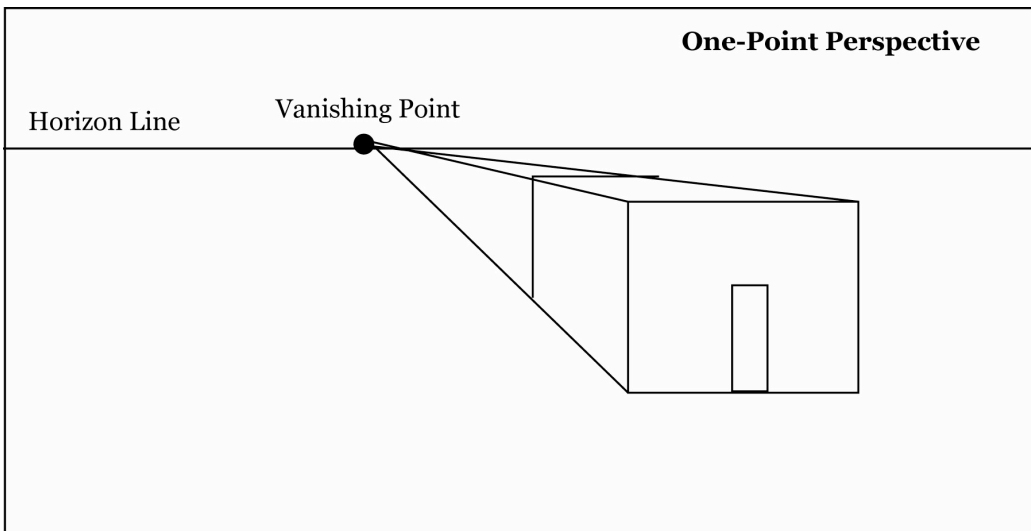


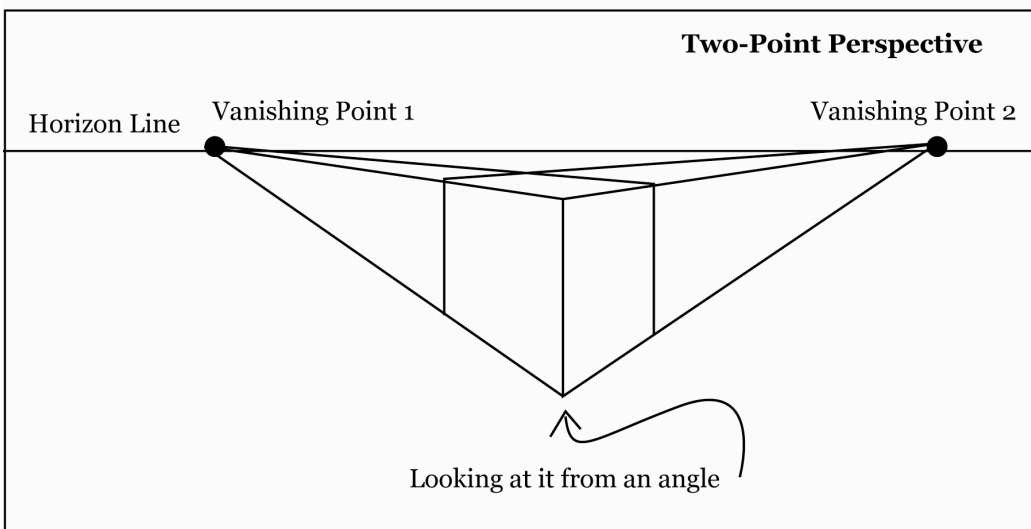
Linear Perspective

Linear Perspective is a technique for representing 3-dimensional space on a 2-dimensional (paper) surface. This method was invented during the Renaissance when artists were trying to draw as realistically as possible. It is a mathematical system to show depth realistically. Linear perspective is based on the way the human eye sees the world. Things that are closer to us appear larger and things that are farther away appear smaller. To create this illusion the artist creates a **vanishing point** on the **horizon line**. Objects are drawn using **orthogonal lines**, which lead to the vanishing point(s).

Things that are seen face on, which means you are looking at the front of them directly, are drawn in **one-point perspective** with a single **vanishing point**.



Things that are seen at an angle, which means you aren't looking at the front of something but at the angle or corner, are drawn in **two-point perspective** using **two vanishing points**.



Linear Perspective Vocabulary Words

Perspective: Perspective is a way of showing where the observer is. The objects themselves don't have perspective, you the observer, do.

