

# GEOMETRY

## “Creating a ‘Solid’ City”

**OBJECTIVE:** To distinguish between various solids, identify parts of solids, and create a net for various solids in the creation of a building.

**DIRECTIONS:** Take a sheet of construction paper or other heavy material and create a building made of one or many solids by creating the net(s). You may choose to create any type of prism or pyramid, cylinder, cone, or a combination of any solids. *The dimensions of your building may not exceed 10” long, 10” wide, nor 10” deep.* Decorate your solid or combination of solids to make it fit the building that you wish. Here are more specifics:

1. Gather the materials that you wish to use such as: construction paper, pencil, ruler, scissors, markers, colored pencils, tape, glue, glue gun, etc...
2. Draw the net(s) for your building on scratch paper first.
3. Cut out your practice net(s) and check to make sure it will fold into the desired solid(s).
4. If your practice net(s) work, then create the net(s) on construction or any other heavy material.
5. Cut out the net carefully.
6. Add details to your net(s) that will soon become a building. Be creative!!! Things that you can think about include: business name, advertising, windows, doors, pictures, etc...
7. Place your first and last name along with the date (month-day-year) on the bottom.
8. Finally, attach your net(s) together to make it into your very own building.

**GRADING:** The finished product will be graded using the rubric shown below. Obviously the more time you put into the building, the better you will do. Take pride in your work!!!

<b>Item</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
<b>Net Creation</b>	Did a tornado hit your building? It’s twisted and I can see my neighbor through it. Hi!!! Wait, it’s not even a net. It’s in pieces!	It’s definitely a net but the faces don’t seem to fit very well. Bet you made some faces trying to squish it together!	The nets flow together well with a little overlap here and there. But it will survive a fierce blow from a hair dryer!	Everything fits together perfectly. No overlap at all. Will you make me a tuxedo next?
<b>Neatness</b>	Wow is that masking tape all around your building. How about using a band-aid instead.	That scotch tape should hold until we move it a few more times. I think I am starting to see a crack!	Looks pretty good. A few glue balls here and there (not a snack hopefully) but it’s put together well.	Is your building a manufactured one? It appears that you blew it up through a pinhole. Did you iron it? Look...no seams or wrinkles!
<b>Creativity/Detail</b>	Let’s play ‘What Is It’. It’s a bank, it’s a church, it’s a school, it’s plain and who likes plain doughnuts anyway?	We have figured out what you have made because it says “Store” on it but windows and doors that slant. Come on, who put the finishing touches on this.	A good amount of detail is shown. It’s definitely not gaudy but maybe not as realistic as it could be.	Wait, this building reminds me of places I have viewed in National Geographic. I think I can see what’s on TV on the third floor.
<b>Complexity (x 2)</b>	Wow, you made a box! Good for you. Did you break a sweat? Maybe you need a Gatorade!	Okay, now that’s a little better as you have made an attempt to make something a little more difficult.	Hey, you that’s some difficult nets that you have made and put together. They fit together well.	Wow, how did you make that? Are you an engineer? You have made an extreme makeover.

Please have your building ready by class time the day it is due. If you will be gone for a school activity, please bring it in before you leave. Thank you and enjoy yourself!!!

The due date for the building is \_\_\_\_\_.