. Try using a Silpat or a parchment paper with a silicone coating.

