

## Suggested Weekly Learning Activities for Teachers

<b>Subject Area:</b>	Numeracy 6-8
<b>Big Idea:</b>	Geometry Town Project Review: polygons, parallel and perpendicular lines, angles
<b>Plan/Instructions:</b>	Detailed instructions are included below.
<b>Materials needed:</b>	Scrap paper for draft copy, grid paper for good copy, pencil, eraser, ruler or straight edge. See link in <i>Additional Resources</i> for grid paper and nets for enrichment opportunities.
<b>Source:</b>	Lesson adapted by math leads from the link below.
<b>Additional Resources:</b>	<a href="http://lrt.ednet.ns.ca/PD/BLM/table_of_contents.htm">http://lrt.ednet.ns.ca/PD/BLM/table_of_contents.htm</a> <a href="https://betterlesson.com/lesson/resource/2847806/geometry-town-project-docx">https://betterlesson.com/lesson/resource/2847806/geometry-town-project-docx</a>
<b>Opportunities for Stretch:</b>	<p>Expand your town.</p> <p>Label dimensions of your items then:</p> <ul style="list-style-type: none"><li>➤ Find perimeter and area of sandbox, pool, basketball court, pizza restaurant.</li><li>➤ Calculate volume of water in your pool if it is <math>\frac{3}{4}</math> filled with water.</li><li>➤ Find surface area of your buildings, remember do not include windows and doors.</li><li>➤ Create a 3D model of your town using nets to build structures.</li><li>➤ Investigate formulas for finding area of pentagon, hexagon and trapezoid.</li><li>➤ Calculate the cost of paving your gym parking lot. (Research cost of paving per square foot.)</li><li>➤ If the property tax in your town is \$0.15 per square foot, (ground level) calculate the square footage of each of your buildings and determine how much money will be collected by your town in taxes.</li></ul>

## GEOMETRY TOWN PROJECT

Your mission is to create a town made of polygons and select a name and a theme for that town. For example, the names of the buildings and your streets will be related to your theme. (i.e. math, dogs, cars etc.)

	Requirements: You must have at least:	checklist
1	Two sets of streets that are parallel	
2	Two sets of streets that are perpendicular	
3	One street intersects with another to form an obtuse angle	
4	One street intersects with another to form an acute angle	
5	One street intersects with another to form a right angle	
6	A school in the shape of a hexagon	
6	A bank in the shape of a trapezoid	
7	A triangular Post Office	
8	A grocery store in the shape of a rhombus	
9	A pizza place in the shape of a parallelogram	
10	An irregular polygon park with a square sandbox, rectangular basketball court, and round swimming pool	
11	A rectangular gym surrounded by a pentagon parking lot	
12	Your choice of 5 additional locations (and shapes)	

**\*\*Use scrap paper to design your town before transferring it to graph paper. (You can tape copies of grid paper together to make large mat for your town.) You must use a straight edge. Keep your work neat. Do not forget to label all streets and buildings. (Hint: Slide the shape to reveal their name, if you need a reminder.)**

