

FOOD SCIENCE BIBIOGRAPHY

Atkins, P.W., *Molecules*, Freeman, 1987. Scientific America Library series. Great information about a wide range of molecules, including many that are food-related, e.g., sugars, fats, and sensory.

Borer, Linda, Carole Magnusson, and Bob Fendall. "The Chemistry of Coffee." *The Science Teacher*, May 1994, pp. 36-38. Background and student experiment centered around pH of coffee.

Cobb, Vicki. *Science Experiments You Can Eat*. Lippincott, 1972. Approximately 40 recipes which double as science experiments. Easy to understand and execute. A gold mine of ideas for science teachers (any level) or scientifically curious eaters.

Cobb, Vicki. *More Science Experiments You Can Eat*. Lippincott, 1979. Approximately 30 more food-oriented experiments. A little more experimental, a little less edible, and slightly more difficult than the previous volume, but still full of great ideas.

D'Amico, Joan, and Karen Eich Drummond. *The Science Chef: 100 Fun Food Experiments and Recipes for Kids*. John Wiley & Sons, 1995. Title is self-explanatory.

DeVito, Alfred. *Teaching With Eggs*. Creative Ventures, Inc. (Box 2286, West Lafayette, Indiana, 47906), 1982. Over 40 short experiments and activities using eggs.

Gardiner, Anne and Sue Wilson, with The Exploratorium. *The Inquisitive Cook*. Owl Books, 1998. This is a book in The Accidental Scientist series created by The Exploratorium. An outstanding treatment of the science that is involved in cooking. The book explores the science behind Cooks's Queries (e.g., Why do some recipes call for both baking powder and baking soda?...Can I add extra baking powder if I want extra-high muffins?...etc.). See for Yourself activities are small experiments on food that you perform yourself to discover some of the science in cooking. An extremely readable and doable book in a compact (139 pages), friendly format.

Grosser, Arthur. "The Culinary Alchemy of Eggs." *American Scientist*, March-April 1983, pp. 129-131. Chemistry and physics of cooking eggs.

Hillman, Howard. *Kitchen Science*. Revised Edition, Houghton Mifflin, 1989. A non-technical look at the science behind cooking. Interesting and intelligent, yet easy to read. Format is built around questions, e.g., Why does a lobster turn red when cooked? A must-have for a food science library. Check for more recent editions.

Mandell, Muriel. *Simple Kitchen Experiments: Learning Science With Everyday Foods*. Sterling Publishing Co., New York, 1994 (paperback). Title is self-explanatory.

McGee, Harold. *The Curious Cook*. North Point Press, 1990. Subtitled "More Kitchen Science and Lore." By the author of *On Food and Cooking* (see below). Sample subjects: why do lettuce, avocados, and basil leaves turn brown, and how can you retain the green in salads, guacamole and pesto; fat and the heart; the physiology of taste.

McGee, Harold. *On Food and Cooking*. Collier, 1988. The modern popular classic on the science involved in cooking. If you want just one book on food science, this is it! 1988 is the one I have, but there's a newer edition.

Muller, Eric. *While You're Waiting for the Food to Come*, Orchard Books, 1999. A great book of simple experiments, tricks and activities that can be done in a restaurant, at home, or wherever food is available. You may get interesting reactions from other diners and from restaurant employees if you try some of the activities in a restaurant -- I speak from personal experience, having been present on several occasions with Eric (my colleague at the Exploratorium) and others in restaurants where we were doing some of the items! Lots of fun, and very educational.

Ontario Science Centre Staff. *Foodworks: Over 100 Science Activities and Fascinating Facts That Explore the Magic of Food*. Addison-Wesley, 1987. The title is self-explanatory.

Parsons, Russ. ***How to Read a French Fry***. Houghton Mifflin, 2003. Lots of interesting information about food science, some of it in the introductory sections to each paragraph, and some embedded in the many recipes that accompany each chapter. The author is a well-known food journalist for the Los Angeles Times, and the following excerpt is from the back-cover paragraph by Ruth Reichl, editor-in-chief of *Gourmet* magazine: "If you want to know why onions make you cry, are terrified by hollandaise, or curious to know why good cooks add old oil to new, this is the book for you. The recipes not only tell you the what, but also the why. I learned a lot."

