APL (Active Playful Learning) Learning Experience Title: Polygons and Perimeter

<table>
<tr><td>Grade Level or Course</td><td colspan="3">Third Grade</td></tr>
<tr><td>Quarter # Unit #:
Unit Title</td><td colspan="3">Second Quarter
Unit 4: Geometry</td></tr>
<tr><td rowspan="2">Featured APL Practice:</td><td>Small & Paired Groups </td><td>Student Contributions </td><td>Hands-on & Minds-on </td></tr>
<tr><td>Voice & Choice </td><td>Meaningful Connections </td><td>Enthusiasm & Positivity </td></tr>
<tr><td>APL Summary
Briefly describe connection between lesson and APL practice</td><td colspan="3">Each small group creates a polygon on the floor tiles with painters tape. They identify their own polygon's perimeter and specific polygon name. Groups then swap to solve another group's polygon perimeter and area and identify the name of the polygon. By providing students with tasks where they must work together to solve problems, students are developing their communication and collaboration skills. Working in groups will support the development of prosocial behaviors and allow for positive interactions among classmates.</td></tr>
<tr><td>Materials / Resources</td><td colspan="3">Painters tape
Recording sheet
Pencil
Scissors</td></tr>
<tr><td>Math Standards</td><td colspan="3">Math SOLs:
3.MG.2 The student will use multiple representations to estimate and solve problems, including those in context, involving area and perimeter (in both U.S. Customary and metric units).

b) Solve problems, including those in context, involving perimeter.</td></tr>
<tr><td>Learning Objective(s)</td><td colspan="3">I can…
I can use wall or floor tiles to create a polygon
I can determine the perimeter of a polygon</td></tr>
<tr><td>Learning Experience Sequence
Follows Math Workshop Sequence
Teacher-facing language
Describe elements of the learning experience here, within the model of Math Workshop
Student and Teacher Actions: What should students be doing? What should teachers be doing?</td><td colspan="3">Structure of Learning Experience:
 Consider reviewing the attributes of a polygon and the process of finding the perimeter of a polygon. This can be done with a number sense routine, by playing two truths and a lie (I am a polygon: I have a curved side, I only touch at each vertex, All my sides are closed. Which is the lie and how do you know?), or by reviewing a previously used slide.
 Teacher will then explain to the students that they will be tasked with going into the hallway and creating a polygon by using the floor tiles. Use the linked interactive tool to model how to do this or use a document paper and graph paper. Consider clicking “hide totals” and “hide perimeter” before beginning to challenge students’ thinking later on. After building an irregular</td></tr>
</table>

	polygon, ask students how we can determine the perimeter of the example.  Students will then move into hands-on practice skills with groups of 2-4 to begin creating their polygon. These groups can be determined by the teacher and may benefit from having students of mixed-abilities. -Ensure students have painters tape, recording sheet/math notebook, and a pencil -Consider allowing groups 1-2 minutes to brainstorm a shape independently on blank or graph paper and discuss who will use which supplies and how they will work together to complete the task. After every group or pair has had a chance to create their polygon, they will then determine the perimeter of the shape. Groups or pairs will then switch with another group or pair and determine: The name of the new group's polygon (or how many sides if too large to name) The perimeter of the new group's polygon  Groups or pairs will then share and compare their answers ○ Possible answer or question stems: ■ I agree because. . . ■ I disagree because . . . ■ How did you get to that answer . . . ■ What if you tried looking at it this way . . .
	Reflection (Resources):  As an exit ticket, students can look at the polygon that their teacher has created on the floor tiles or choose another group's polygon they weren't partnered with. The students can then sketch the polygon and determine the name and perimeter of that polygon. ● Extension: They can also explain why the shape is or is not a polygon
Scaffolding and Supports ● Differentiation ● Scaffolding ● Remediation ● Extension ● EL Scaffolds (Elem) ● EL Scaffolds (Sec) ● QTEL Strategies (Elem) ● QTEL Strategies (Sec)	*Grade-level teams and specialists collaborate to devise scaffolds and supports based on students' needs.* ● Visual Cards with polygon names ● Provide proximity support to a group who may need additional guidance with the activity ● Increase rigor by giving students a perimeter and having them create a shape with that exact size. ● Ask students to find the area by counting the floor tiles contained inside their shape; this will be more challenging if they've created a diagonal through the floor tile with the painters tape