

## Three Point Perspective

### ? What are we covering today?

Yesterday, we were introduced to two point perspective. In most circumstances, two point perspective will create an acceptable illusion of space in a drawing. However, there are a few circumstances which require a different approach.

There may be times when an extreme view of your subject or subjects require you to use three point perspective.

For example, if the point of view is from an above angle, or a “bird’s eye view”, then three point perspective may be used.

Or, if the point of view is from an angle below the subject, or from a “worm’s eye view”, then three point perspective may be used.

Three point perspective creates a more dynamic view of the subject in space, but is used less often than two point perspective.

As the name implies, three point perspective utilizes three vanishing points. With three point perspective, two of the vanishing points are placed on the horizon line while the third is placed either above or below.

If the point of view is from a worm’s eye view, the third vanishing point is placed above.

If the point of view is from a bird’s eye view, the third vanishing point is placed below.

### ! Today’s Mindset

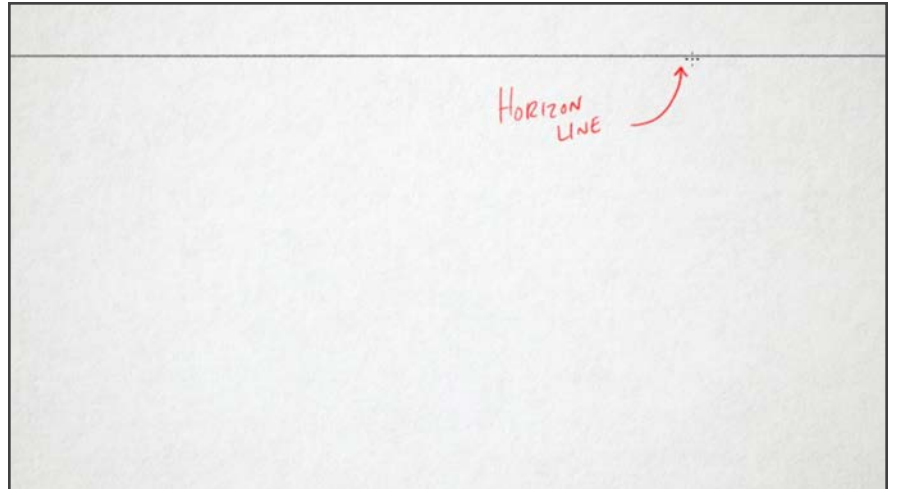
Before we explore how three point perspective works, let’s have a look at today’s mindset...

“Three point perspective is a graphical system that uses lines and three vanishing points to create the illusion of space in a drawing. It is used less often, but results in a more dynamic view of the subject.”

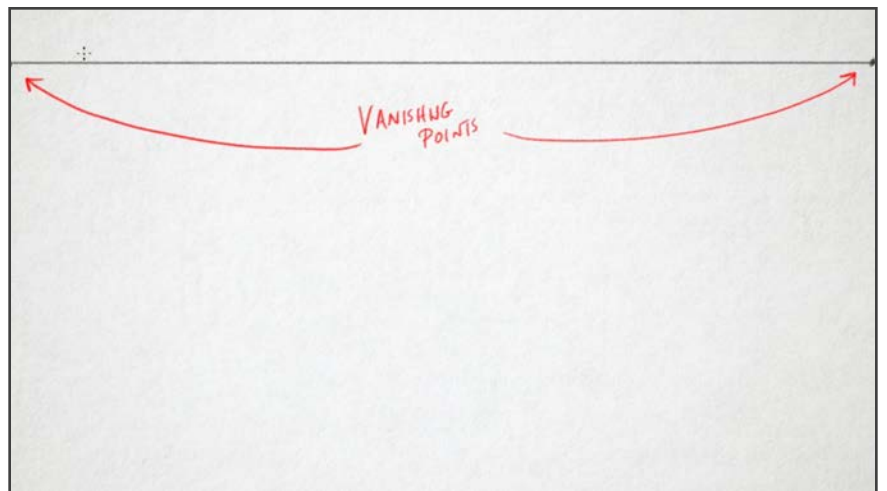
## How Three Point Perspective Works...

We'll first look at how the process works if we are looking down on the objects, from a "bird's eye view".

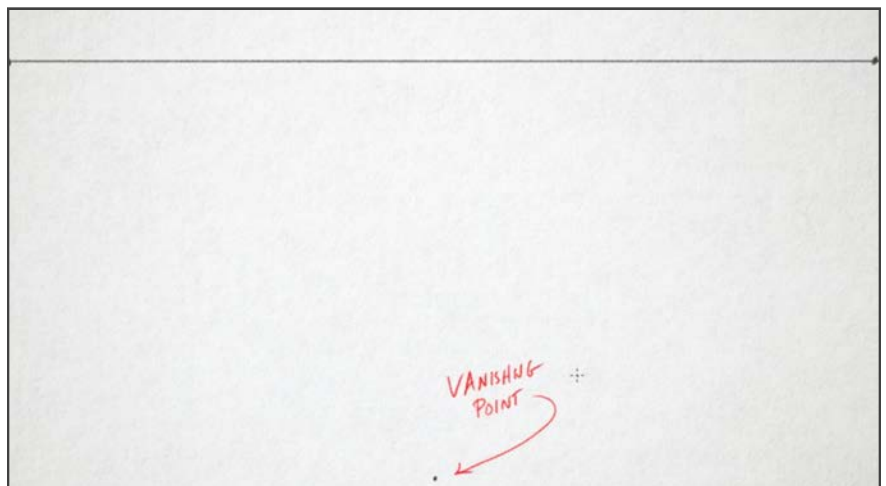
Three point perspective begins by first establishing the horizon line. When we are looking down on the objects, it's best to place the horizon line at the top of the picture plane or completely off of the top.



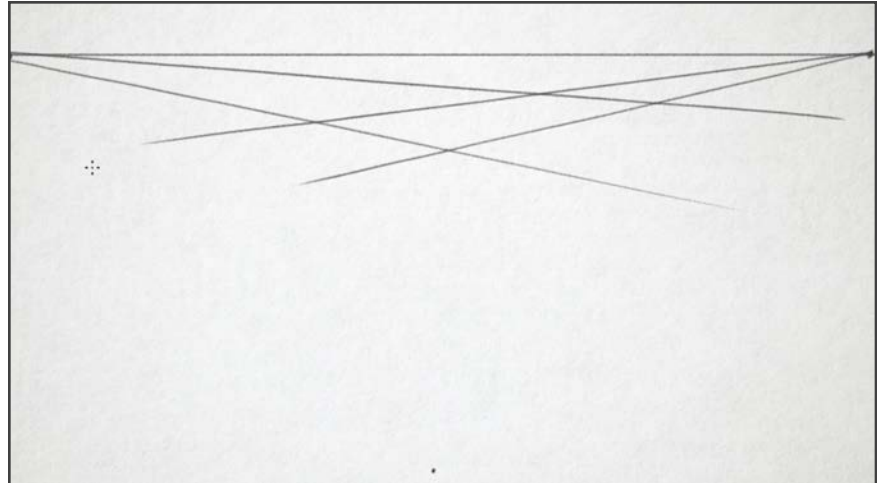
Next we'll establish two of the three vanishing points. Just like with two point perspective, we'll add two vanishing points on the horizon line with ample space between the two.



