

## SECTION 8: TONGUE MAP

### LAB

### INTRODUCTION

If you look at your tongue in the mirror, you will see a lot of small pink bumps. Each of these bumps contains about 20 taste receptors, or taste buds. Your tongue contains receptors for four kinds of tastes: bitter, salty, sour, and sweet. All other kinds of tastes are some combination of the four. For a long time, scientists thought that there were four kinds of receptors, one for each of the four kinds of tastes. They also thought that certain areas of the tongue only contained one type of taste receptor. Scientists are still not completely sure how taste buds operate. However, some think that a single taste receptor may be able to respond to more than one taste. They think that the receptor might send information to the brain in more than one way, causing more than one kind of sensation.

### ASSESSMENT ANCHORS ADDRESSED

- S4.A.2.1** Apply skills necessary to conduct an experiment or design a solution to solve a problem.
- S4.C.1.1** Describe observable physical properties of matter.
- S4.A.3.3** Identify and make observations about patterns that regularly occur and reoccur in nature.

### PURPOSE

In this activity, you will experiment with the four tastes and discover where those taste buds are located on your tongue.

### MATERIALS

Blindfold	Instant coffee
Cups	Journal page for Activity 8
Lemon juice	Mirror*
Paper*	Pencil*
Salt	Sugar
Tape	Straws
Water*	

*Teacher provides items marked with \**