One-Point Perspective: One-point perspective occurs when rectangular forms are placed so that their sides are either parallel to the picture plane or perpendicular to it. There is one central vanishing point in one-point perspective.

Two-Point Perspective: Two-point perspective is necessary when rectangular objects are positioned so that their faces are at an angle to the artist's line of sight. There are two vanishing points for an object in two-point perspective. If there are two cubes at different angles to the viewer each cube will have its own vanishing points, but only one horizon line.

Horizon Line: The horizon line is the same as the real horizon (where the earth meets the sky). The horizon line is also considered to be at the artist's eye level. If the horizon line cannot be seen because of obstructions it can be located by drawing a line at the artist's eye level.

Vanishing Point(s): In perspective, the lines of an object extend to and meet at the vanishing point, which is on the horizon line.

Orthogonal Lines: The term used to describe parallel lines which appear to converge in the system of linear (one-point) perspective.

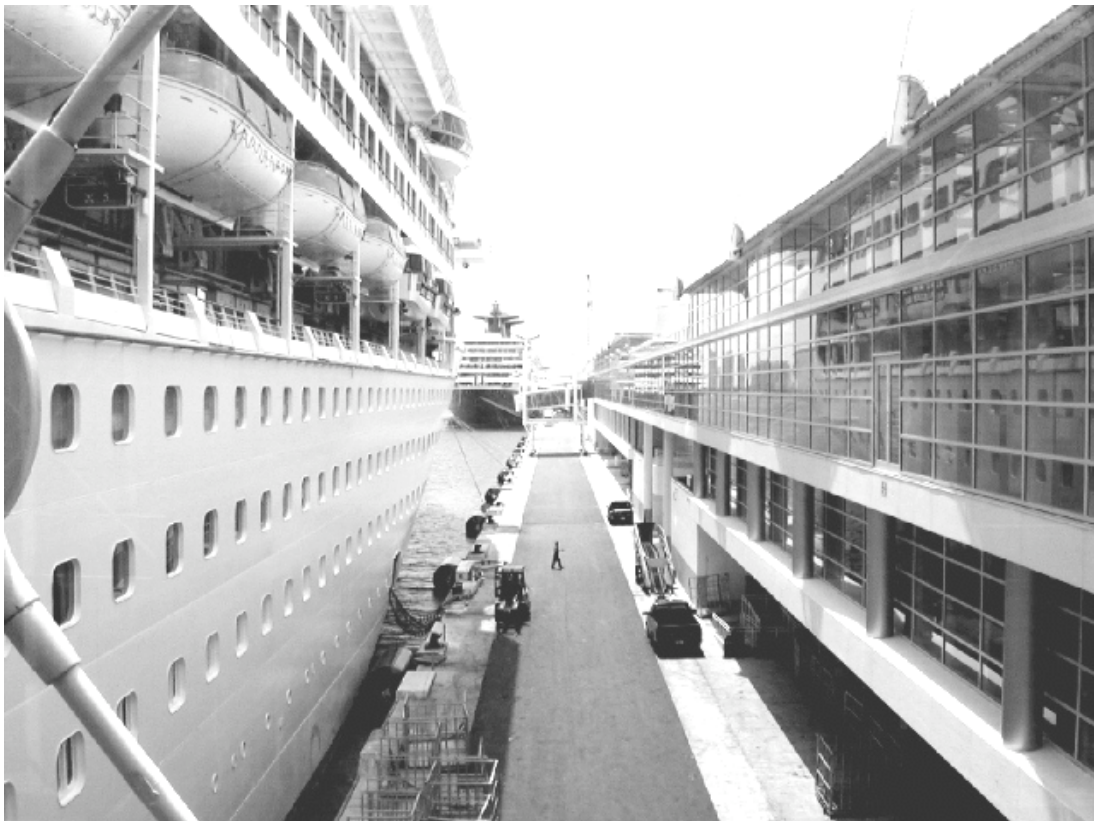
Horizontal Lines: Straight lines parallel to the horizon.

Vertical Lines: Lines that are drawn at right angles to the horizon, running straight up and down.

Diagonal Line: A straight line from a corner to the opposite (diagonal) corner of a cube, rectangle, parallelogram, etc.

