

Space, Perspective, & Proportion

Vocabulary

- Line
- Shape
- Form
- Parallel
- Converge
- Horizon Line
- Vanishing Point
- Orthogonal Lines
- Space
- Proportion
- Perspective
 - Linear Perspective
 - Aerial Perspective
- Foreshortening
- Overlap

History of Perspective



Egyptian Wall Painting. 2548-1350 B.C.

History of Perspective - Credit is given to Renaissance artist Filippo Brunelleschi for developing the type of one point perspective used by artists today.





Leonardo da Vinci. *The Last Supper*. 1499.



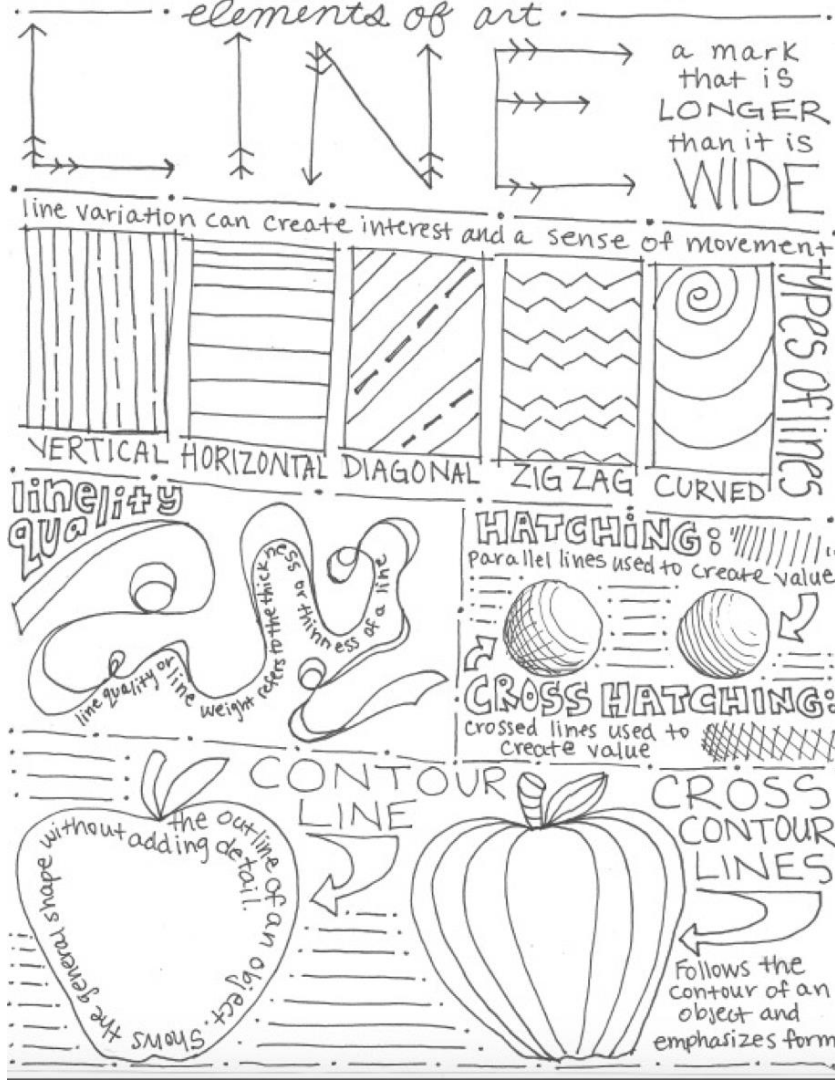
Gustave Caillebotte. *La place de l'Europe, temps de pluie*; 1877



Thomas Cole. *View from Mount Holyoke, Northampton, Massachusetts, after a Thunderstorm. 1836.*

Line

Review your elements sheet about line.



Shape

Review your elements sheet about shape.

elements of art

SHAPE

LINES are used to create SHAPES. SHAPES are two dimensional.

GEOMETRIC SHAPES

□ ○ △ ▭ ○

GEOMETRIC SHAPES can be described using mathematical equations. They are typically described as being man made.

