



HOW TO: WHISK AND EMULSIFY

Summary: Can you picture a chef rapidly whisking a bowl of cream or emulsifying a salad dressing? It is a common image that showcases skill and technical ability in the kitchen. With a little practice, you can learn to whisk just like a professional chef. This lesson will introduce you to whisking and help you practice your technique!

Time: 60 minutes

Before you get started:

- Collect all the following materials.

Materials:

- Bowl
- Whisk
- Cooking oil
- Water

Vocabulary:

- **Emulsion:** a mixture of two liquid ingredients that would not normally mix.
- **Emulsifier:** an ingredient that stabilizes an emulsion. Mustard, egg yolks, and mayonnaise are common emulsifiers.



HOW TO: WHISK AND EMULSIFY

READ:

- Whisking is a basic technique for mixing ingredients together quickly. You can whisk together dry or wet ingredients separately or combine the two by whisking.
- Whisking is often used to make an emulsion. An emulsion is a mixture of two or more liquid ingredients that don't normally stay mixed together like oil and vinegar.
- You can whisk using a whisk, a fork, or even chopsticks!
- You can whisk using a back and forth, stirring in a circle, or looping up into the air method. Try around with all three of these to get a feel for each.

WATCH: View the [How to Whisk](https://vimeo.com/475590083) video at <https://vimeo.com/475590083> to see a demonstration of whisking techniques.

READ: Sometimes when you are whisking your bowl can move around on the countertop a lot. Try these simple tricks to stabilize the bowl:

- **Place your bowl on top of a damp kitchen towel.** Run a kitchen towel under water, wring it out, leaving it damp but not dripping. Shape the towel into a small ring on your countertop and then place your bowl into the ring.
- **Use a saucepan to stabilize your bowl.** Place your bowl over an empty saucepan, making sure the rim of the bowl hangs over the sides of the saucepan so it doesn't fall all the way in.

DO: Set up your workstation. Get out your bowl, oil, water, whisk. If you don't have a whisk, that's okay! You can practice with a fork or chopsticks. The motion is the same as with a whisk. Try to mix as vigorously as you can without spilling any of the liquid.

- Pour 2 tablespoons each of oil and water into your bowl.
- Whisk them together. You should see lots of tiny droplets of oil mixed in with the water. The mixture should look cloudy and pale white. This is an emulsion.
- The mixture will quickly begin to separate after you stop whisking. Larger oil bubbles will form and float on top of the water.
- Once this has happened, you can keep whisking and practicing your technique. See how quickly you can get it back to a cloudy white mixture.
- If you are spilling frequently, try a larger bowl or mixing more slowly.



HOW TO: WHISK AND EMULSIFY

READ: Emulsions can be stable or unstable. Your oil and water mixture is an unstable emulsion because the oil and water quickly separate from each other. An emulsifier can make this emulsion more stable and can keep the oil and water mixed together for longer. Many common household ingredients like mustard and egg yolks are good emulsifiers.

DO: Add a teaspoon of mustard, mayonnaise, honey, ketchup, or sour cream to your mixture and whisk it together again. Notice if this new mixture takes longer to separate than before.

DO: If you are completing this lesson with a class, ask your teacher what recipe they would like you to complete. If you are doing this lesson with your family or on your own, see our student notes for what recipes and lessons come next!

CLEAN: Now that you are done in the kitchen, it's time to clean up! Go to the lesson, [A Clean Kitchen](#) to download your [Cleaning Checklist](#).

REFLECT: How'd it go? Go to someone in your house and demonstrate what you learned. How long do you think you will have to practice to master whisking and emulsifying?

Student Notes: Try out these recipes that utilize whisking and emulsifying:

- Try our recipe for [Creating Your Own Any Organic Greens Pesto](#).
- Try making scrambled eggs by first whisking the eggs. Make sure to whisk them until there is no remaining white or yolk, only an even mixture of them.
- Did you know that nearly all salad dressing recipes use emulsification? Practice your recipe researching skills and look up a recipe for a salad dressing! Our [Five-Ingredient Recipe](#) lesson gives you some good tips on how to search for recipes.
- Do a quick search online to see how many different types of whisks you can find! You may be surprised to learn how many specialized shapes there are for different ingredients.
- You can also make an emulsion by shaking a jar with a tightly sealed lid or by using a blender.

Teacher Notes:

- If students are completing this lesson as part of the kitchen curriculum, [Cooking with Curiosity: Challenging Perfection with Reflection](#), this lesson is 3.3, the third lesson of Unit 3.
- For sections that instruct students to READ, you can record yourself reading aloud and send it to students. Direct them to read along with the recording. This is a helpful strategy for differentiating learning that supports all students, especially English Language Learners.

References:

How to Whist (2020). Edible Schoolyard Project [Video]. Retrieved from <https://vimeo.com/475590083>

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