VANILLAGOODS BAKING ACADEMY · ICE CREAM & FROZEN DESSERTS

Course workbook

Ice Cream at Home

Custard bases, churning, sorbets



Beginner · 5 video lessons · 36 minutes of video · Notes, quizzes and a practice log

By the end you'll be able to

- Cook a custard ice cream base
- Churn and harden ice cream
- Make no-churn ice cream and sorbet

Inside

Start here: how to use this workbook and your lesson plan 2
Lesson 1 · Vanilla bean custard base 3
Lesson 2 · Churning and hardening 5
Lesson 3 · No-churn vanilla ice cream 7
Lesson 4 · Fruit sorbet 9
Lesson 5 · Keeping ice cream scoopable 11
Answer key 13
Key points from every lesson, and what to do next 14

Lesson videos by Food Wishes, America's Test Kitchen, Handle the Heat, The Domestic Geek and Adam Ragusea, watched on YouTube from the course page.

This workbook belongs to _____

START HERE

How to use this workbook

This workbook goes with the free video course **Ice Cream at Home** on vanillagoods.com. Watch each lesson there, then use these pages to keep what you learned and to track what you have practised.

1

Watch

Open the lesson page and watch the creator's video. Jot quick notes on the lined space as you go.

2

Read and tick

Read the VanillaGoods notes, then tick each key point once you can explain it in your own words.

3

Check and practise

Answer the three questions, compare with the answer key on page 13, then log your bake.

Your lesson plan

	LESSON	VIDEO	WATCHED	QUIZ	PRACTISED
1	**Vanilla bean custard base** Video by Food Wishes	7 min	☐	☐	☐
2	**Churning and hardening** Video by America's Test Kitchen	7 min	☐	☐	☐
3	**No-churn vanilla ice cream** Video by Handle the Heat	7 min	☐	☐	☐
4	**Fruit sorbet** Video by The Domestic Geek	6 min	☐	☐	☐
5	**Keeping ice cream scoopable** Video by Adam Ragusea	9 min	☐	☐	☐

Tools you'll see

Ice cream maker · Instant-read thermometer · Fine-mesh strainer · Saucepan · Insulated ice cream tubs · Blender · Ice cream scoop · Hand mixer · 9×5 loaf pan · Silicone spatula · Mixing bowls

Any brand works. The lessons show what each tool is for.

Keep track online too

On each lesson page, "Mark complete" saves your progress in your browser, with no account. Finish every lesson and the course page lets you print a free certificate of completion.

Vanilla bean custard base

Video by **Food Wishes**: *"Frozen Vanilla Custard - French Vanilla Ice Cream Recipe - How to Make Custard Style Ice Cream"*

vanillagoods.com/pages/baking-lesson/vanilla-ice-cream-at-home-1-vanilla-bean-custard-base

Cook a French-style vanilla custard base, the richest, smoothest foundation for homemade ice cream.

Key points

- [ ] Cook the custard to about 170–180°F, never boiling
- [ ] Strain and chill the base thoroughly
- [ ] A real vanilla bean gives the deepest flavor

Step by step

- Heat milk, cream, part of the sugar and a split, scraped vanilla bean until steaming
- Whisk egg yolks with the rest of the sugar
- Temper the yolks with the hot cream, then return everything to the pan
- Cook, stirring, until the custard coats the back of a spoon (about 170–180°F)
- Strain, then chill at least 4 hours, ideally overnight, before churning

Why chill overnight

A cold base churns faster, which makes smaller ice crystals and a smoother ice cream. Resting also lets the vanilla flavor deepen.

VanillaGoods tip

Rinse and dry the used pod and bury it in sugar to make vanilla sugar for your next batch.

TOOLS IN THIS LESSON: Ice cream maker | Instant-read thermometer | Fine-mesh strainer | Saucepan

NOTES WHILE YOU WATCH

✓ Check yourself

Three quick questions from this lesson. Mark your answers, then compare with the answer key on page 13.

1 How do you know the custard base is cooked enough?

- (A) It coats the back of a spoon, about 170 to 180°F
- (B) It boils
- (C) It turns yellow

2 Why chill the base overnight before churning?

- (A) The eggs need time to set
- (B) A cold base churns faster, which means smaller ice crystals
- (C) Warm bases do not fit in the machine

3 What can you do with the used vanilla pod?

- (A) Throw it out; it has no flavor left
- (B) Churn it with the ice cream
- (C) Rinse, dry and bury it in sugar for vanilla sugar

Practice log

Practice is where the lesson sticks. Note what you made and what you would do differently.

