**Project #2: Parallel Lines in the City!**

**Design your very own city with Parallel Lines, Transversals & Special Angles!**

**Objectives:**

1. Students will demonstrate their knowledge of parallel lines with a transversal.
2. Students will show when angles are congruent or supplementary given parallel lines and a transversal.

**Materials needed:**

* Pencil
* Colored pencils or markers
* Ruler
* Paper (graph paper, if desired)
* Posterboard

**Overview:**

For this project, you will make a street map for a fictional city (you must name your city). This city will consist of:

1. Six (6) streets that are parallel to each other. Each street needs to be named for reference.
2. Two (2) transversal streets. (i.e., Two streets that intersect all six of the above streets). These need to be named as well. **Do *not* make the transversals parallel to each other!!!**
3. Traffic lights or stop signs at four (4) different intersections.
4. The following buildings, represented in your city:
	1. Post office
	2. Bank
	3. Fire Department
	4. Police Station
	5. Gas Station
	6. School
	7. Restaurant
	8. Grocery Store
	9. Courthouse
	10. Your own house
	11. Library
	12. Park
5. You and three friends on different streets. You are meeting later. Each person must be doing something different, particular to that individual.
6. Note: Each building and street must be labeled and names must be school appropriate.

**Instructions:**

The point of this project is not to place these buildings anywhere, but to demonstrate your understanding of different angles as well as to understand when they are supplementary or congruent. You can still be creative in making your city, but please place the buildings in the following locations.

1. Your house and the school at

**congruent alternate interior angles.**

1. The post office and the bank at

**consecutive interior angles.**

1. The fire department and police station at

**congruent alternate exterior angles.**

1. The library and the park at

 **vertical angles.**

1. The restaurant and courthouse at

***non-congruent* alternate interior angles.**

1. The gas station and grocery store at

 **congruent corresponding angles.**

Remember to be creative. You may be as artistic as you would like in drawing the buildings and roads, but be sure to label each one. Creativity will earn extra points!

**Project Due Date: Friday December 6th at the beginning of class!**

**Rubric for Project: Parallel Lines in the City! (Turn in with Project) Name\_\_\_\_\_\_\_\_\_\_\_\_**

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| --- | --- | --- | --- |
| **Points Possible** | **Category** | **Points Earned** | **Comments** |
| **4** | **Name of City** |  |  |
| **12** | **Name of Each Parallel Street** |  |  |
| **8** | **Name of Two Transversal Streets**  |  |  |
| **8** | **Traffic lights or stop signs at four (4) different intersections** |  |  |
| **8** | **You and 3 Friends doing different things on different streets.** |  |  |
| **5** | **Your house and the school at congruent alternate interior angles.** |  |  |
| **5** | **The post office and the bank at consecutive interior angles.** |  |  |
| **5** | **The fire department and police station at congruent alternate exterior angles.** |  |  |
| **5** | **The library and the park at vertical angles.** |  |  |
| **5** | **The restaurant and courthouse at *non-congruent* alternate interior angles.** |  |  |
| **5** | **The gas station and grocery store at congruent corresponding angles.** |  |  |
| **20** | **Neatness** |  |  |
| **10** | **Creativity** |  |  |
| **Total Points:** **100** |  | **Points Earned:** |  |