1. **GRADE LEVEL: Grade 7**

Subject Area: Mathematics

Quarter 1 – Week   
Duration: 45 minutes

1. **LEARNING OBJECTIVES**

Learners are expected to:

- Students will be able to calculate the amount of increase or decrease given a percentage - Students will be able to find the new amount after a percentage increase or decrease - Students will be able to calculate the percentage increase or decrease between two numbers.

1. **CONTENT**

* Title: Percentages in Real Life: Ups and Downs
* Learning Competency: solve problems involving percentage increase and percentage decrease.
* Particular Focus: Mastering the calculations for finding a new value after a percentage change and for finding the percentage change itself.

1. **LEARNING RESOURCES**

* Teacher's Guide
* Calculators
* Real-world examples (e.g., flyers with sales, news articles about stock changes)
* Worksheets
* PPT: 'Percentage Change'

1. PROCEDURE

Introduction:

Start with a real-life scenario: 'A video game that costs $50 is on sale for 10% off. How much do you save?' Connect this to prior knowledge of finding a simple percentage of a number. Then ask, 'So what is the new price?' to introduce the next step.

Presentation:  
['The teacher explicitly demonstrates the two main methods for finding the new amount: 1) Find the percentage amount and then add/subtract it from the original. 2) Convert the percentage change to a multiplier (e.g., 20% increase = multiply by 1.20', ' 15% decrease = multiply by 0.85). The teacher then models how to find the percentage change: (Difference / Original Amount) \* 100.']  
Practice:  
["Students work in pairs on a 'Shopping Spree' worksheet. They are given a budget and a list of items with original prices. They must calculate the new prices based on various percentage discounts and increases (e.g., 'T-shirt: $20, now 25% off'", " 'Collectable Toy: $30, value increased by 10%'). They must also calculate the overall percentage change in the value of their items."]

Integration:  
This lesson is directly applicable to personal finance (discounts, taxes, investments), economics (inflation, GDP growth), and science (percent error in experiments). Discussing real-world examples helps students see the immediate relevance of this skill. Values: Financial literacy and critical thinking about advertised sales.

Assessment:  
['1. What is the new price of a $80 jacket after a 20% discount? ($64)', ' 2. A population of 200 increases by 15%. What is the new population? (230)', ' 3. A price drops from $50 to $40. What is the percentage decrease? (20%)', ' 4. To calculate a 5% increase, you can multiply the original amount by what number? (1.05)']

Enrichment:  
["Remediation: Focus on the 'find the amount and add/subtract' method first, as it's more intuitive. Use simple percentages like 10%, 25%, and 50%. Provide a calculator and a formula sheet.", " Enhancement: Have students research a real stock's performance over a week and calculate the daily percentage changes. Have them create a line graph to show the trend."]  
Asignment:  
Find a news article or advertisement that mentions a percentage increase or decrease. Write down the original and new values (or the percentage change) and verify the calculation. Be ready to explain the context.

1. EVALUATION TOOLS

The worksheet will be graded for accuracy. An exit ticket will ask students to solve one of each type of problem (find new amount, find % change). Observe pairs during the 'Shopping Spree' activity to identify and address misconceptions in real-time.

1. REMARKS

["Calculators are essential. The 'multiplier' method is more efficient but can be less intuitive for some students", " introduce it as a 'shortcut' after they understand the first method. Use real-world, relatable examples to maintain engagement."]

1. REFLECTION