WHAT I MADE	DATE AND HOW IT WENT
	☆ ☆ ☆ ☆ ☆

WHAT WENT WELL

WHAT I'D CHANGE NEXT TIME

Churning and hardening

Video by **America's Test Kitchen**: *"How to Make Homemade Ice Cream Without A Machine"*

vanillagoods.com/pages/baking-lesson/vanilla-ice-cream-at-home-2-churning-and-hardening

Churn ice cream in a machine, or make it without one as in this video, then harden it in the freezer for a scoopable texture.

Key points

- [ ] Freeze the machine's bowl at least 24 hours
- [ ] Churn until thick like soft-serve
- [ ] Harden in the freezer for 4+ hours

With a machine

- Freeze the canister at least 24 hours; it should not slosh when shaken
- Churn a well-chilled base until it looks like soft-serve, usually 20–25 minutes
- Add mix-ins in the last minute

Without a machine

This video uses a whipped-cream style base. Because the air is whipped in before freezing, the ice cream sets light and creamy without churning, which makes it ideal for flavor variations.

Hardening

Transfer the ice cream to a chilled container, press parchment onto the surface to prevent ice crystals and freeze at least 4 hours before scooping.

TOOLS IN THIS LESSON: Ice cream maker | Insulated ice cream tubs | Blender | Ice cream scoop

NOTES WHILE YOU WATCH

✓ Check yourself

Three quick questions from this lesson. Mark your answers, then compare with the answer key on page 13.

1 **How long should the machine's bowl freeze before churning?**

- (A) At least 24 hours
- (B) About 2 hours
- (C) 30 minutes

2 **Ice cream is churned enough when it looks like...**

- (A) Thick cream
- (B) Soft-serve
- (C) A solid block

3 **After churning, the ice cream needs...**

- (A) Serving right away
- (B) Another churn the next day
- (C) At least 4 hours in the freezer to harden

Practice log

Practice is where the lesson sticks. Note what you made and what you would do differently.

WHAT I MADE	DATE AND HOW IT WENT
	☆ ☆ ☆ ☆ ☆

WHAT WENT WELL

WHAT I'D CHANGE NEXT TIME

No-churn vanilla ice cream

Video by **Handle the Heat**: *"3 Simple (No Churn Methods!) To Make Ice Cream WITHOUT an Ice Cream Machine"*

vanillagoods.com/pages/baking-lesson/vanilla-ice-cream-at-home-3-no-churn-vanilla-ice-cream

Several ways to make ice cream without a machine, including the popular sweetened condensed milk method.

Key points

- [ ] Whipped cream supplies the air a machine would add
- [ ] Fold gently to keep the volume
- [ ] Freeze at least 6 hours

The condensed milk method

- Whip cold heavy cream to stiff peaks
- Stir vanilla into sweetened condensed milk
- Fold the two together gently, keeping as much air as possible
- Spread in a loaf pan or container and freeze at least 6 hours

Other methods in this video

You can also freeze any custard base in a shallow pan and stir it every 30 minutes, or freeze it in cubes and blend in a food processor. Both break up ice crystals the way churning does.

VanillaGoods tip

No-churn ice cream is very sweet, so a strong vanilla flavor balances it. Use 1–2 teaspoons of pure extract or the seeds of a vanilla bean.

TOOLS IN THIS LESSON: Hand mixer · 9×5 loaf pan · Insulated ice cream tubs · Silicone spatula

NOTES WHILE YOU WATCH

✓ Check yourself

Three quick questions from this lesson. Mark your answers, then compare with the answer key on page 13.

1 **In no-churn ice cream, what replaces the air a machine would add?**

- (A) Baking powder
- (B) Whipped cream
- (C) Extra sugar

2 **How long does the condensed-milk version freeze before serving?**

- (A) About 1 hour
- (B) About 3 hours
- (C) At least 6 hours

3 **Why use a strong vanilla flavor in no-churn ice cream?**

- (A) It is very sweet, and vanilla balances the sweetness
- (B) Vanilla makes it freeze faster
- (C) Vanilla replaces the eggs

Practice log

Practice is where the lesson sticks. Note what you made and what you would do differently.