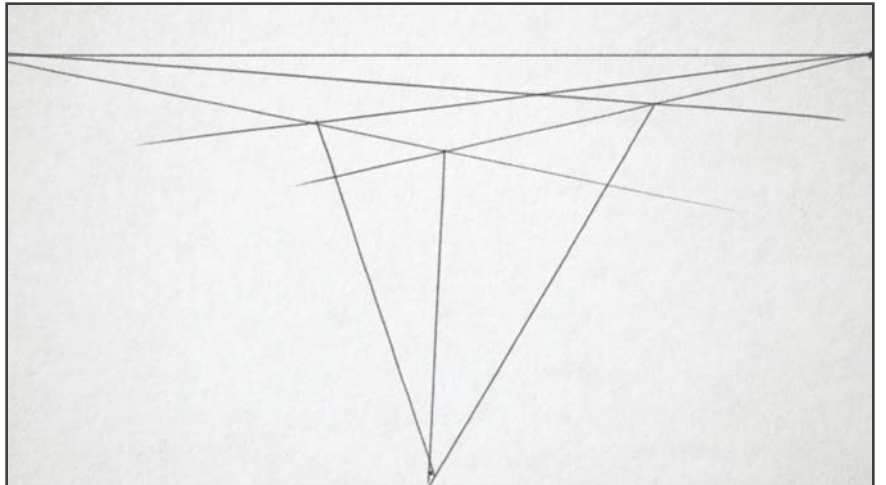
When looking down on the subject, our third vanishing point is found below the horizon line, in between the two vanishing points placed on the horizon line.



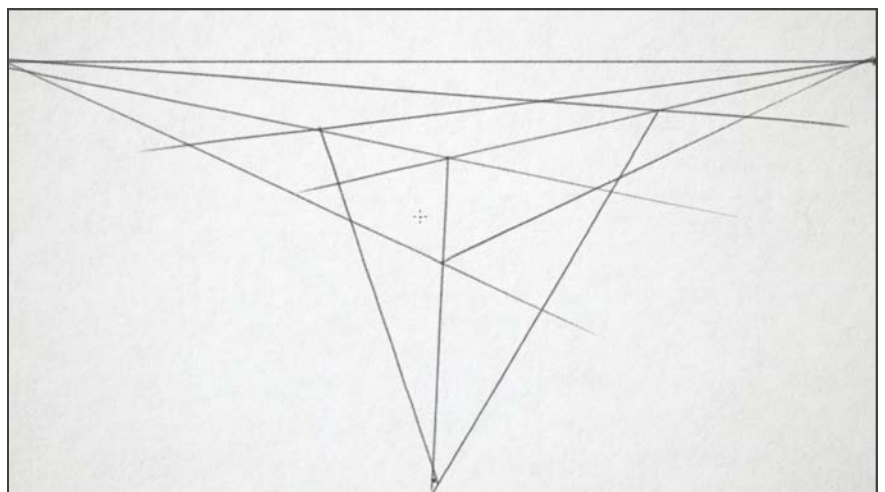
We'll draw two sets of lines to each of the vanishing points on the horizon line, allowing them to intersect. This establishes the top of our first form.



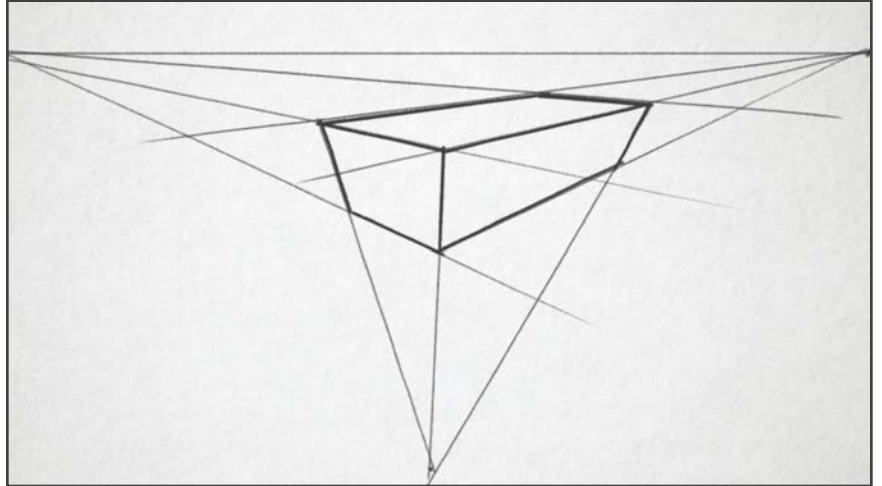
We can then draw lines from each of the points of intersection (corners) down to the third vanishing point. This establishes the edges and the front facing corner of our form.



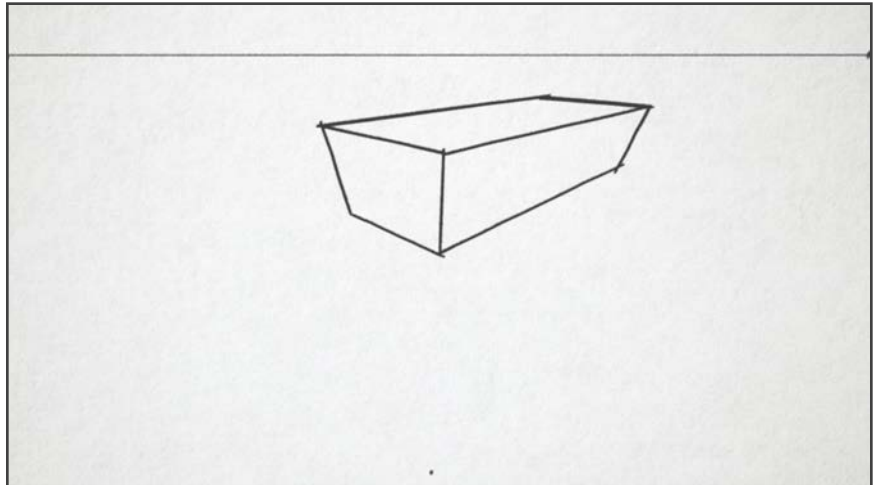
Two lines are drawn from each of the vanishing points on the horizon line to establish the bottom edge of the form.



Now our form is in place. We can go over the contours of the form to make it more visible.



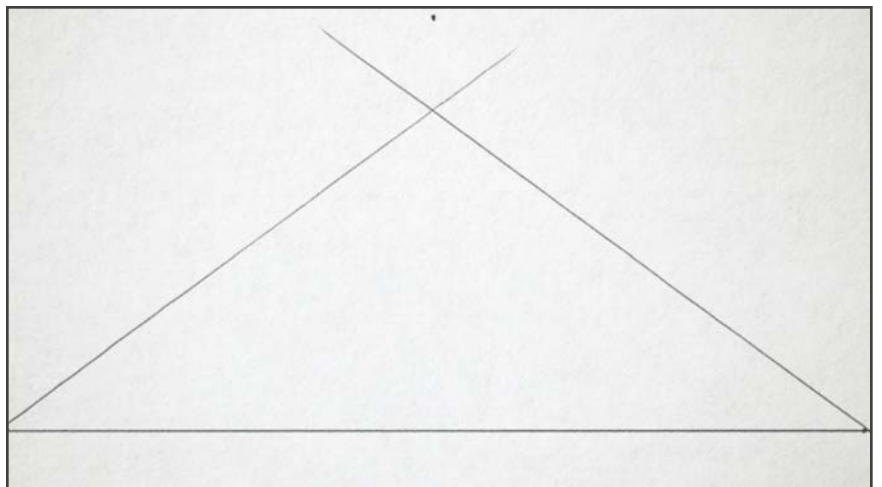
Erasing the lines that are no longer needed reveal the form in space.



Now, let's take a look at how three point perspective works when looking up at objects. This view is commonly referred to as a "worm's eye view".

