

Edible Asteroids Part II

Objectives

- Students will create their own edible asteroid
- Students will review gained knowledge from the Apophis activities
- Students will discuss healthy and unhealthy snacks

Suggested Grade Level

4th-8th

Subject Area

Science

Timeline

One class period

Standards

Science as Inquiry

- Abilities necessary to do scientific inquiry
- Understanding about scientific inquiry

Background

The science behind this activity is associated with Edible Asteroids Part I. In Part I, students received an asteroid sample and analyzed its physical characteristics. In this activity, students will create their own asteroid, and then analyze its physical characteristics.

This lesson, like Part I, is primarily for honing the students' observation skills in the scientific process. This skill, above all others, should be the major focus of these lessons.

Materials

Hot plate, sauce pan for dipping apples, apples, Popsicle sticks, caramel, wax paper, toppings for the asteroid such as: peanuts, Oreo cookies, Nerds candy, graham crackers, crushed peanut M&M's or whole plain M&M's, etc.

Lesson

1. Review with students the topics of asteroids and Apophis.
2. Introduce the lesson. Today, they will be making their own edible asteroids, and then analyze its physical characteristics.
3. Start by melting the caramel in the pan.
4. Give each student a sheet of wax paper approximately one square foot.
5. Give each student an asteroid (apple) and Popsicle stick.

6. Have the students place the Popsicle stick into the apple where the stem is on the apple.
7. One by one, have each student dip their asteroid (apple) into the melted caramel.
8. After the caramel has stopped dripping from the apple, have students roll their asteroid in a topping, completely covering the asteroid.
9. Place the asteroid on the wax paper to cool.
10. While the asteroid is cooling, have students complete the worksheet. When students reach the part of the worksheet with the table, they may have to bite into their apple to analyze the interior.
11. Have students eat their asteroid.
12. While the students are eating their asteroids, discuss their observations of the asteroids.

Extensions

As an alternative to apples, you can use scoops of ice cream. Put the Popsicle stick in the scoop of ice cream and then freeze the ice cream. Make sure the ice cream is **extremely** frozen before adding the toppings.

Evaluation/Assessment

Grade the Asteroid Analysis worksheet. Did the student adequately fill in each part of the worksheet? Did the student take the time to properly draw and analyze each element of the sample?

Resources

National Science Standards: <http://www.nap.edu/readingroom/books/nses/>

Asteroid Analysis Worksheet

Name _____

Date _____

In the work space below, draw and label your asteroid sample. Make sure you use correct colors when drawing your sample.



1. Overall physical description of asteroid.

2. How many different elements does your asteroid have? _____ Use the chart below to describe each element.

Element	Drawing of Element	Physical Characteristics of Element	Estimated % Composition of Asteroid
#1			
#2			
#3			
#4			
#5			
#6			
#7			
#8			