SHAPES are defined by POSITIVE and NEGATIVE SPACE. The SHAPE is the POSITIVE SHAPE. The area around the shape is the NEGATIVE SPACE.

POSITIVE SPACE
NEGATIVE SPACE

POSITIVE and NEGATIVE SPACE can be used to trick your eye.

Do you see 2 faces or 1 vase?

Different SHAPES can be used to create objects.

triangle
cylinder
oval
circle

ORGANIC SHAPES don't seem to follow any mathematical equation. They are typically associated with nature and are also referred to as free form.

[Form](#) (Click for link)

Learn about the element of form by reading the worksheet.

elements of art

FORM

objects that are three dimensional (3-D). Often used when describing sculpture. Two dimensional art can create the illusion of form through the use of PERSPECTIVE and SHADING techniques.

Shape versus FORM



SHAPES have width and height while FORM have depth, width and height.

GEOMETRIC FORM



math can be used to create these and they are typically man made.

ORGANIC FORM



doesn't appear to follow any mathematical rules. Typically aren't man made and are associated with nature.

SHADING

is an important technique to create an illusion of form



HIGHLIGHT
MIDTHONE
SHADOW
CAST SHADOW

[Form](#) (click for link)

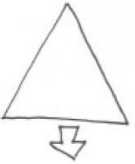

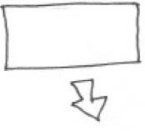
Complete your elements sheet about form and turn it in on **Google Classroom**.

elements
of art

FORM

Complete the worksheet. Reference the front if you need help!


Redraw the following SHAPES as FORMS

		
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draw 2 examples of GEOMETRIC FORM

Shade the object and label the: HIGHLIGHT, SHADOW, CAST SHADOW, and MIDTONE

draw 2 examples of ORGANIC FORM



[Space](#) (click for link)

Learn about the element of space by reading the worksheet.

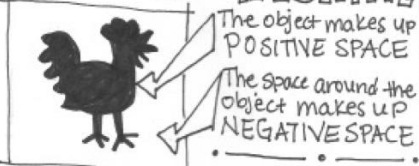
elements of art

SPACE

In art SPACE is defined by the artist and includes the BACKGROUND, FOREGROUND, and MIDDLE GROUND.

There are 2 types of SPACE: POSITIVE and NEGATIVE

Artists often try to create an ILLUSION OF SPACE

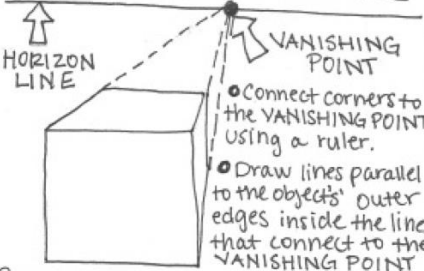


1 The object makes up POSITIVE SPACE
2 The space around the object makes up NEGATIVE SPACE

PERSPECTIVE

a drawing technique that uses LINES to create an ILLUSION OF SPACE:

one point perspective



1 Connect corners to the VANISHING POINT using a ruler.
2 Draw lines parallel to the object's outer edges inside the lines that connect to the VANISHING POINT

1 OVERLAPPING: happens when objects that are closer block objects that are farther away.
2 PLACEMENT: objects higher in the image appear farther away.
3 SIZE: Objects that are smaller appear farther away.
4 DETAIL: objects that are farther have less detail.
5 COLOR AND VALUE: objects that are farther appear to be cooler in color and lighter.

