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# Wintergreen Lights

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> Science Grades 9–12



### Introduction

Many times students don't realize the chemical reactions that occur with foods that they eat. In this lesson the students will participate in an experiment that will provide them an opportunity to observe the light that is produced from chewing candy in the dark.

## Learning Objectives

(<u>CCSS.ELA-LITERACY.RH.11-12.1</u>) Cite specific textual evidence to support analysis of primary and secondary sources, connecting insights gained from specific details to an understanding f the text as a whole.

#### Materials Needed

- · Wintergreen Lifesavers
- · Hand-held or other mirrors
- · Other hard candy
- · Mentos (optional)
- · Bottle of Coke (optional)
- · Mentos and Coke video
- · Student Science Journals

#### Procedure

- Start the lesson by asking students what they think happens when they eat food and chemicals mix together in the body.
- 2. Grab the students' attention by either showing the Mentos and Coke video or actually performing the Mentos and Coke experiment during class (best done outside).
- 3. After this experiment, discuss with the students the important job food scientists and experts have when they are researching the dangers of various food items.
- 4. Take a moment to share with the students that they will be testing to see the reaction that occurs when they eat certain hard candy in the dark. You may inform them that one of the candies will produce light or let them find out on their own.

Continued on page 2



#### **Lesson Plan**

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Continued from page 1

- 5. Provide the students with at least three hard candy choices with one being the Wintergreen Lifesavers.
- 6. Prepare the room so that it is dark and make sure that the students have access to either hand held mirrors or other small mirrors to see the reaction as they chew.
- 7. Have the students test each candy and note their observations.
- 8. After the experiment, explain the process of triboluminescence to the students and explain how this can occur with other items.

### Evaluation

You should use observation and journal notes to determine how successful students were with the experience and their analysis of it. You should look for evidence that the students notice the light produced only from the Wintergreen Lifesaver candy and accurate observation notes for the other candies.