Unit 3b Understand and Use Percent

Content Area: **Math**
Course(s): **Math 6**
Time Period: **Marking Period 3**
Length: **WK 6-9 Envision Mathematics Topic 6**
Status: **Published**

Essential Questions

- What is the meaning of percent? How can percent be estimated and found?

Big Ideas

- Use hundredths grids, number lines and equivalent fractions to represent percent.
- Apply understanding of equivalent fractions to relate fractions, decimals and percents.
- Estimate percents using benchmark fractions.
- Use double number lines and equations to find the percent the whole or the part.
- Understand congruence and similarity using physical models, transparencies, or geometry software.

Cross Curricular Integration

Integration area: Science

MS-LS2 Ecosystems: Interactions, Energy and Dynamics

MS-ESS3 Earth and Human Activity

MS-ETS1-1 Define the criteria and constraints of a design problem with sufficient precision to ensure a successful solution, taking into account relevant scientific principles and potential impacts on people and the natural environment that may limit possible solutions.

MS-ETS1-2 Evaluate competing design solutions using a systematic process to determine how well they meet the criteria and constraints of the problem.

Activity:

Students explore the impact humans have on the environment as they research and identify ways in which engineers can help prevent the extinction of animal species.

Diversity Integration

Disabilities

Objective: Students will be able to successfully plan a trip to one of three destinations using a budget.

Activity:

- Teacher will review sales tax, tip, and using percents to solve problems.

- Students will pick one of three destinations in groups and organize and plan the trip. They will need to buy all items needed either on sale and include sales tax for themselves and a person with a disability.

- The students will need to research about the disability and find the needs of the person to travel to this destination.

- They will need to make sure they have money to eat and pay tip on the meals.

CSDT Technology Connection

• 8.1.8.DA.1: Organize and transform data collected using computational tools to make it usable for a specific purpose.

Enduring Understandings

Ratios and Proportional Relationships

6.RP.1 [M] Understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities. For example, “The ratio of wings to beaks in the bird house at the zoo was 2:1, because for every 2 wings there was 1 beak.” “For every vote candidate A received, candidate C received nearly three votes.”

6.RP.3c [M] Find a percent of a quantity as a rate per 100 (e.g., 30% of a quantity means 30/100 times the quantity); solve problems involving finding the whole, given a part and the percent.

Mathematical Practices Focus

1. Make sense of problems and persevere in solving them. Lesson 4,5,6, and page 385

2. Reason abstractly and quantitatively. Lesson 1,2,3,4,6, and page 385

3. Construct viable arguments and critique the reasoning of others. Lesson 1,2,3, and page 385

4. Model with mathematics. Lesson 1,3,5,6, and page 385

5. Use appropriate tools strategically. Lesson 5, and page 385

6. Attend to precision. Lesson 5, 6, and page 385

7. Look for and make use of structure. Lesson 1,2,3,4,6, and page 385

8. Look for and express regularity in repeated reasoning. Lesson 2, 5, and page 385