Using Fractions to Represent M&M Colors

Lesson Plan

Cube Fellow: Stuart Traxel **Teacher Mentor: Tara Barnett**

Goal: Introduce the students to the concept of fractions and a tangible application.

Grade and Course: 9th grade Pre-Algebra

KY Standards: MA-HS-1.4.1

Objectives: The student will be able to:

1) Understand one application for the use of fractions.
    a) How fractions can be used to comprise a whole.
2) Relate fractions to one another.
3) Define the numerator and the denominator.

Resources/materials needed: M&Ms and the worksheet below

Description of Plan:

Introduce fractions if this has not already been done. The accompanying excel spreadsheet's pie chart was used to visually show how varying amounts of the M&M colors are distributed. Show how changing both the denominator (total amount of M&Ms) and the numerator (amount of M&Ms in the particular color) changes that color's area in the pie chart.

A point of emphasis in the lesson is getting the students to try to understand how fractions relate to one another. If a student has twice as many M&Ms in one color as another, there will be a factor of 2 between the fractions representing these colors. Showing in the Excel

pie chart how one color's area is twice as big as another's is intended to give the students a visual aid.

Lesson Source: The first half (1/2) of the worksheet is from http://score.kings.k12.ca.us/lessons/mandm/mmws3.html

Instructional Mode: Lecture and application using worksheet

Date Given: 10-31-2007 **Estimated Time**: 1 class period (45 minutes)

Date Submitted to Algebra^{3}: 10-31-2007

Name: _____ Date: _____

"M&M's"® Candies Worksheet 3

1) Make a bar graph for the colors of "M&M's"® Candies in your bag. Shade in a block for each M&M you have of that color. If you just have one red M&M, then shade in one block. For the "total", add up all the M&Ms you have and shade in that many blocks.

2) **Number of:**

Red =	Orange =	Yellow =	Green =	Blue =	Brown =

Total number of "M&M's"® Candies = _____

3) **Using the information above, convert each color into a fraction.**

Red =	Orange =	Yellow =
Green =	Blue =	Brown =

4) **Look at the fraction you wrote for your red M&Ms.**

What is the numerator in this number? _____

What is the denominator? _____

5) **Eat one M&M.**

How many M&Ms do you have remaining of the color you just ate? _____

How many total M&Ms do you have remaining? _____

Write this as a fraction _____

6) **Repeat number 5 until you don't have any M&Ms left. After you eat each M&M fill in a row in the table below.**

color eaten	M&Ms remaining of this color	Total M&Ms remaining	Fraction (color/total)

	Red	Orange	Yellow	Green	Blue	Brown	Total
M&Ms	1	1	1	1	1	1	6
Fraction	1/6	1/6	1/6	1/6	1/6	1/6	1