



Percents Lesson Plan

SMARTBoard Interactive Activities on Percents

Math

Percentages

In this lesson, students work with percentages in a variety of formats to create a deeper understanding of how percentages are used in everyday life.

Content Standards

- Students will be able to perform arithmetic operations involving fractions and percents
- Students will be able to convert fractions to percents

Learning Objectives

- Apply concepts of ratios, proportions, percents, and number theory (e.g. primes, factors, and multiples) in practical and other mathematical situations
- Create, solve, and justify the solution for multi-step, real-life problems including those with ratio and proportion

Lesson Starter

Discuss what students already know about money and a dollar bill asking them how many pennies make up one dollar. Discuss how many nickels, dimes and finally quarters make up one dollar. Point out that each group still represents only one dollar.

- On the SMARTBoard, draw a box, telling the students the box represents one dollar, and then fill in 25% to represent 1 quarter, 50% to represent 2 quarters, 75% to represent 3 quarters, then the whole thing to represent one dollar.

Prior Knowledge

Review with the students the concepts of fractions, $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, covered in the previous lesson. Connect the introduction on money to the fractions. Tell them that they are now going to work on a different method for representing those fractions.

Present New Content

- The teacher uses SMART Notebook software lesson on Percents and the SMARTBoard to introduce the idea of percents.
 - Show Percents introductory video segment 3 from unitedstreaming's Standard Deviants. "Zany World of Basic Math, The, Module 10: Ratios and Percents." Video (linked from the Notebook presentation).



- Have the students take turns coming up to the SMARTBoard to practice the interactive exercises on percents.

Independent Learning Experience

- Divide the students up into pairs. Explain to the students they are going to be sorting and determining the percentage of each color in a bag of M&M's.
 - After students sort each bag according to color, they should graph each color and calculate the total amount.
 - Students will convert the number in each group to a fraction of the whole bag.
 - Students will compute the percent of each color of M&M's in their bag.
- Using the SMARTBoard, have each pair come up and present their findings and explain their calculations.

Feedback

Teacher circulates around the room providing feedback and guidance to the pairs.

Assessment

Score each pairs graphs and percent calculations and provide a final score and feedback to both students.

Transfer

Ask the students how else they see percentages in everyday life? Sales tax on items they purchase? Have the students think about what percent of their allowance or money from work they spend on fun versus save.

Citations

Standard Deviants. "Zany World of Basic Math, The, Module 10: Ratios and Percents."
unitedstreaming: <http://www.unitedstreaming.com/>