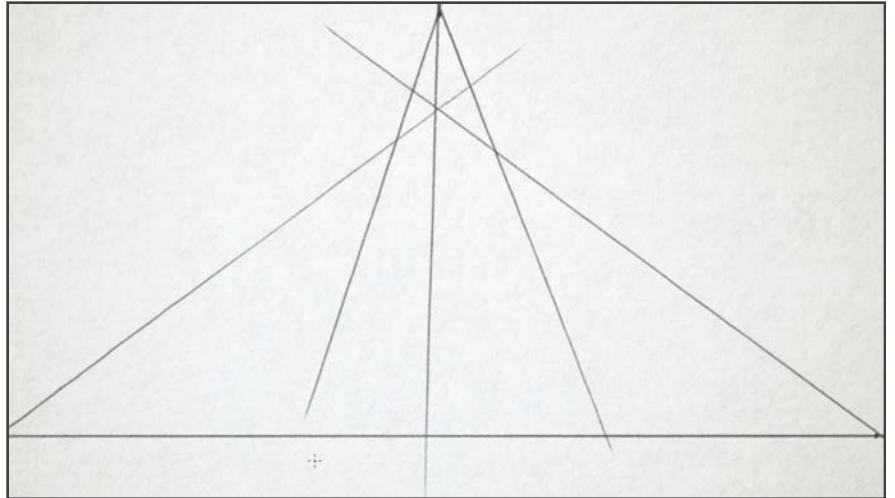
We'll again establish a horizon line with two vanishing points. This time, the horizon is placed lower on the picture plane. The third vanishing point is placed at the top.

We'll draw two lines from each of the vanishing points on the horizon line allowing them to intersect.

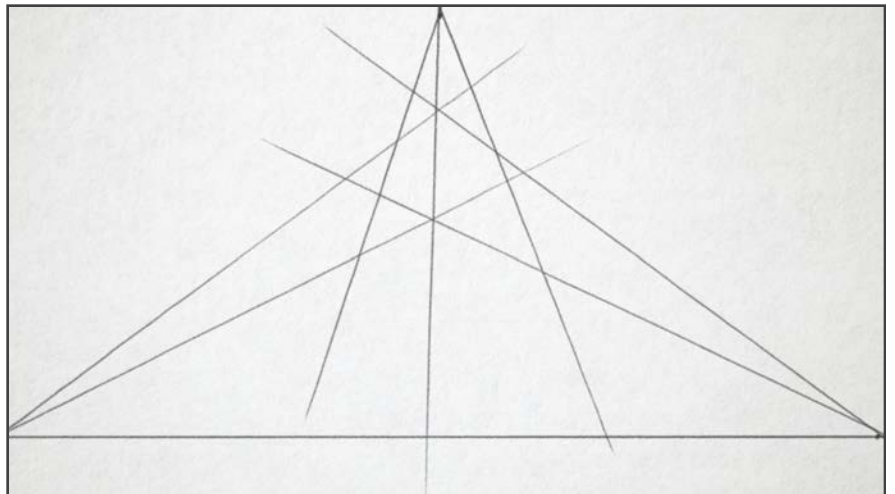


We'll establish the corner of our form with a line drawn down from the top vanishing point over the point in which the two lines intersect.

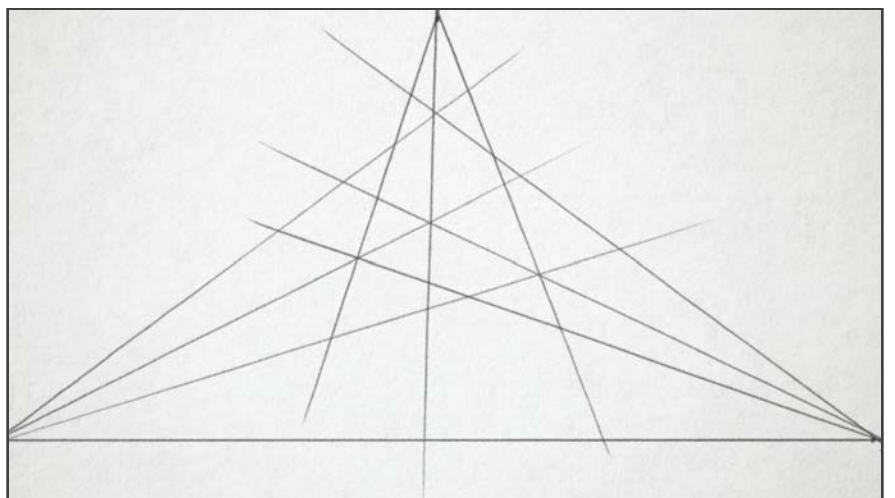
Then we'll draw two additional lines on either side, establishing the edges of the form.



To establish the sides of the form, a line is drawn from both vanishing points on the horizon line, intersecting at the line that was drawn for the corner.

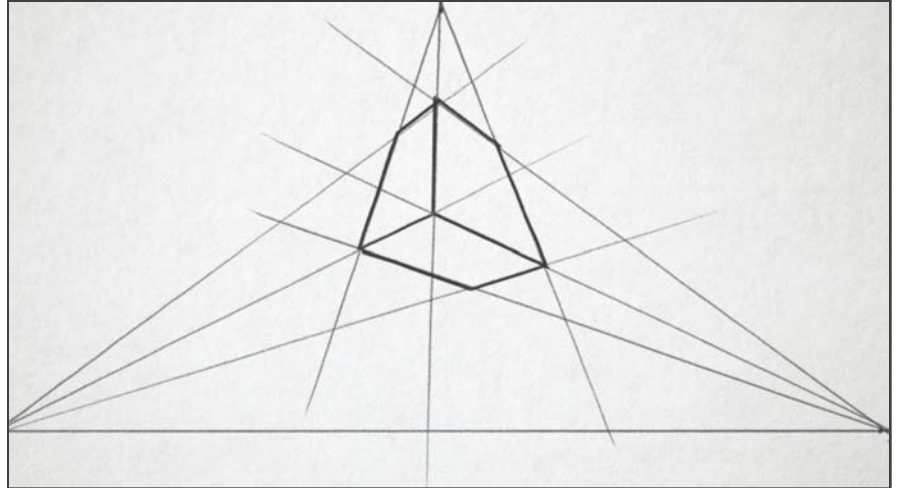


Two more lines are drawn slightly farther down, again extending from each of the vanishing points on the horizon line. These two lines establish the bottom of the form.

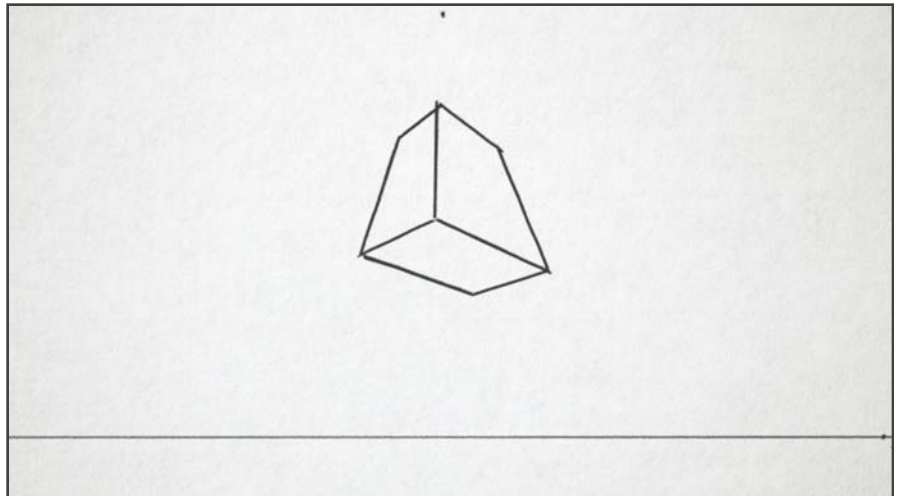




Now our form is in place. We can go over the contours of the form to make it more visible.



