**SUBJECT**: Mathematics TITLE: 17.1/17.2 Explore and Find Perimeter

**GRADE LEVEL**: 3

**NUMBER OF STUDENTS**: 26

**LESSON DURATION**: 35 minutes

**STANDARDS:**

* 3.MD.8 Solve real world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters.

**OBJECTIVES**:

* All students will be able to:
  + estimate the distance around a figure.
  + measure the distance around a figure.
  + calculate the distance around a figure.

**MATERIALS/RESOURCES**:

* 17.1/17.2 Explore and Find Perimeter Flipchart
* Promethean Board with ActivInspire Software
* Laptop
* Pencil
* Paper
* Homework 17.2 worksheet (completed in-class)
* Practice 17.1 and Practice 17.2 in math workbook (completed for homework)
* Problem Solving 17.2 Worksheet (challenge sheet)

**LESSON INSTRUCTIONAL PROCEDURES**

1. Introduction (motivation/warm-up/lead-in) (6 min)
   * Have students sit on the red carpet in front of the Promethean Board.
   * Have students look over coin clue and come up with their own answers. Have 2-3 students share their answers.
   * Engage students by asking them what they know about perimeter.

- Students have previously been introduced to the term and should have a vague idea.

- What do you know about perimeter?

* + Explain to the students that they will be learning about figures and their perimeter.

1. Development: Instruction and Activities (45 min)
   * VOCABULARY (1 min): Go over the vocabulary on the third slide of the flipchart. Read the definition of perimeter and discuss what it refers to using the provided picture.
   * I DO (10 min): Discuss how to find the perimeter of polygons based on what you know about their shape and size. Make sure students are aware they must label their perimeter with a P to indicate they are giving the perimeter as their answer (slide four). Show students how to find the perimeter when the polygon is drawn on grid paper (slide five).
   * WE DO (5 min): Work with the student to find the perimeter of polygons based on what they know about their shape and size (slide six). Show the students that it is best to determine the shape of the polygon and then how many sides there are and which might be equal. This will help make finding the perimeter simpler. Work with students to practice finding the perimeter of a polygon when the measurements of each side are given (slide seven).
   * YOU DO (10 min): Have students take turns completing the questions on slides eight and nine. The students will find the distance around a figure using their knowledge of polygons, plane figures, and the given information.
   * PROBLEM SOLVING (3 min): Students will use their problem solving skills to determine the perimeter around a picture using 2 inch toothpicks and finding the perimeter of the picture in inches.
   * Have students return to their desks quietly.
   * Explain to students what they will be doing at their desks.
     1. The students will be completing Homework 17.2 worksheet.
     2. Provide students with the challenge worksheet (Problem Solving 17.2) when they finish the worksheets (on backside of Homework 17.2 worksheet).
2. Differentiated Instruction
   * ELL Students

- Provide students with translations for the triangles and their descriptions.

* + Special Education – mild-moderate memory and processing learning disability

- Have all instructions clearly written on board.

- Provide further explanation for questions that may not be fully understood.

- Walk around the classroom monitoring student engagement.

- Read questions aloud.

* + Talented and Gifted

- Challenge students with Problem Solving 17.2 worksheet.

- Walk around the room asking more thought provoking questions about the triangles.

1. Closure
   * Go over the worksheet with the students.
   * Remind students that they will be completing page 114 and 115 in their math workbooks for homework.

DIFFERENTIATED ASSESSMENT for ELL, LD, Gifted, and General Education

* Informal: While the students work, walk around the room making sure students are on task and are actively engaged in learning. Look for correct answers and anything that may need further explanation.
* Formal: Students will complete the Homework 17.2 worksheet and page 114 and 115 in their math workbooks.

REFLECTION/NEXT STEPS

REFERENCES AND RESOURCES

* Houghton Mifflin Math, Teacher’s Edition, Grade 3, Volume 2