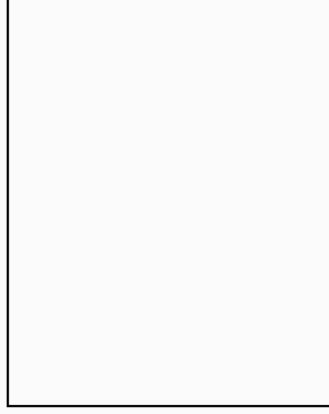
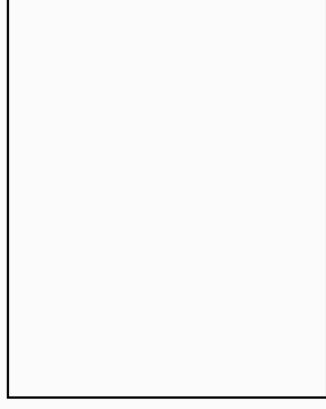
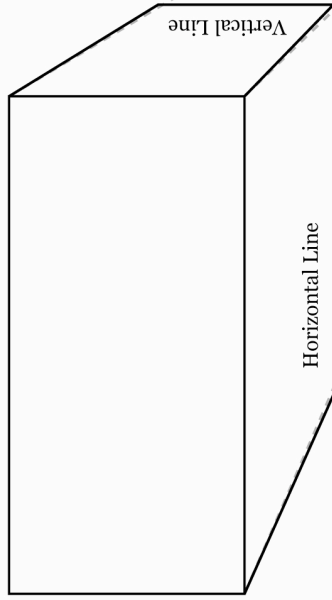
One-Point Perspective Pictures

With a pencil and an eraser draw the Horizon Line, Vanishing Point(s), Orthogonal Lines and Vertical Lines in these one-point perspective pictures. Label all.

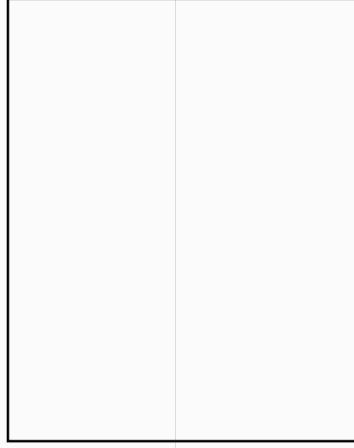
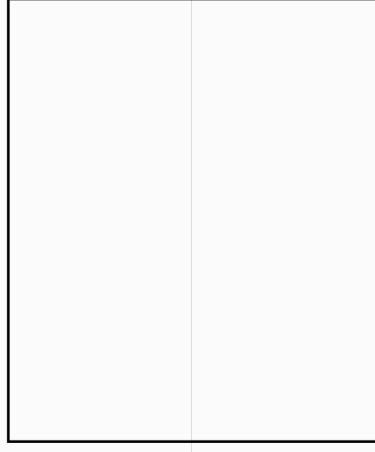
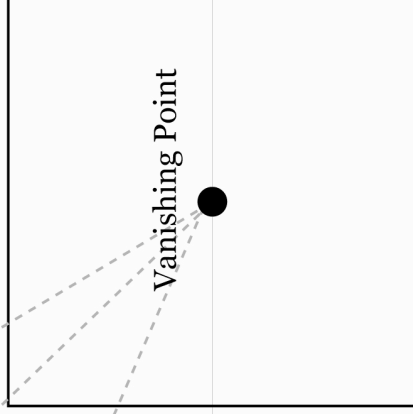


Boxes in Perspective

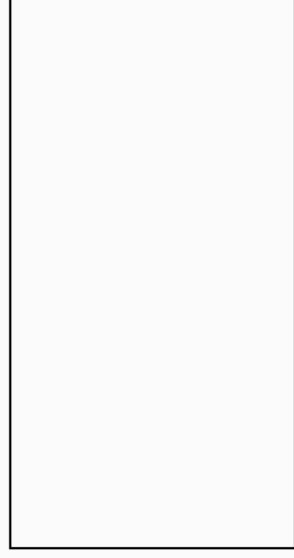
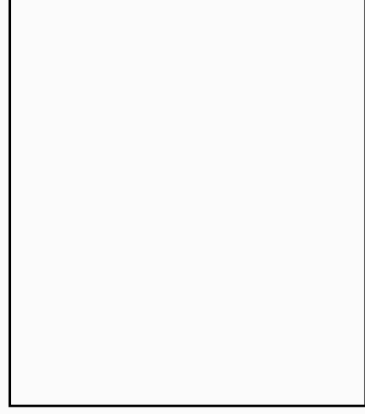
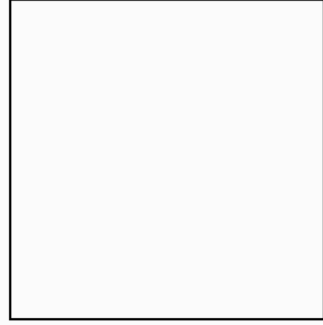
Connect the corners of the boxes to the vanishing point.
Draw the sides of the boxes with horizontal and vertical lines.
Erase the rest of the lines to the vanishing point.



