



Title:	Graphing M & M's
Grade(s):	4 th and 5 th Grade
Subject(s):	Math
Authors:	Allen, Cook, and Williams
Overview:	This lesson can be implemented during a study of different types of graphs that are used to display and organize data. Students collect and display data in a bar graph.
Content Standards:	MA2003(4) 15. Represent categorical data using tables and graphs, including bar graphs, line graphs, and line plots. TC2009(3-5) 5. Practice safe use of technology systems and applications. TC2009(3-5) 6. Describe social and ethical behaviors related to technology use. TC2009(3-5) 9. Use technology tools to organize, interpret, and display data.
Local/National Standards:	1. Problem Solving-Application 2. Communication-Oral and Written 3. Reasoning 4. Number and Number Relations 5. Computation and Estimation 6. Statistics
Primary Learning Objectives:	1. Students will interpret information on a bar graph. 2. Students will collect and organize data using tally marks. 3. Students will create bar graphs to show how many of each color of M&M's are found in a bag.
Approximate Duration of Lesson:	90 - 120 Minutes
Materials and Equipment:	One small bag of M&M's for each student, crayons, student handouts: tally chart, graphing sheet, and graph questions
Technology Resources Needed:	Computer with Internet access, spreadsheet software such as MS <i>Excel</i> , printer, Promethean/Smart Board
Background/Preparation:	Students should already be familiar with gathering data using tally marks and with interpreting bar graphs. Teacher should model the process of collecting data and creating bar graphs during whole group instruction.
Procedures/Activities:	1. Using the student handouts (tally chart, graphing sheet, and graph questions), students will complete each handout according to their data (number of M&M's by color in their bag). 2. Using the RAFT model (below), students may create a Prezi, write a blog, or create an Excel graph that displays or describes their data.



- Attachments:** [M&M tally chart and blank graph](#)
M&M Graph Excel example
M&M graph questions.doc
- Assessment Strategies:** Students will be assessed by checking their M&M graphs and answer sheets (see attached) for accuracy. Teacher will check and discuss the answers to the questions that were completed during class. Also, a rubric is provided for the M&M graph.
- Extension:** Many additional follow-up graphing activities for students may be found at <http://www.teach-nology.com/themes/math/graphing/> and <http://www.shambles.net/pages/staff/graphing>.
- Remediation:** [Presentation of Material](#)
[Time Demands](#)
[Attention](#)
[Assisting the Reluctant Starter](#)

Rubric

0	1	2	3	4
This score is representative of a student not even attempting to do this activity.	The student attempted the activity. However, they failed to demonstrate an understanding of it.	The student has included any 2 of the 5 components needed to score a score of 4.	The student has included at least 3 of the five requirements for a score of 4.	To receive a score of 4 the student must have placed a title on the graph, labeled all parts, all areas must be to scale , the graph must be neat and colored , and a key must be present.

Role	Audience	Format
Writer Artist Presenter	Self Peer Group Judge	Prezi Excel Blog