WHAT I MADE	DATE AND HOW IT WENT
	☆ ☆ ☆ ☆ ☆

WHAT WENT WELL

WHAT I'D CHANGE NEXT TIME

Fruit sorbet

Video by **The Domestic Geek**: *"5 EASY Fruit Sorbets | Dairy Free Summer Desserts!"*

vanillagoods.com/pages/baking-lesson/vanilla-ice-cream-at-home-4-fruit-sorbet

Make bright, dairy-free fruit sorbets and get the sugar balance right so they scoop smoothly.

Key points

- [ ] Sugar keeps sorbet soft, not just sweet
- [ ] Lemon or lime juice brightens the fruit
- [ ] Blend frozen fruit for quick versions

The balance

Sugar lowers the freezing point, so too little makes an icy block and too much keeps sorbet slushy. Most fruit sorbets work with roughly 1 part simple syrup to 2–3 parts fruit purée, adjusted for the fruit's sweetness.

Step by step

- Purée ripe or frozen fruit until very smooth; strain seedy fruits
- Add simple syrup and a squeeze of citrus, then taste
- Chill well and churn, or blend frozen fruit directly for a quick sorbet
- Freeze in a covered container until firm

Watch for

A tablespoon of corn syrup or a splash of alcohol keeps sorbet softer in the freezer.

TOOLS IN THIS LESSON: Blender, Ice cream maker, Ice cream scoop, Insulated ice cream tubs

NOTES WHILE YOU WATCH

✓ Check yourself

Three quick questions from this lesson. Mark your answers, then compare with the answer key on page 13.

1 What happens with too little sugar in a sorbet?

- (A) It stays slushy
- (B) It separates
- (C) It freezes into an icy block

2 A typical starting balance is about...

- (A) 1 part syrup to 2 to 3 parts fruit purée
- (B) Equal parts syrup and purée
- (C) 3 parts syrup to 1 part purée

3 What keeps sorbet softer in the freezer?

- (A) More water
- (B) A tablespoon of corn syrup or a splash of alcohol
- (C) Freezing it longer

Practice log

Practice is where the lesson sticks. Note what you made and what you would do differently.

WHAT I MADE	DATE AND HOW IT WENT
	☆ ☆ ☆ ☆ ☆

WHAT WENT WELL

WHAT I'D CHANGE NEXT TIME

Keeping ice cream scoopable

Video by **Adam Ragusea**: *"Ice cream made with two bowls — no machine needed"*

vanillagoods.com/pages/baking-lesson/vanilla-ice-cream-at-home-5-keeping-ice-cream-scoopable

Why homemade ice cream freezes rock-hard, and how sugar, fat, storage and a quick ice-and-salt method keep it smooth and scoopable.

Key points

- [ ] Sugar and fat keep ice cream soft
- [ ] Fast freezing makes smaller ice crystals
- [ ] Store airtight, in the back of the freezer

What keeps it soft

- Sugar lowers the freezing point; don't cut it too much
- Fat and air make the texture creamy
- A tablespoon or two of alcohol or corn syrup keeps it softer
- Chilling the base and equipment first freezes it faster, with smaller crystals

This video's method

This video makes Philadelphia-style vanilla ice cream (no eggs) by stirring the base in a metal bowl nested in a larger bowl of ice and salt. Salt lowers the ice's temperature well below freezing, so the base freezes quickly as you stir.

Storage

Use a shallow, airtight container, press parchment on the surface and keep it at the back of the freezer. Let it sit 5–10 minutes before scooping.

TOOLS IN THIS LESSON: Insulated ice cream tubs | Ice cream scoop | Mixing bowls | Ice cream maker

NOTES WHILE YOU WATCH

✓ Check yourself

Three quick questions from this lesson. Mark your answers, then compare with the answer key on page 13.

1 Which of these helps keep homemade ice cream soft?

- (A) Cutting the sugar in half
- (B) Keeping the sugar and fat in the recipe
- (C) Skipping the chill before churning

2 Why does fast freezing matter?

- (A) It saves energy
- (B) It keeps the vanilla flavor
- (C) It makes smaller ice crystals and a smoother texture

3 What does the salt do in the ice-and-salt bowl method?

- (A) Lowers the ice's temperature well below freezing so the base freezes quickly
- (B) Flavors the ice cream
- (C) Keeps the bowl from sliding

Practice log

Practice is where the lesson sticks. Note what you made and what you would do differently.