Then we can erase the lines that are no longer needed, revealing our form in space.

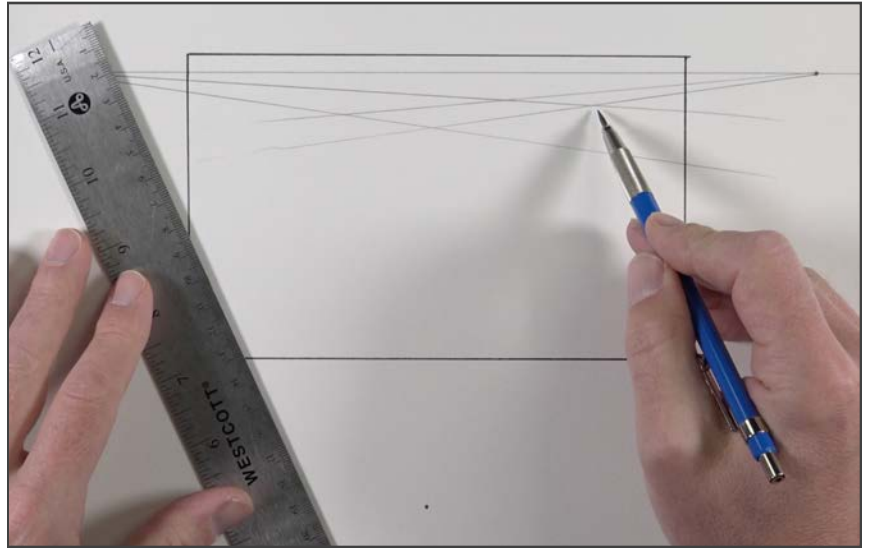


## Drawing Exercise #1

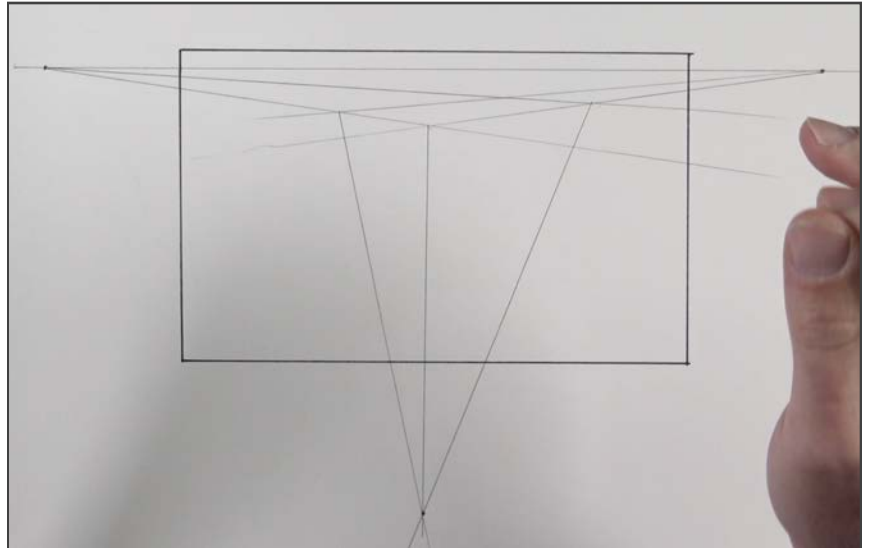
Now that we've had a look at the basics of three point perspective, we'll put this information into practice and create two quick sketches of street scenes. We'll begin by looking at the process of drawing a scene from a "bird's eye view", looking down on the scene.

In this example, we've established the picture plane with a black box. We'll place the horizon line at the top and extend it beyond the confines of the pictorial space. Both top vanishing points are placed outside of the picture plane. The third vanishing point is placed at the bottom, far outside of the picture plane.

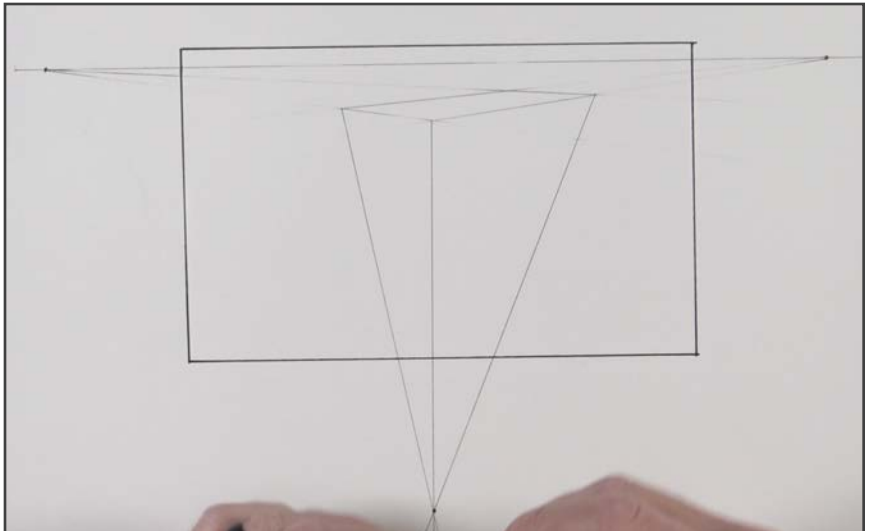
We'll draw two lines from each of the top vanishing points, allowing the lines to intersect.



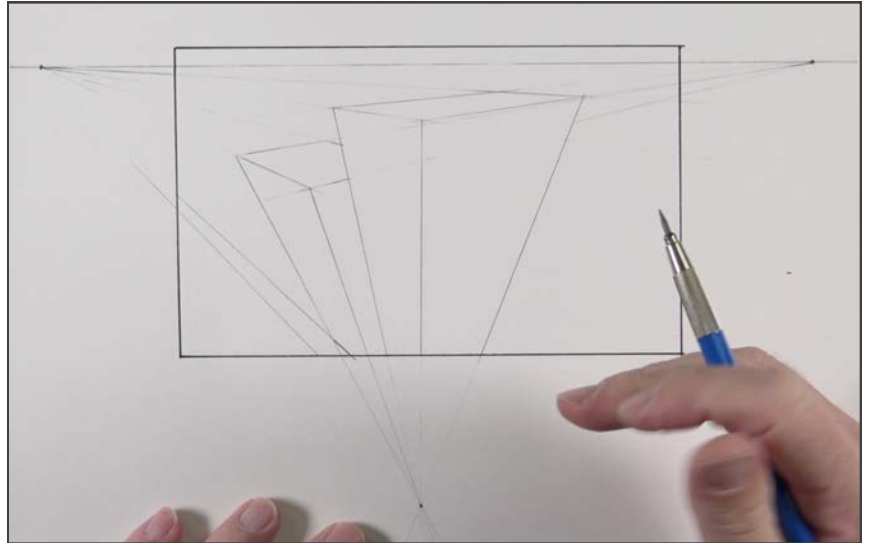
Then we'll draw lines from each of the intersecting corners down to the third vanishing point, establishing the corner and the sides of our first form.