Orthogonal Line



Horizon
Line



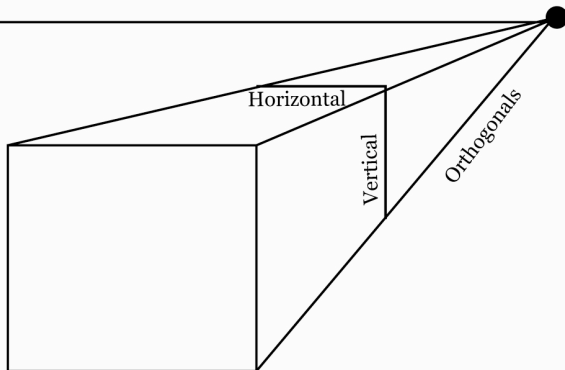
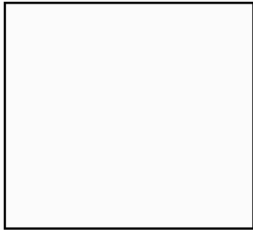
Drawing a City in One-Point Perspective

Look at the steps for creating a city in one-point perspective below. On the next page you will create your own city. Try large, small, fat, skinny and long buildings. Try adding details like windows, roads, benches, lights, cars, etc. Be creative!

Step 1: Draw a horizon Line

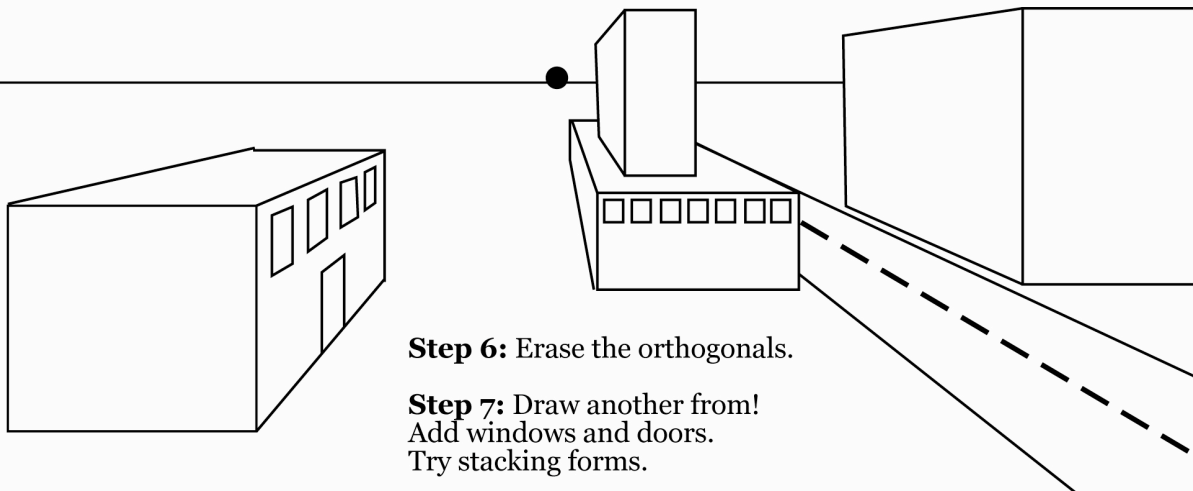
Step 2: Draw a vanishing point

Step 3: Draw a square or a rectangle



Step 4: Draw orthogonals from the corners to the vanishing point.

Step 5: Draw horizontal and vertical lines to end the building.