PERSPECTIVE creates an illusion of DEPTH. Multiple VANISHING POINTS can be used to create more complicated ILLUSIONS OF SPACE

[Space](#) (click for link)

Complete your elements
sheet about space and
turn it in on **Google
Classroom.**

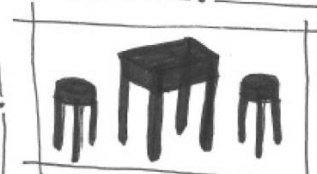
Complete the worksheet. Reference the front if you need help!

elements of art

SPACE

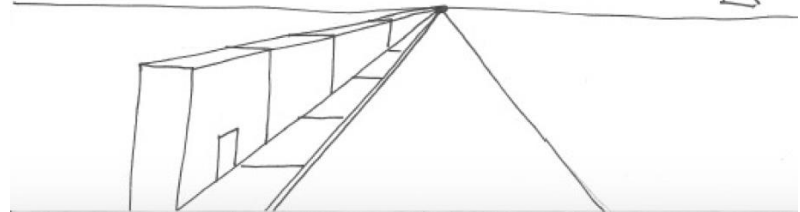
add your own VANISHING POINT to the line and use PERSPECTIVE to make the letters look 3 dimensional.

CREATE a picture that shows ILLUSION use 5 different methods OF SPACE to create SPACE.



IDENTIFY the Positive and Negative SPACE

Using ONE POINT PERSPECTIVE add details to the city and more buildings on the right side of the street



How does this artist show space?



John Sloan, *South Beach Bathers*, 1907-08

How does this artist show space?

Background

Middleground

Foreground



John Sloan, *South Beach Bathers*, 1907-08

How does this artist show space?

Depth

Strategies:

- Overlapping
- Position on the picture plane
- Relative size / Proportion
- Foreshortening



John Sloan, *South Beach Bathers*, 1907-08

Foreshortening



Andrea Mantegna, *Lamentation Over the Dead Christ*, c. 1475-78

Caravaggio, *Conversion of St. Paul*, c. 1600-01

Using Space to Manipulate Meaning

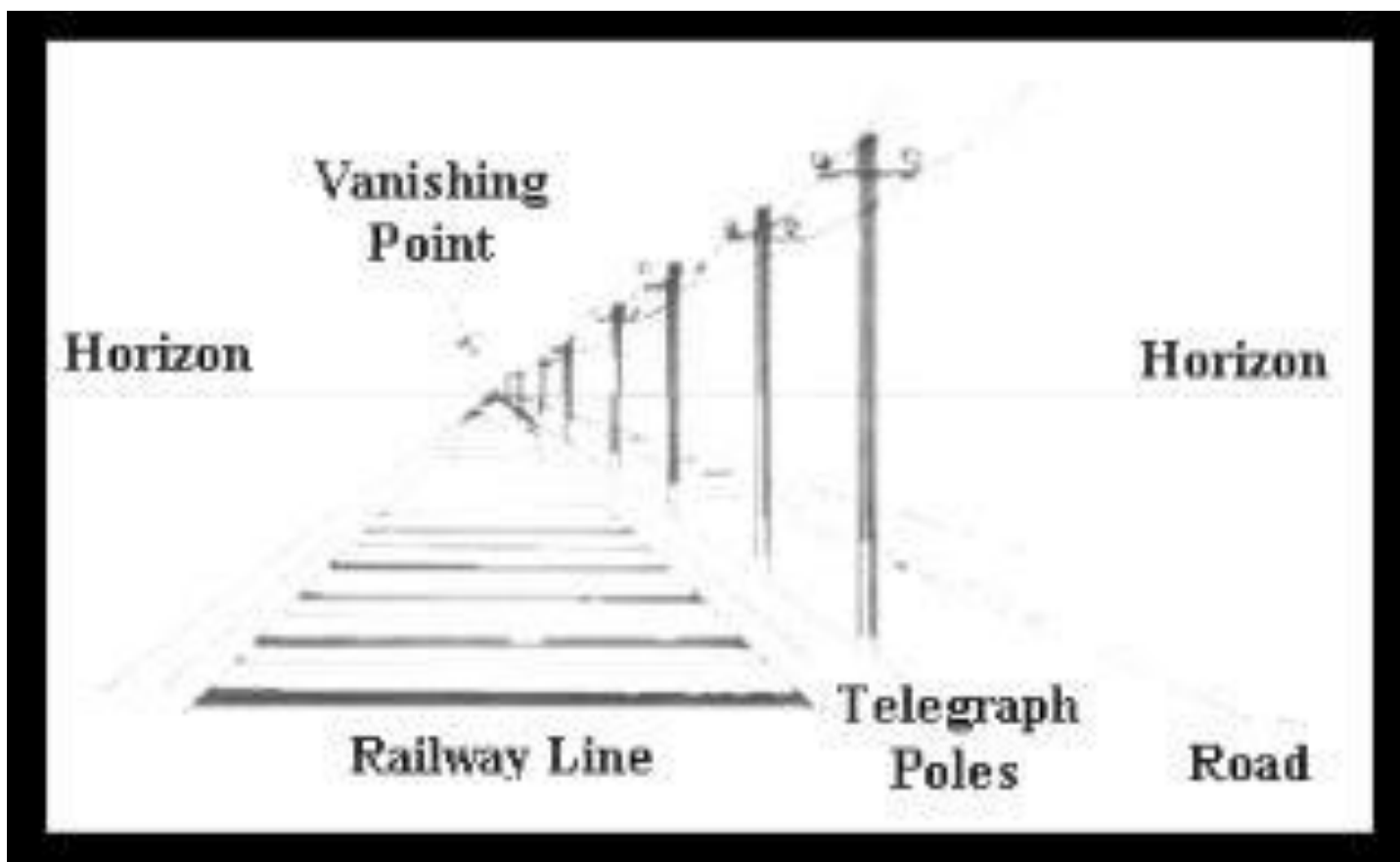
How does this artist use space to impact the meaning of the artwork?