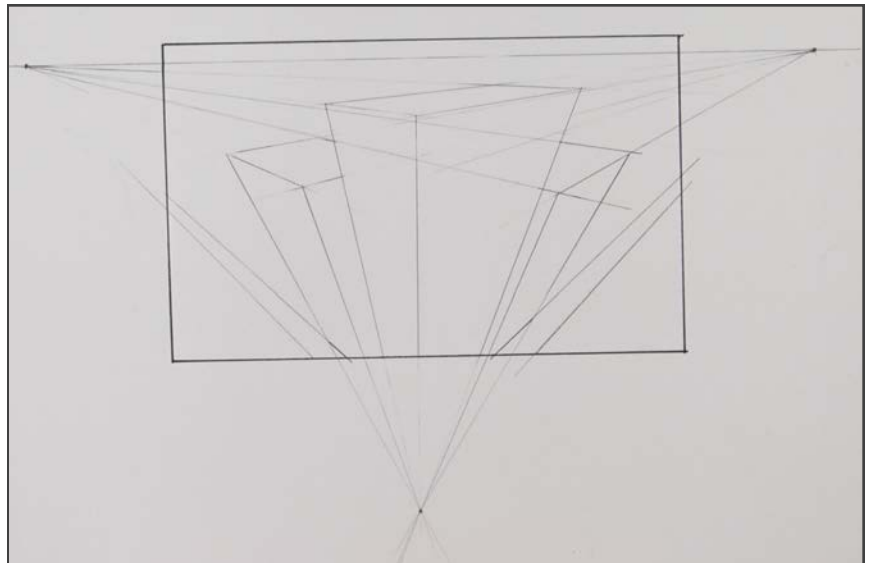
On our first building, we won't see the bottom since it extends beyond the confines of the picture plane. We can erase the lines that are no longer needed to reveal the form of our first building.



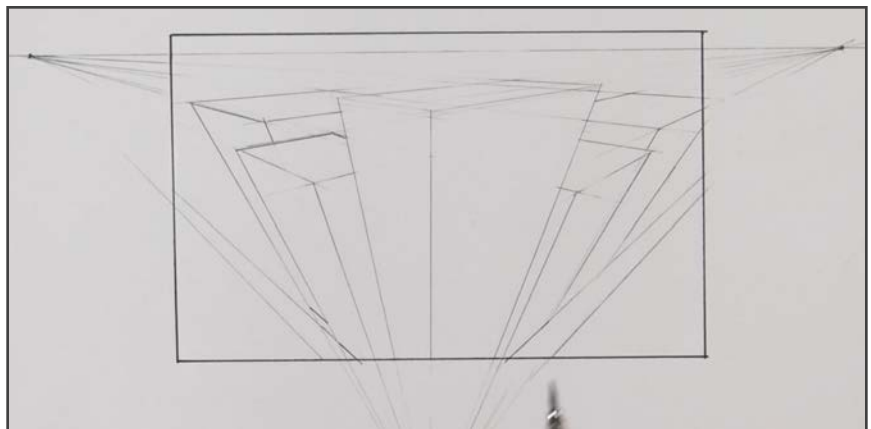
We'll draw a second building to the left of the first following the same steps. This time, we'll add a hint of the bottom edge with a line back to the left vanishing point on the horizon line. We'll also add an indication of a sidewalk with two lines back to the same vanishing point.



A third building is added on the right side of our first. Again, the same steps are followed to draw this form and an additional sidewalk is added.

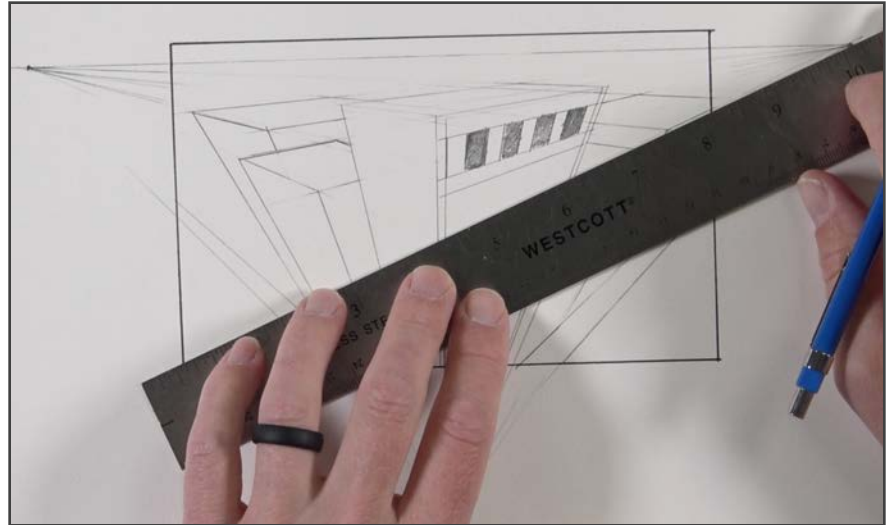


Two more buildings are added on either side. At this point, the process should be becoming more familiar. You're welcome to add additional buildings within the scene, if you feel that you need a little more practice.

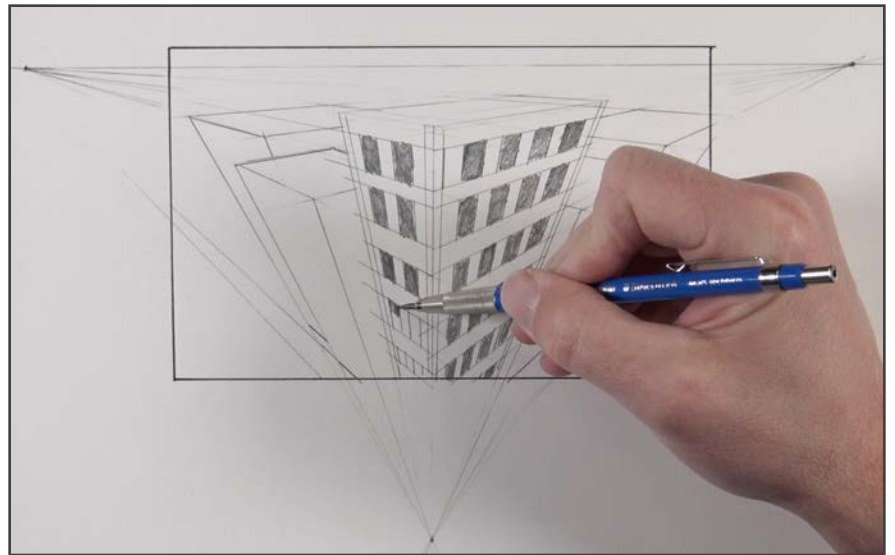




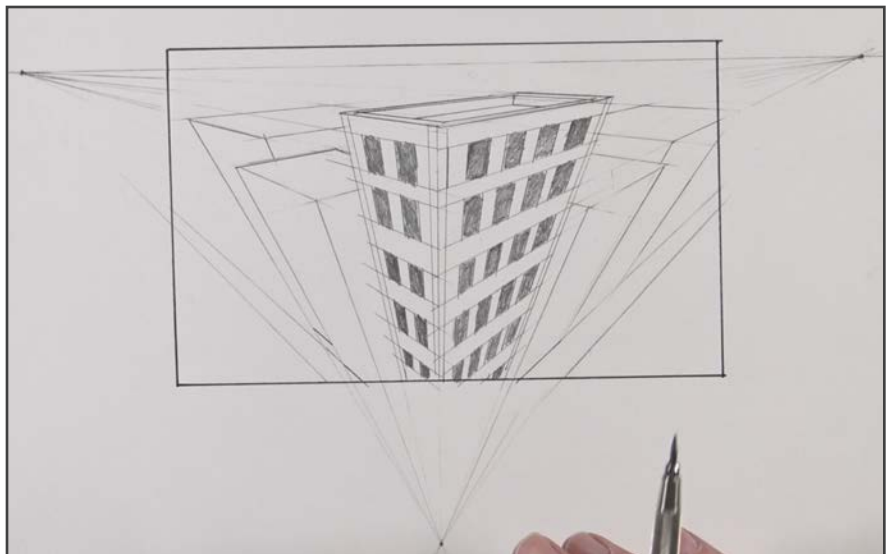
With our basic forms in place, we'll begin the process of adding a few details. We'll start with a few windows. On the right side of the corner, we'll draw boundary lines back to the right vanishing point on the horizon line. For each window edge, we'll draw lines down to the third vanishing point below.



