Assignment-6

- What is a perspective grid? Explain in detail.

A perspective grid is a drawing framework that combines a horizon line (a horizontal line representing your field of vision), orthogonal grid lines (lines that "vanish" into a focal point), at least one vanishing point (a point on the horizon line where all lines converge), and at least one corresponding plane (a surface that you, the viewer, see as represented by the grid lines).

Illustrator allows the use of specially designed grids to act as a guide when drawing in perspective. To display the perspective grid with two vanishing points by default, choose in the menu View / Perspective grid / Show grid.

Drawing on a perspective plane

By default, the perspective grid with two vanishing points is displayed. To be able to adjust it, you need to select the Perspective Grid tool from the toolbox. To draw a shape based on one of the perspective planes, select the desired plane in the change plane widget, then draw the shape on the plane. To draw another shape on the other plane, change the plane in the widget and draw the second plane. To modify a shape drawn on a perspective plane, use the Perspective Selection tool and make the desired changes. It is possible to display a perspective grid with one, two or three vanishing points. To do this, choose the desired grid in the DISPLAY / PERSPECTIVE GRID menu.

Horizon Line

The horizon line is your horizontal view at eye level. As your eyes can see nearly 180 degrees across, the horizon line mimics this on the page.

A horizon line right in the middle of the canvas assumes you are staring straight across at the scenery. A lower horizon line means you are looking down toward it, a higher horizon line means you are looking upward. An angled horizon line means you have tilted your head or viewpoint in an unusual way, and is a great way to add fresh angles to your illustrations.

Orthogonal Lines

Orthogonal lines or perspective lines are the grid lines that disappear into the horizon, representing the 3-dimensional plane you follow forever into the distance. Each vanishing point (see below) has its own set of orthogonal lines.

Vanishing Point

A vanishing point acts as a focal point for all orthogonal lines heading into the distance.

The number of vanishing points on your horizon line is equivalent to the number of planes you'll view on your grid. One point perspective has just one vanishing point, and as the viewer, you will see only a single, front surface or plane of your object. Two point perspective has two vanishing points that show two planes from your viewpoint. Three point perspective has three vanishing points that reveal three planes of your object.

Plane

If you were to visualize a plane, it would be completely flat. An area with only one plane would appear as flimsy as a piece of paper.

Two planes could either run parallel or intersect at a line. As you are a single viewer with options to focus on two separate points on the horizon line, these two corresponding planes would intersect with a vertical line where you stand. Imagine two pieces of paper criss-crossing at a full length or edge.

If you added a third dimension to the two mentioned above, it would angle perpendicularly to both the first two planes (think X, Y and Z axis).