**Recipe perception dissection: (end of chapter)**

For the purpose of this assignment, students will select a familiar recipe. Ideally, these recipes will involve some sort of change in temperature or cooking. Instructors may also choose to encourage students to select an unfamiliar recipe depending on the resources available to students in the class.

Instructors: be sure to set specific guidelines for the deliverables of this assignment. For example, submissions in the format of an essay, story board, diagram, or outline are good options.

Instructors will explain the following steps to the students:

* Gather the ingredients to prepare your dish. This could be something as straightforward as a grilled cheese sandwich or as complicated as *boeuf bourguignon*. Make a list of the ingredients
  + Olfactory test 1: smell each ingredient. Can you identify the chemical compounds that make up these ingredients by smell? Why or why not?
  + Taste test 1: sample each ingredient for your dish on their own. Please do not sample ingredients that are unsafe to consume raw. Next to each ingredient, write down the flavor primaries (sweet, salty, sour, bitter, umami) that you detect.
    - Be sure to identify any herbs and spices as well.
    - Optional: prompt students to identify the chemical in the food that contributes to that primary (e.g. vinegar / acetic acid, lactose)
* Prepare the meal – follow the recipe (whether from memory or from instructions) to combine the ingredients and cook the food.
  + Olfactory test 2: How has the odor of the dish changed with the combination and preparation of the ingredients? Why does temperature alter food odors?
  + Taste test 2: Take a bite of the prepared dish. What are the dominant flavors? Can you identify the individual ingredients or has the preparation altered them?

Reflection prompts for students: How might principles of top-down processing, such as the appearance of the food via plating and presentation, impact your perception of the flavor of the dish? Identify and describe three top-down influences.