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Title / concept or skill Solids and Shapes – Angles
Grade level: 3rd Grade
Subject area: Mathematics

DESIRED RESULTS

TEKS and SEs
TEKS 3.8 Identify, classify, and describe two and three dimensional geometric figures by their attributes. Compare two dimensional figures, three dimensional figures, or both by their attributes using formal geometry vocabulary.

Vocabulary Focus
ray, angle, right angle, perpendicular, acute angle, obtuse angle

Learning Objectives
Students identify and classify angles in relation to right angles.

Materials Needed
2 pipe cleaners
2 strips of paper
1 paper fastener

ASSESSMENTS
Performance Tasks
Exploring angles with pipe cleaners.

Other Evidence
Informal assessment- Teacher observation: I will be watching the students while they are working on their task and sharing with their group members. I will be looking that they are (1) Taking turns & cooperating with each other (2) Use Positive interactions with each other (3) Using mathematical knowledge to complete the assignment.

LEARNING PLAN

Engage

We have learned about points, lines, and line segments. Today, we will learn about angles. Read Hamster Champs by Stuart Murphy.

Explore

Have students join 2 pipe cleaners at the ends, or join 2 strips of paper at the ends with paper fasteners, to find different ways to make two line segments meet. Have them draw their

examples on paper and record how the figures are different or alike. Compare results. Have students post their drawings. Share ideas about ways to make two lines meet.

Explain: Teacher lead discussion

A ray is a part of a line with one endpoint. When two rays meet at an endpoint, they form an angle. An angle with a square corner is called a right angle. An angle that is less than a right angle is an acute angle. An angle that is greater than a right angle is an obtuse angle. Discuss and have students draw angles inside of their math journals.

Elaborations

On the board, draw an equilateral triangle, a rectangle, a trapezoid, and a regular hexagon. Label them A – D. As a group, locate and name the angles (right, acute, or obtuse) in each shape.

Evaluation

Students will apply their knowledge of lines and line segments with the group and independent work they have completed in class.

Student will be graded on individual and group participation during architecture final project. How was student able to implement concepts learned from concept lessons into his/her final project.

Time guidelines

Completion of line and line segment lesson will take about 45 mintues.