

Geometry Town Project Using Geometric Vocab to Design a Map

Aim: To demonstrate your understanding of geometric vocabulary, you will be designing and drawing a town map which uses many geometric key terms.

Your map is to be drawn on an A3 piece of paper. You should do your initially draft in lead pencil, without any colour. All elements should be included on the map, and labelled on the legend. Please have this work checked by a teacher before your start using text and colour for the presentation copy.

Your Town Must include:

A title at the top (the name of your town)

You must have the numbers labelled on your map

You must have the names of the items on your legend

- 1a-b-c. Three streets (lines) that are parallel to each other.
2. A diagonal street (line) that is a transversal to the parallel streets.
3. Add two restaurants that are located in corresponding angles (F angles).
4. Draw two petrol stations that are located in co-interior angles (C angles).
5. Include two shops at alternate angles (Z angles).
6. Draw a path or a bridge that connects two angles that equal to 90° (complementary angles).
7. Draw a bridge or path that connects two angles that equal 180° (supplementary angles).
8. Draw a hexagonal building (or neighbourhood).
9. Draw an octagonal building (or neighbourhood).
10. Draw a decagonal building (or neighbourhood).

Below you will find other items which I would like you to try and include in your town. Some of these terms you will have used last year, some of the terms are included in the geometry vocabulary sheet on my website but we haven't explicitly studied them this year. I am expecting you to attempt to include as many of these terms as you possibly can.

- 11 a-b. Two streets (lines) that are perpendicular to each other.
12. A street that is a ray.
13. A street that is a line segment.
14. Draw a round-about in the midpoint of a line segment.
15. Draw two parks at vertical angles to each other.
16. Draw a hospital in the shape of a parallelogram and put it in the interior of a 90° angle.
17. Draw a school in the shape of a trapezium that is located at an obtuse angle.
18. Draw a post office in the shape of a rhombus located at an acute angle.
19. Draw a courthouse in the shape of a pentagon located at a right angle.
- 20a-b-c. Draw three swimming pools that are triangles: 1 scalene, 1 isosceles and 1 equilateral.

Remember you can add more road and buildings than those listed above. On the back of your map, you need to ensure your legend clearly labeled on the back of your map.

This will be due next Thursday, you will receive today (Friday) and Monday to work on it in class. Whatever is not completed will be homework. This is an assessable task.

When you submit this task to me, you must include the following self assessment.

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	Truly Awesome	Exceeds expectations	Meets expectations	Does not meet expectations
Content	I have included all the required and additional points on my map, and there are few if any mistakes.	All of the required 10 points are correctly included on my map, and I have included some of the additional points correctly.	All 10 of the required points are included on my town map, and the vast majority are correct.	I am missing some of the required points on my map.
Vocabulary	I understand all vocabulary used in this design project, and I can provide definitions and examples of them all.	I understand all the required terms and most of the additional terms. I might need to check one or two.	I understand all the required terms and would be able to provide examples for most.	I am not sure of what most of these terms mean.
Design and Care	I have taken extreme care with my presentation. I have used a ruler, lots of colour, and carefully outlined all work	I have used a ruler and pencil for all my work. I have gone over all pencil, and put extra effort into my presentation.	My work is quite neat, I could have taken more care in my work.	My work is quite messy and hard to understand.

How can you prove that the angles inside a triangle equal 180° ?

Where are co-interior angles located, and what do they equal?

How would you assess your final map design, and does it demonstrate your understanding of the work covered in this unit?