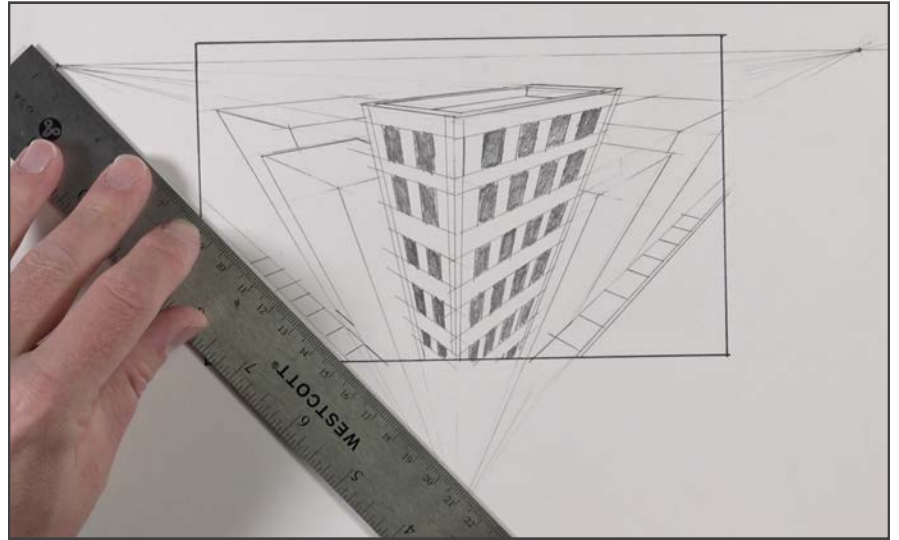
We'll add a few rows of windows on the left side. Since these windows are on the left side of the corner, we'll draw boundary lines to the left vanishing point on the horizon line. Each window edge is defined by a line down to the third vanishing point below.



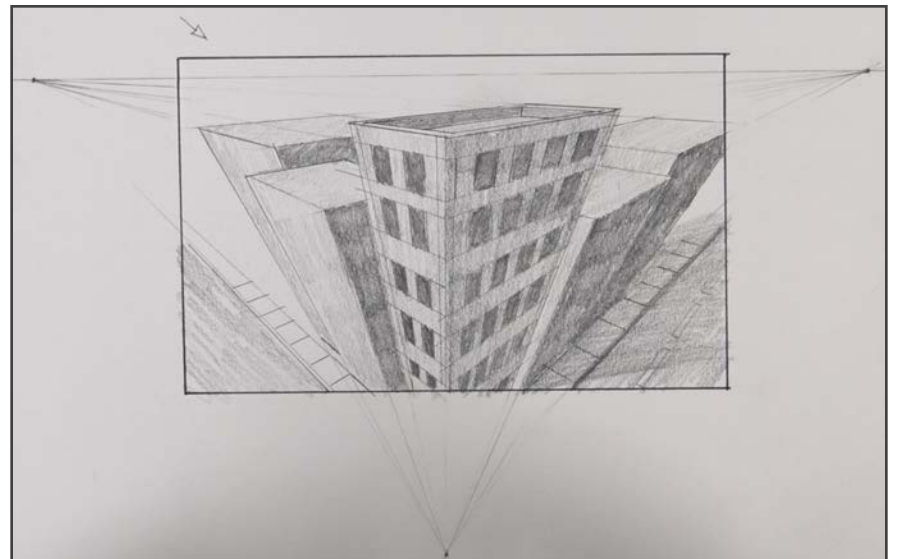
We can make the roof of the building recessed by adding a few more lines using all three vanishing points. Remember, when you are drawing buildings with three point perspective, each one of the lines that you draw will go to one of the three vanishing points.



We can add a curb and cracks to the sidewalk. Each line drawn for each crack in the sidewalk goes to the opposite vanishing point on the horizon line.



Assuming that the light source originates from the upper left, we'll add a touch of value and shading to complete our first sketch.

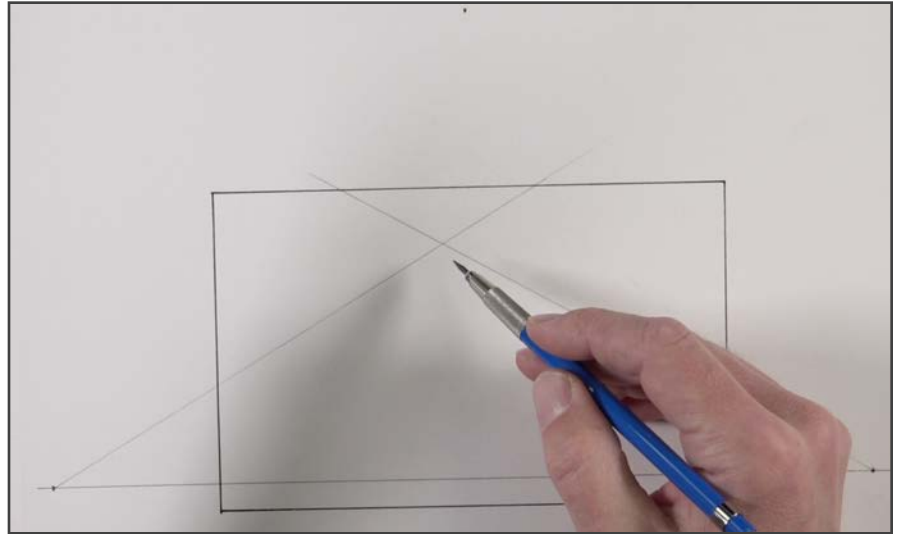


## Drawing Exercise #2

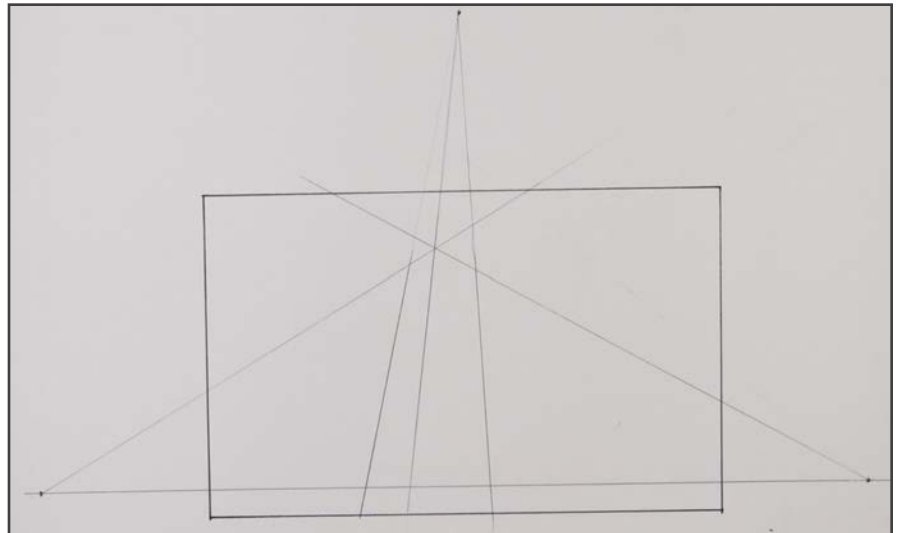
Now that we've had a look at using three point perspective to draw a view from above, we'll next take a look at drawing a scene from below. This extreme view is commonly referred to as a "worm's eye view".

