Before we move on to ‘How to draw a two point perspective’, you will require a plan and an elevation of the ‘Object’ you wish to draw perspective of. With a more complex object you may require more than one elevation and possibly a section as well. All of which must be the same scale.

In the example that follows the elevations are comparatively simple, so they may not be necessary. Providing you know the dimensions it may be easier just to use a scale instead. However, on more complex objects it is not recommended, but it is possible to do an accurate perspective without the elevation views.

Next you will require a larger worktop to layout the plan, elevation and your working drawing. Once these have been set-up they must to be taped down. Next you will need a longer straightedge, a scale to match the scale of the plan, and the trusty pencil. In more complex jobs it may be advisable to use a range of coloured pencils.

On more complex studies you work will tend to a little dirty the longer you work on it. To avoid this, use a dusting brush regularly and avoid sliding the straightedge across your work.

The 2-point perspective (2PP) is so called because it has only 2 vanishing points. One on being the left side of the line of vision, and the other on the right. Depending on the shape of the object and how it is rotated the vanishing points will be sited differently. The steeper the rotation the nearer the vanishing point. A crucial aspect of the 2PP is that the horizon is always within the height of the object. Consequently, the vertical lines are drawn parallel to each other.

In the following step-by-step demonstration you will first see how to draw an example of a standard 2PP. After that, a few variations will be added. The methods used are common to any 2-point perspective.
The first thing you need to do is position the **Floor Plan** above your **Working Drawing**. Rotate it to the desired angle and tape it to your worktop.

Select a **Focal Point** on the plan and draw the **Line of Vision**. Then perpendicular to that at the **Focal Point** draw the **Picture Plane**. Next you will need to determine the distance of the **Viewing Point**. This should not be **Less** than the width of the viewed elevation or **Greater** than twice the width of the viewed elevation. However, this is merely a guideline, you can position the viewing point nearer or further if need be.

In this example the **Viewing Point** is approximately one and half times the viewed elevation.

At the **Viewing Point** and perpendicular to the **Line of Vision** draw the **Horizon**. The **Horizon** is always at eye level.

Next position the **Elevation** to suit.

As a rule the **Horizon** should be within the height of the elevation.
Next the vanishing points must be set-up. Parallel to each front face of the building draw a **Construction line** from the **Viewing Point** to beyond the **Picture Plane**. Where those lines **Intersect** the **Picture Plane** drop a **Perpendicular line** to the **Horizon**. These points are the 2 vanishing points. (**VP1 & VP2**)
With the set-up in place we can start plotting the vertical lines of building.

From the **Viewing point** draw a **Construction line** to the visible corners of the building. If the **Corner** is in front of the picture plane, extend it beyond the **Picture Plane**.

Where the **Construction line** **Intersects** the **Picture plane** draw a perpendicular **Vertical line** down on to the working drawing.

Do the same at each intersection.

In a 2-Point perspective these line will be parallel to the **Line of Vision**, whereas in a 3-Point perspective these lines will regress to the third vanishing point either above or below the horizon.
With the vertical lines in place we must now map the regression lines.

From each level on the elevation project a **Height lines** to the **Line of vision**.

From the **Intersection** of **Height Lines** and the **Line of Vision** draw the **Regression lines** to the left & right **Vanishing points**.

It is only at the line of vision that the building is to scale. On a simple object or building it maybe easier to use a scale rather than the elevation.
Starting with those faces linked to the **Line of vision** we can begin drawing the first building faces in perspective.
At the corner between the upper and lower portion of the building draw the **Regression lines** to the left **Vanishing point** and extend it to other corner’s **Vertical line**.

Then from that **Intersection** draw the **Regression lines** to the right **Vanishing point**.
With the regression lines in place the final building faces can be drawn.

That is the basically how to draw a simple 2 point perspective. Next we will look at how to add various details that you could be confronted with.
A typical example could be openings. Here a window has been added to the plan and elevation.

First the vertical line need to mapped.

To map the vertical lines of the window draw a **Construction line** from the **Viewing point** to both sides of the opening.