Rathjen, Don. "The Sweet Taste of Science." ***Exploratorium Quarterly***, Summer, 1989 (the **Ice** issue), pp. 16-20. The Exploratorium 3601 Lyon St., San Francisco, CA, 94123. Some physics and chemistry of ice cream, including the procedure from a high school chemistry lab in which students make individual portions of ice cream.

Science Department, Foothill High School, Pleasanton, CA. "Eating Your Way Through Science." ***Exploratorium Quarterly*** (subsequently ***Exploring***), Winter, 1990 (the **Food** issue), pp. 25-29. The Exploratorium, 3601 Lyon St., San Francisco, CA, 94123. Classroom activities involving food: dissecting, cooking, and eating a squid; making cupcakes with Vaseline and soap substituted for shortening and egg; making rock candy sugar crystals. Several other articles and features consider topics such as the calories in a Milky Way candy bar, what happens to a cheeseburger after you swallow, and the science in your salad.

Sass, Lorna. ***Recipes from an Ecological Kitchen***. William Morrow, 1992. A cookbook whose aim is recipes good for both you and the planet.

Schwabe, Calvin W. ***Unmentionable Cuisine***, University of Virginia Press, 1979. Recipes for lots of food that we usually don't eat. James Beard notes that "...I can recall no other book that has covered the subject of strange foods with quite his flair and authority," and M.F.K. Fisher adds that "...his peculiar book about the unmentionables, the taboos, the conditioned prejudices we all accept, is an important one."

Seelig, Tina. ***The Epicurean Laboratory***. W.H. Freeman, 1991. The science of cooking explored through recipes. The book is divided into five major sections; proteins, carbohydrates, solutions, microbes, and acids and bases. Within these sections are 22 recipes, each associated with a sub-topic within the main section. Examples: Thai barbecue sauce for starch under carbohydrates; coffee soufflé for coffee under solutions.

Seelig, Tina. ***Incredible Edible Science***. W.H. Freeman, 1994. Food science activities for younger kids, but adaptable to any age. By the author of ***The Epicurean Laboratory***.

Sibley, Lynn K. "Popcorn," and "Experimenter's Notebook: Effects of Popcorn Moisture." ***ChemMatters***, October 1984, pp. 10-13. This is an interesting, unintimidating quarterly magazine published by the American Chemical Society for high school chemistry students. A great magazine at a bargain price. Back issues are on a CD available from ACS.

Tames, Richard. ***Food: Feasts, Cooks, and Kitchens***. Timelines Series, Franklin Watts, 1994. Interesting information and background about food in different cultures (Africa, India, etc.) and time periods (Dark Ages, Renaissance, etc.), about different types of food (salt, spice, etc.), and about aspects of food in our lives (shopping, starvation, etc.). Profusely illustrated. Text interesting and informative, but not deep or complex; in its own way, perhaps somewhat comparable to *USA Today*.

Tannahill, Reay. ***Food in History***. Three Rivers Press, 1988. Title is self-explanatory. A comprehensive, yet very readable and interesting look at food in history. Some of the morsels of information are fascinating.

Tannenbaum, Ginger. ***Lessons in Chocolate***. Flinn Scientific, catalog # AP8719. Background information and student activities exploring science and technology related to chocolate. An outstanding resource.

Taylor, Ronald L., and Carter, Barbara J. ***Entertaining with Insects, Or: The Original Guide to Insect Cookery***, Salutek Publishing Co., 5375 Crescent Dr., Yorba Linda, CA, 92687, 1992. Title is self-explanatory.

Zubrowski, Bernie. ***Messing Around With Baking Chemistry***. Little, Brown and Company, 1981. A Children's Museum Activity Book. Simple experiments for young kids (or anyone!) that explore the science involved in baking.