We'll begin by again establishing our picture plane with a black box. This time, we'll place the horizon line at the bottom with both vanishing points outside of the pictorial space. Our third vanishing point is placed at the top, far from the confines of the picture plane.

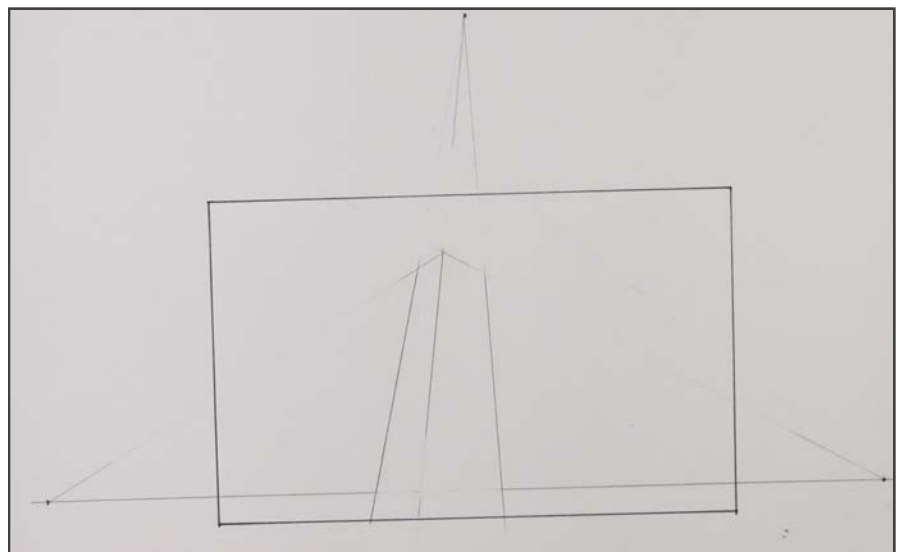
We'll draw two intersecting lines from each of the vanishing points on the horizon line.



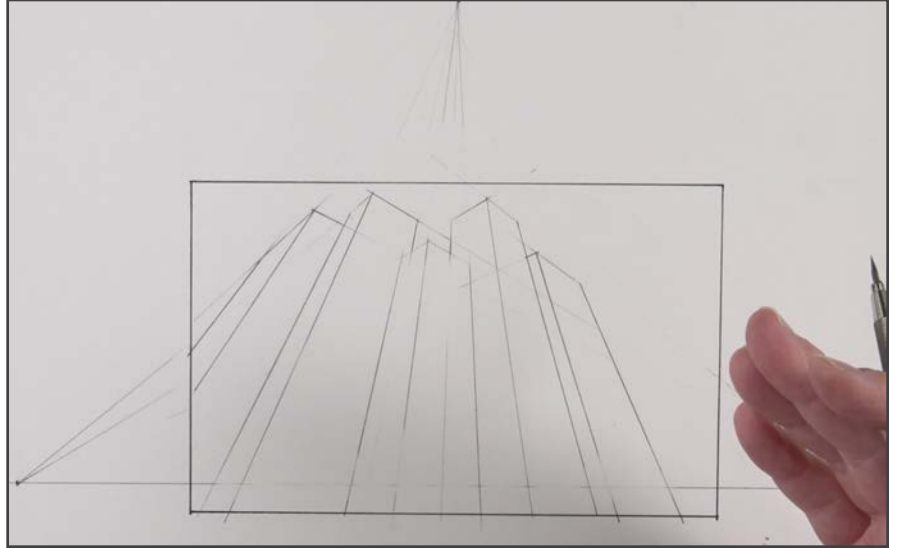
Next we'll define the corner and the edges of our first form with three lines down from the top vanishing point.



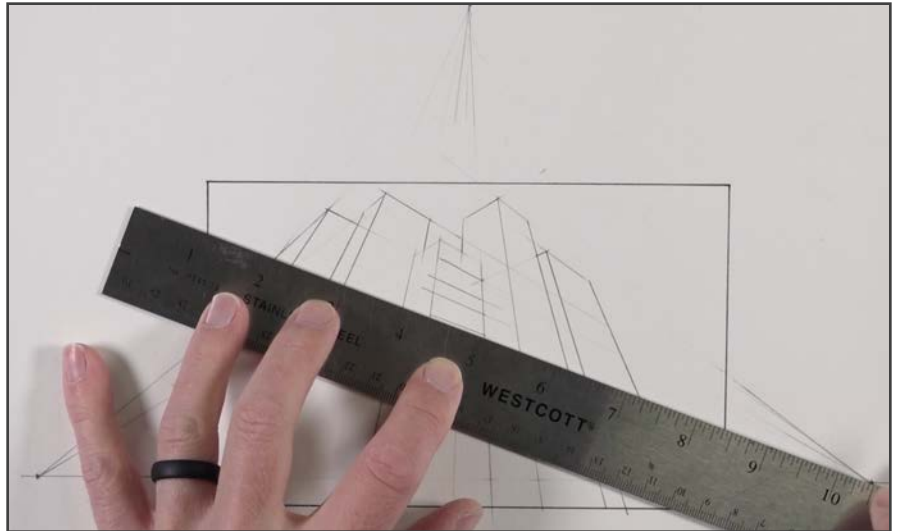
Since the bottom of this building and the others that we'll add extend off the picture plane, we can erase the lines that are no longer needed to reveal our first form.



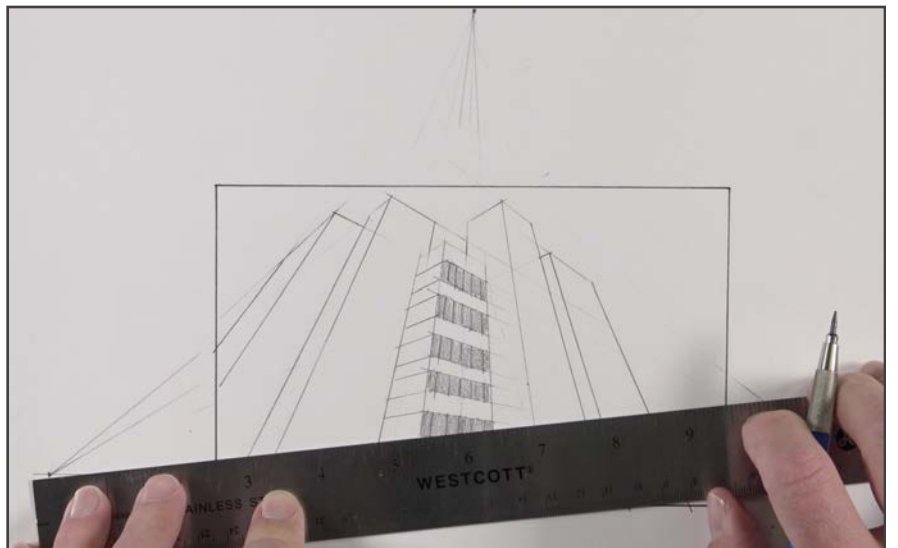
We'll add four additional buildings on either side of our first using the same steps and then erase any of the lines that we no longer need.