Andrew Wyeth, *Christina's World*, 1948

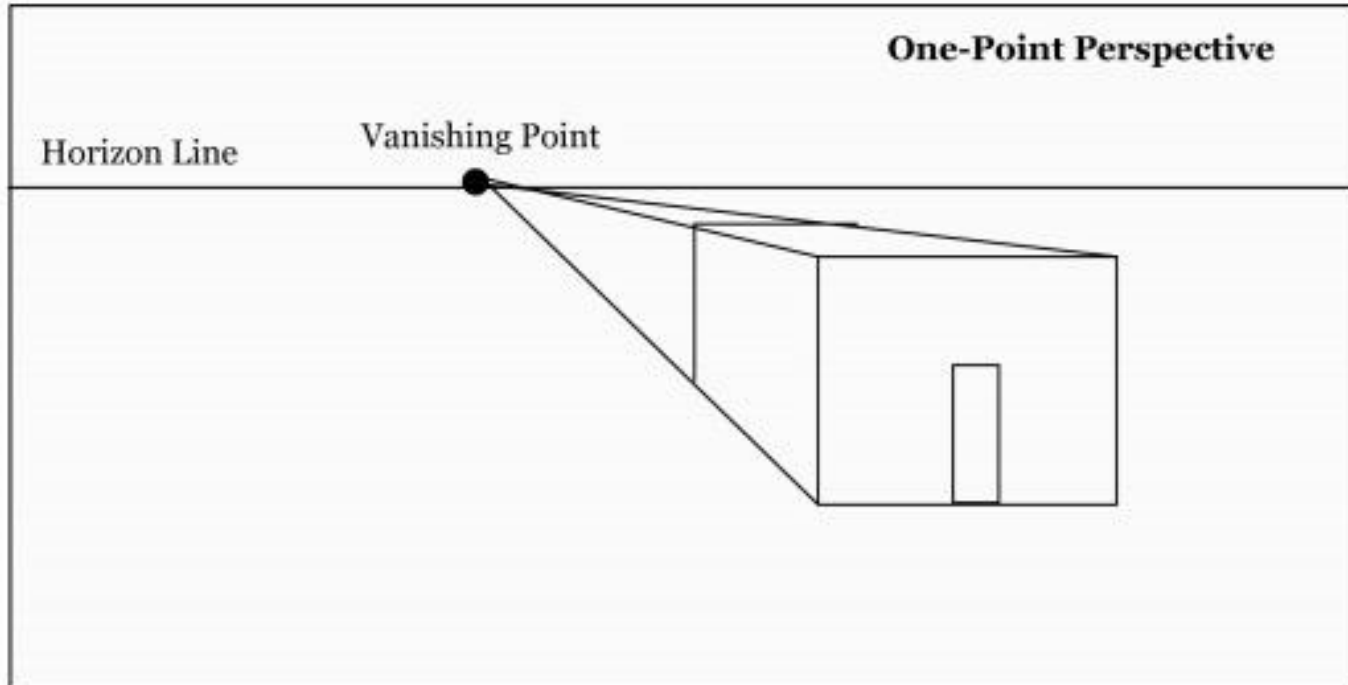
What is linear perspective?