Where the construction line intersects the **Picture plane** drop the **Vertical lines** to the building face.
Here we will add a window opening.

First the window heights are **Projected** to the **Line of vision**.

From that intersection draw the **Regression line** to the left **Vanishing point**.

After the **Regression Lines** have been mapped the window opening can be drawn.
To map a window on the far side the **Vertical lines** are mapped in the same way as the previously and extended on to your working drawing.

Then the **heights** of the opening are extended from the elevation to the **Line of vision**.

Next the heights must be mapped from the line of vision down each building face to get to the opening.

Firstly, from the **Intersections** on the **Line of vision** add the **Regression lines** to the **Right VP**.

Then where the regression lines **Intersect** the corner, draw the second set of **Regression lines** to the **Left VP**.

Then where those regression lines **Intersect** the near corner, draw the last set of **Regression lines** to the **Right VP**.
All that is left is to draw the opening.
If this perspective was to a larger scale, it would probably be necessary to include the window revile and glazing.
With the **Vertical lines** and **Regression lines** in place the opening on the far side can now be drawn.

Here again if this was to a larger scale the window revile and glazing would also be added.
Here is how to draw a face that is not parallel to the others.

This is in fact a multi point perspective. Where the splayed wall will require it’s own vanishing point.

However, in this simple example it would probably be easier to do it under the 2-point perspective method.

All we need to do is map the position of the vertical lines as per previous examples.

Draw a Construction line from the Viewing Point to the 2 corners of the splayed wall.

Where they Intersect the Picture plane draw the Vertical lines and bring them down to the working drawing.

Once you have the position of the 2 corners, the roof line a floor line can be added.
Here we have an example of how a pitched roof can be added.

First plot the position of the Ridge and map the Vertical line.

Next the Height of the ridge must be extended to the Line of vision.

From that intersection draw a Regression line to the left Vanishing point.
The height of the gable will be the intersection of the **Regression line** and **Vertical line**.

Once you have the height of the gable in perspective, draw the gable end.

Finally, the roof can added by adding a regression line from the near gable ridge to the right VP.
That is how a typical 2-point perspective is drawn.
A simple example with little detail and no attention to depth beyond the front face. As said earlier the windows would probably be recessed and the roof would probably have an overhang.
But the important aspect of this demonstration is to shown you how to map those key points that will shape the perspective. Thereafter the details can be added.
In the next example we will be looking at a more complex example where you will be shown how to map points that are not related.
Here we have the Upper & Lower floor plan and 2 elevations for the proposed perspective. All of which are to the scale.
First set-up the working drawing at the lower right side of your work-top. Then above that place and rotate the floor plan to suit.

On a real point on the plan set-up a **Focal Point**. From the **Focal Point** add the **Line of Vision**, perpendicular to that at the **Focal Point** add the **Picture Plane**.

Then at a set distance position the **Viewing Point**, and perpendicular to the **Line of Vision** add the **Horizon**.

To map the position of the vanishing points draw a **Construction Line** from the **Viewing Point** to the **Picture Plane**. Both must be parallel to the 2 sides of the building.

At the **Intersection** drop a perpendicular **Construction Line** to the **Horizon**.

The 2 **VP's** are at the intersection of the vertical **Construction Line** and the **Horizon**.
This is the basic set-up to map the perspective for both the upper and lower floors.
Start by mapping the lower floor building points.

From the **Viewing Point** draw a **Construction Line** to each visible **Building Point**.
Where the Construction Lines **Intersect** the Picture Plane draw a perpendicular Vertical Line on to the working drawing.
Next project the **Heights** related to the lower the the **Line of Vision**.

At the **Intersection** of each **Height Line** and the **Line of Vision** draw a **Regression Line** to the left **VP**.

Then from the same **Intersections** on the **Line of Vision** draw a **Regression Line** to the right **VP**.

With the **Vertical Lines** and **Regression Lines** in place draw the 2 **Outer Faces** of the lower level.
To map the plinth the 2 ground Levels must be extended to the Line of Vision.