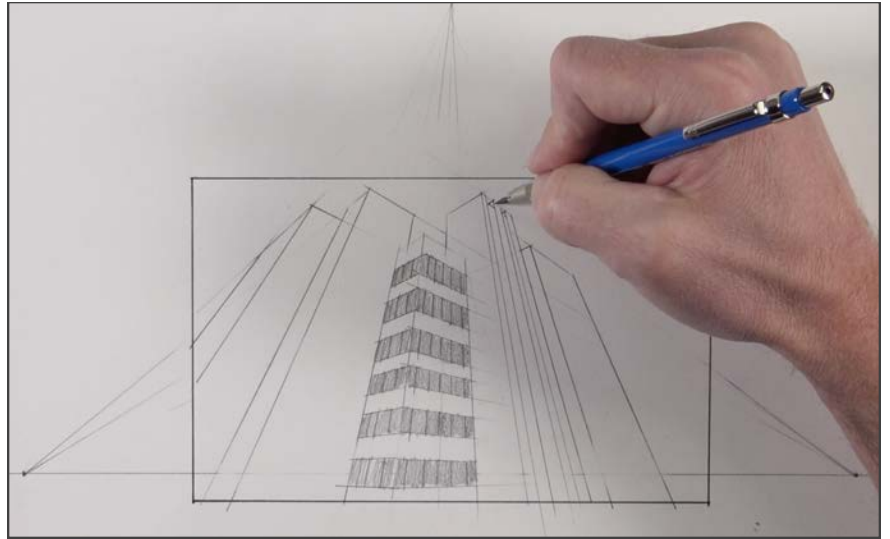
We'll add windows to our first building. For the windows on the right side of the corner, we'll use the right vanishing point on the horizon to define the boundaries. Then, we can draw lines to define the edges of each window using the vanishing point at the top.



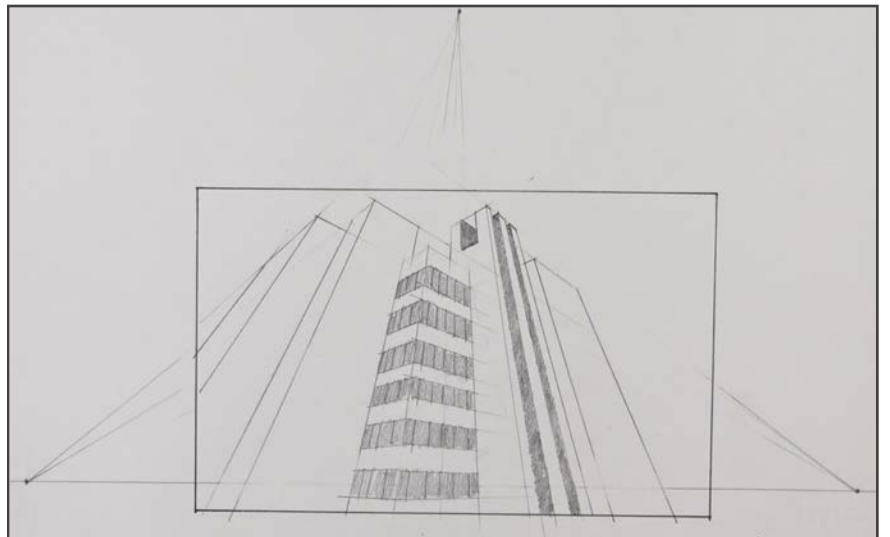
For the windows on the left side of the building, we'll use the left vanishing point to define the boundaries and again use the top vanishing point to define the edges of each window.



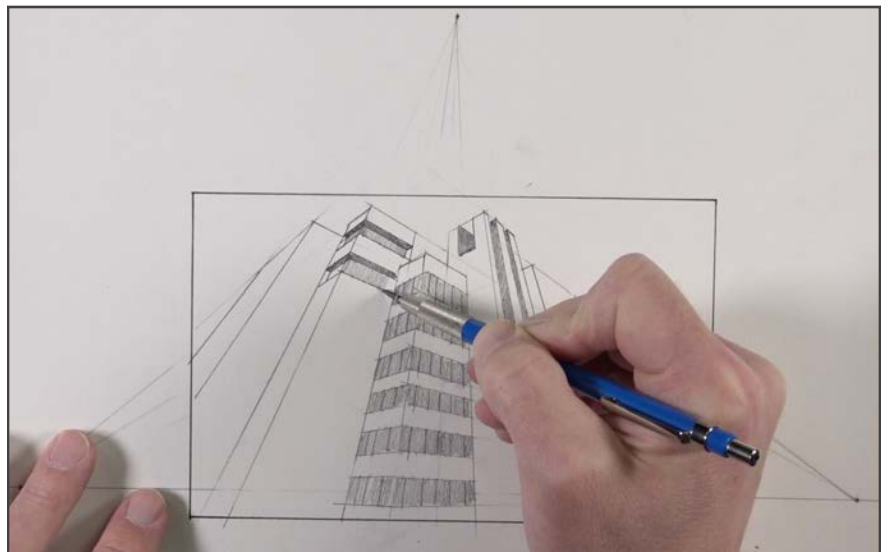
We'll add an architectural embellishment by drawing lines up to the third vanishing point. Then we can define the sides using the vanishing point on the left side of the horizon line.



We can add a "cutout" on the left side of the corner. Again, we'll use the top vanishing point along with the vanishing point on the right side of the horizon line to do so.

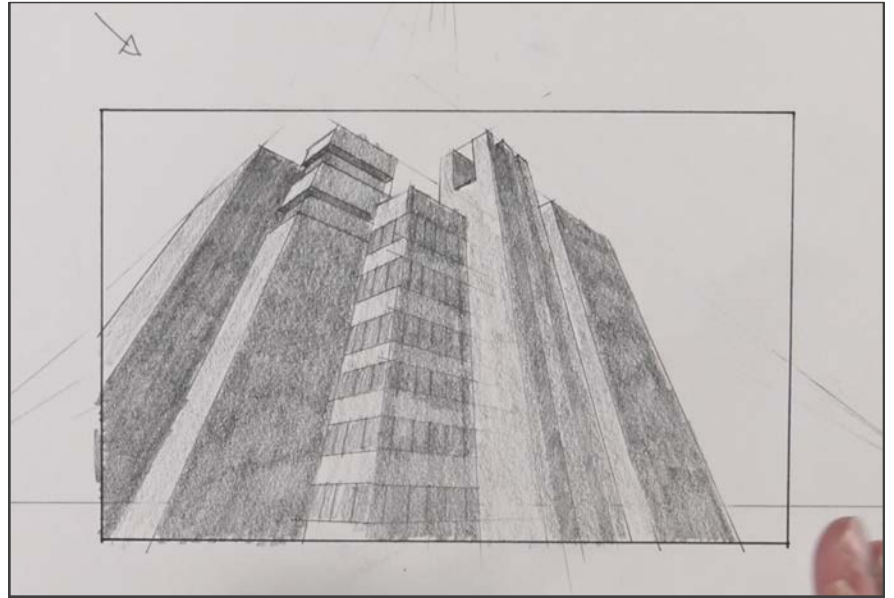


We can add additional embellishments to another building using all three vanishing points. Remember, with three point perspective, your straight lines will extend to one of the three vanishing points.





We'll add a bit of shading and value, assuming that the light source originates from the upper left, completing our second sketch.



Today we learned that three point perspective is another form of linear perspective that uses lines to develop depth in a drawing. We learned that three point perspective uses three vanishing points to create this illusion and leads to a more dynamic view of the subject.

Tomorrow, we'll take a look at strategies for observational drawing including sighting, measuring, and mapping.