Physical Analogy for a Function

In class we talked about how functions are a means of *abstraction*, of hiding details. The user of the function only cares what the function does and not how it does it. Programmers can read the declaration of a function and know how to call it. This concept has real-world parallels. Consider a restaurant where the kitchen is a function. The menu is like a function declaration. It has a list of all the items that a diner can order from the kitchen (the function names) and the ways that they can customize those dishes (parameters). When the diner tell the waitstaff that they would like their fajitas to have chicken rather than steak, they are calling a function with arguments. Later, the sizzling fajitas come from the kitchen to their table (the return value). As a customer, neither do they see the kitchen nor do they care how the food is prepared. All they care about is that it tastes good!