Where the Higher level intersects the Line of Vision draw a Regression Line to both VP's.

Because the lower ground level is on the Line of Vision it is not affected by the regression.

Thereafter, draw the plinth on both Faces.
Next the recessed faces related to the outer faces must be mapped.

From the top & bottom of the 2 columns on the right side of the building draw a **Regression Line** to the left **VP**.

Thereafter, draw the 2 exposed **Faces**.

Because the **Glass** face is on the same line it can added as well.
Next, from the top & bottom of the side column on the left side of the building draw the Regression Lines to the right VP.

Then from the top & bottom of near corner to the glass face draw a Regression Line to the right VP.

With the Regression Line & Vertical line in place draw the side Wall & Glass face.
Finally the **Regression Lines** from the recessed corner must be drawn to the left **VP**.

All that is left to complete the lower floor is to add that small portion of **Wall** next to the window plus the **Floor & Ceiling**.
Before we move on, the upper floor plan is added in the exact same position as the lower floor.

The first thing we notice is that there are no visible common point to map the upper floor. So we have to create our own.

First extend the **Line** of the recessed face to the outer face of the building. There a temporary **Off-set** point is placed.

Then from the **Viewing Point** draw a **Construction Line** to the **Off-set** point and the corner **Building** point. Where those **Construction Lines** **Intersect** the **Picture Plane** drop a perpendicular **Vertical Line** on to the working drawing.
Next extend the heights \[1\] \[2\] \[3\] to the Line of Vision.

At the intersection of \[1\] \[2\] \[3\] draw a Regression Line to the right VP.
Then where the regression lines [1] [2] [3] intersect the **Vertical Line** of the **Offset** point draw the [1] [2] [3] regression lines to the left **VP**.
These [1] [2] [3] regression lines are the 3 relevant heights on the recessed face line.
Now we can start mapping the upper floor.

From the **Viewing Point** draw a **Construction Line** to each visible **Building Point**.
Where each construction line *Intersects* the *Picture Plane* draw a perpendicular *Vertical Line* on to the working drawing.
Now we can start drawing the faces to the upper floor.

Firstly, from the Intersection of the [2] regression line and the corner Vertical Line draw a Regression Line to the right VP.

With the mapping done, the Front recessed face and Side face can be drawn.

Note: The Side face is temporary as it does contain a window that will be mapped later.
Then from the **Intersection** of the [1] regression line and the recessed corned **Vertical Line** draw a **Regression Line** to the right **VP** and extend it to beyond glass face **Vertical Line**.

Where that **Regression Line** intersects the glass front face **Vertical Line** add a **Regression Line** to the left **VP**.

With the vertical lines and regression in place draw the **Font & Side** face of the bay window.
At the Intersection of the corner Vertical Line and the [3] regression line draw a Regression Line to the right VP and extend it to outer corner Vertical Line.

From the intersection of the right Regression Line and the outer corner Vertical Line draw a Regression line to the left VP.

With the last regression and vertical lines in place draw the Front & Side faces.
Then from the top corner of the wing wall draw a **Regression Line** to the right **VP**. Thereafter, draw the wing wall on the upper floor.
All that is left is to add the window on the side face.

Because we do not have a point that relates to the existing, we have to create one as we did with the upper floor plan.

The Offset point is far corner of the side face and the back.

From the Viewing Point add a Construction Line to the Offset point and the Window.

Where the Construction Lines Intersect the Picture Plane drop a perpendicular Vertical Line on to the working drawing.

Then from the elevation project the Heights to the Line of Vision. At that Intersection draw the Regression Lines to the right VP.

Then where the Regression Lines Intersect the offset Vertical Line 2 Points are added.
Then from those 2 Points on the offset Vertical Line draw the 2 Regression Lines to the left VP.

Where those Regression Line intersect the window Vertical Line is the heights of the window.

Then from that intersection draw a Regression Line to the right VP. Because the lower portion of the window is obscured there is no need for a regression line.
This is a typical example of a 2-point perspective of the 2 level building.