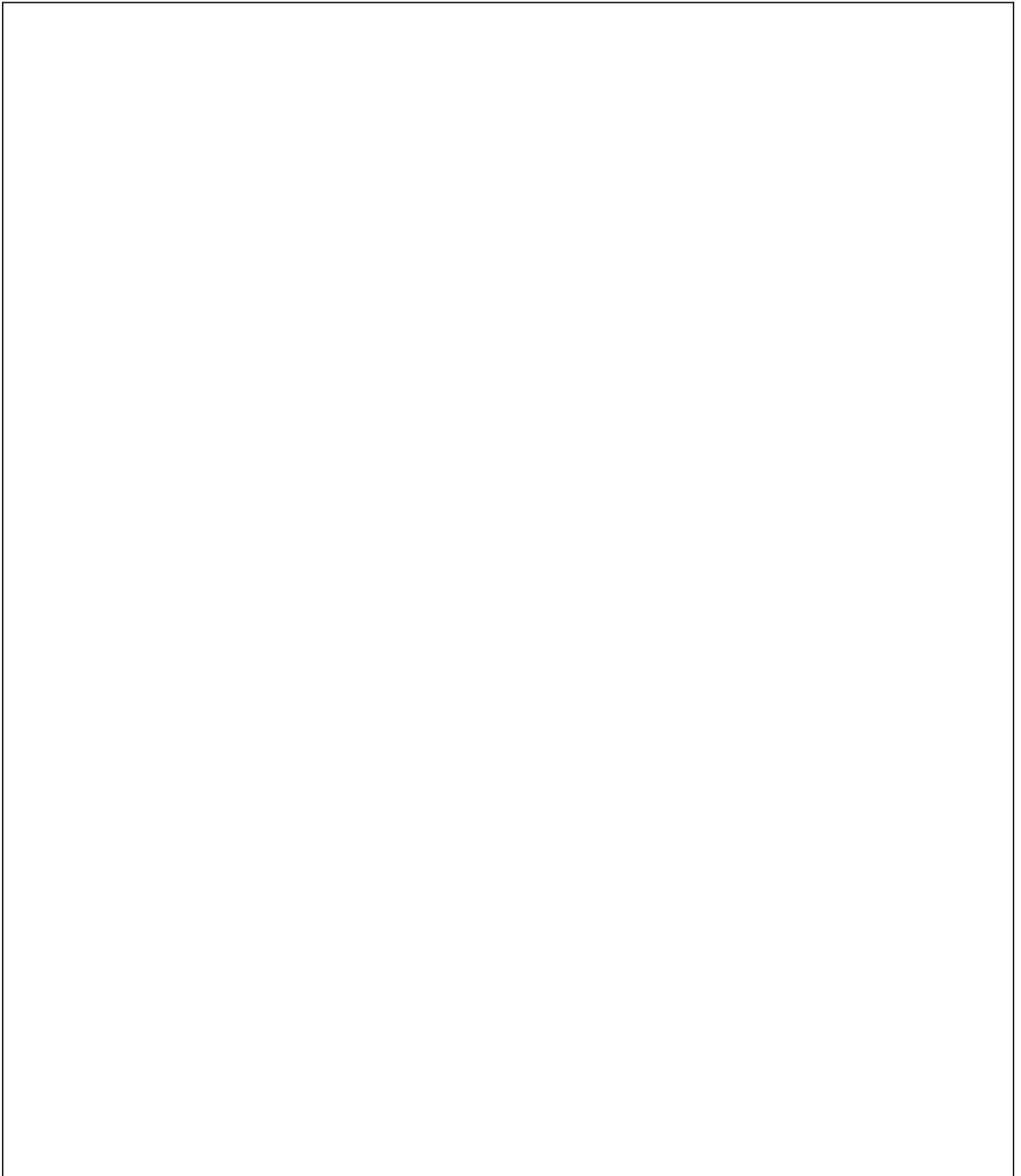
Step 6: Erase the orthogonals.

Step 7: Draw another from!
Add windows and doors.
Try stacking forms.

Draw Your City Here

Remember the steps:

Step 1: Draw a horizon line. Step 2: Draw a vanishing point. Step 3: Draw a square or rectangle. Step 4: Draw orthogonals from the corners to the vanishing point. Step 5: Draw horizontal and vertical lines to end the building. Step 6: Erase the orthogonals you don't need for the building. Step 7: Draw more buildings. Add windows, roads, doors, benches, lights, trees, cars, etc. Be Creative!



Two-Point Perspective Pictures

With a pencil and an eraser draw the Horizon Line, Vanishing Points, Orthogonal Lines and Vertical Lines in these two-point perspective pictures. Label all.



Drawing a City in Two-Point Perspective

Look at the steps for creating a city in tw-point perspective below. On the next page you will create your own fantasy city.

Step 1: Draw a horizon Line



Step 2: Draw two vanishing points



Step 3: Draw a vertical line for the front edge of your building



orthogonal lines

vertical

vertical

Step 4: Draw orthogonal lines from front edge to vanishing points

Step 5: Draw vertical lines for back edges of the building

Step 6: Connect top corners to opposite vanishing points



Step 7: Erase unused orthogonal lines

Step 8: Add windows and doors. Add more buildings, try stacking forms, etc.