WHAT I MADE	DATE AND HOW IT WENT
	☆ ☆ ☆ ☆ ☆

WHAT WENT WELL

WHAT I'D CHANGE NEXT TIME

ANSWER KEY

Check your answers

One correct answer per question. If you missed one, the note explains why, and the lesson page has the full notes and the video.

1. Vanilla bean custard base

1 **A** Cook, stirring, until it coats the back of a spoon at about 170 to 180°F, never boiling, then strain.

2 **B** A cold base churns faster, making smaller ice crystals and a smoother ice cream; resting also deepens the vanilla flavor.

3 **C** A rinsed, dried pod buried in sugar makes vanilla sugar for the next batch.

2. Churning and hardening

1 **A** Freeze the canister at least 24 hours; it should not slosh when shaken.

2 **B** Churn a well-chilled base until it looks like soft-serve, usually 20 to 25 minutes, adding mix-ins in the last minute.

3 **C** Transfer to a chilled container, press parchment on the surface and freeze at least 4 hours before scooping.

3. No-churn vanilla ice cream

1 **B** Cold cream whipped to stiff peaks supplies the air, so fold it gently into the condensed milk to keep the volume.

2 **C** Spread it in a loaf pan or container and freeze at least 6 hours.

3 **A** No-churn ice cream is very sweet, so 1 to 2 teaspoons of pure extract or a vanilla bean's seeds balance it.

4. Fruit sorbet

1 **C** Sugar lowers the freezing point: too little makes an icy block and too much keeps the sorbet slushy.

2 **A** Most fruit sorbets work with roughly 1 part simple syrup to 2 to 3 parts fruit purée, adjusted for the fruit's sweetness.

3 **B** A tablespoon of corn syrup or a splash of alcohol keeps sorbet scoopable.

5. Keeping ice cream scoopable

1 **B** Sugar lowers the freezing point and fat makes the texture creamy; cutting them makes ice cream rock-hard.

2 **C** Chilling the base and equipment first freezes the mix faster, with smaller crystals.

3 **A** Salt lowers the temperature of the ice well below freezing, so the base in the inner bowl freezes quickly as you stir.

WHEN YOU'VE FINISHED

Three things to do next

1

Mark each lesson complete

The "Mark complete" button on every lesson page saves your progress in your browser. No account, nothing to sign up for.

2

Print your certificate

Once all 5 lessons are marked complete, the course page prints a free certificate of completion with your name on it. It records what you finished; it is not an accredited qualification.

3

Bake it

Practice with VanillaGoods recipes that use what this course teaches.

vanillagoods.com/pages/recipes?q=vanilla%20ice%20cream

NEXT ON THE LEARNING PATH

Buttercream & Piping

Beginner · Buttercreams, piping, glazes

vanillagoods.com/pages/baking-course/buttercream-and-piping

Free guide for this course: “Ice cream base ratios”, Custard, Philadelphia and no-churn bases at a glance. Get it from the course page.

Baking with real vanilla? VanillaGoods keeps Madagascar, Uganda and Tahiti vanilla in stock, along with coffee and tea, at vanillagoods.com.

✧ Key points from every lesson

1. Vanilla bean custard base

- Cook the custard to about 170–180°F, never boiling
- Strain and chill the base thoroughly
- A real vanilla bean gives the deepest flavor

2. Churning and hardening

- Freeze the machine's bowl at least 24 hours
- Churn until thick like soft-serve
- Harden in the freezer for 4+ hours

3. No-churn vanilla ice cream

- Whipped cream supplies the air a machine would add
- Fold gently to keep the volume
- Freeze at least 6 hours

4. Fruit sorbet

- Sugar keeps sorbet soft, not just sweet
- Lemon or lime juice brightens the fruit
- Blend frozen fruit for quick versions

5. Keeping ice cream scoopable

- Sugar and fat keep ice cream soft
- Fast freezing makes smaller ice crystals
- Store airtight, in the back of the freezer

The lesson videos are by independent creators (Food Wishes, America's Test Kitchen, Handle the Heat, The Domestic Geek and Adam Ragusea) and play in YouTube's own player on the lesson pages; this workbook links to them and copies nothing. Notes, key points, questions and this workbook are written by VanillaGoods for home bakers.

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