

# Food Science for the Win

## Simple Vegetable Soups

### Resource Guide



The kitchen is an ideal lab for experimenting and being curious while embracing your inner scientist. Explore the science of making simple vegetable soups.

## Basic Concepts

- **Soup:** Soup is a dish based in flavorful liquid, like stock or coconut milk. There are generally three categories of soup: brothy, chunky, and smooth. Brothy soups are clear and light. Chunky soups are hearty with lots of ingredients and longer cooking times, like chili. Smooth soups are in between with a range of ingredients that are often blended as the finishing step.

## Basic Equipment

- **Blender or Food Processor:** Both pieces of equipment mix or blend by using twirling blades at varying speeds to break up food ingredients into small pieces. A blender or immersion blender will result in a smoother texture, while a food processor will result in a more rough or chunky texture.
- **Chef's knife:** This versatile knife has a curved back or spine, and the cutting blade can vary in curvature. It's especially helpful to have a sharp chef's knife intended for slicing when cutting tomatoes.

## Basic Techniques

- **Chopping** vegetables can be done roughly or finely. Ingredients with thinner textures, like tomatoes, or ingredients that will later be blended can be chopped roughly, while ingredients that have thicker textures, like onions or garlic, should be chopped more finely.
- **Salting** enhances flavor and balances the acids and oils in soups like gazpacho.
- **Blending** ingredients in a soup with a blender or food processor breaks down ingredients into smaller pieces for a smoother texture.
- **Roasting** soup or gazpacho ingredients before blending can create different flavors. For tomatoes, roasting enhances sweetness. For onions and garlic, roasting enhances aromas, which results in a fuller flavor.

## Suggested Resources

- **The Food Lab by J. Kenji López-Alt:** This is a very accessible science cookbook. The author provides amazing photographs with a wide variety of recipes and serves as a source of experimentation inspiration. The eBook is available on [OverDrive](#).
- **Salt, Fat, Acid, Heat: Mastering the Elements of Good Cooking by Samin Nosrat and art by Wendy MacNaughton:** This beautifully written and illustrated cookbook walks you through mastering the four basics of cooking: salt, fat, acid, and heat. The eBook is available on [OverDrive](#).
- **A José Andrés Masterclass on Gazpacho and Life (video) from Munchies by VICE:** Award winning chef José Andrés shows how to make gazpacho by listening to your vegetables and going off-recipe. This video contains adult language.
- **How to Make Easy Gazpacho (link) by Emma Christensen for The Kitchn:** This easy to follow recipe includes the history of gazpacho and suggestions for personalizing your approach with a variety of toppings and added ingredients.
- **Tomato Basil Soup (link) by Caroline Lange for The Kitchn:** As days get chillier, swap out gazpacho for hot tomato basil soup made with fresh tomatoes, perfect with crusty bread. Using fresh ingredients means you can forgo the dairy!
- **Easy French Ratatouille (link) by Laure Joliet for The Kitchn:** Make the most of your garden bounty with this straightforward ratatouille French stew recipe. This recipe calls on tomatoes, eggplant, zucchini and sweet peppers and also encourages you to experiment with ingredients you have on hand.