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).

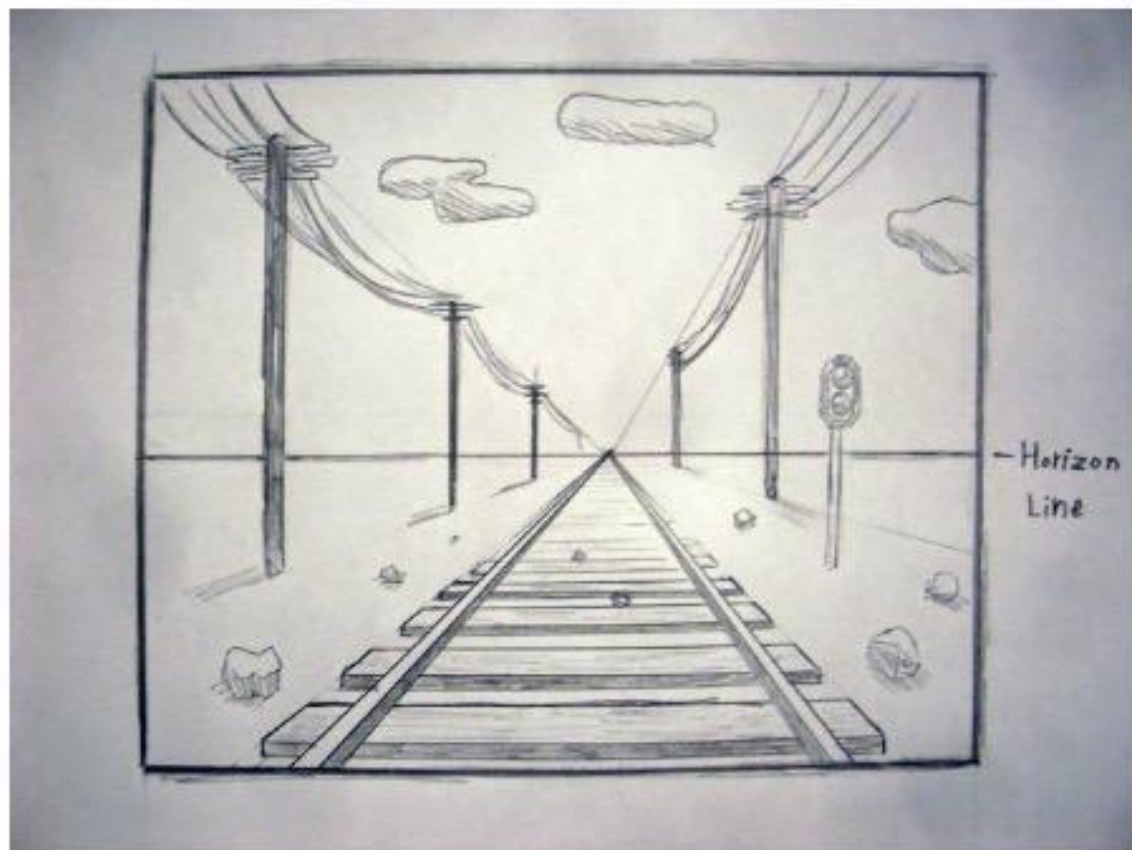


What is linear perspective?

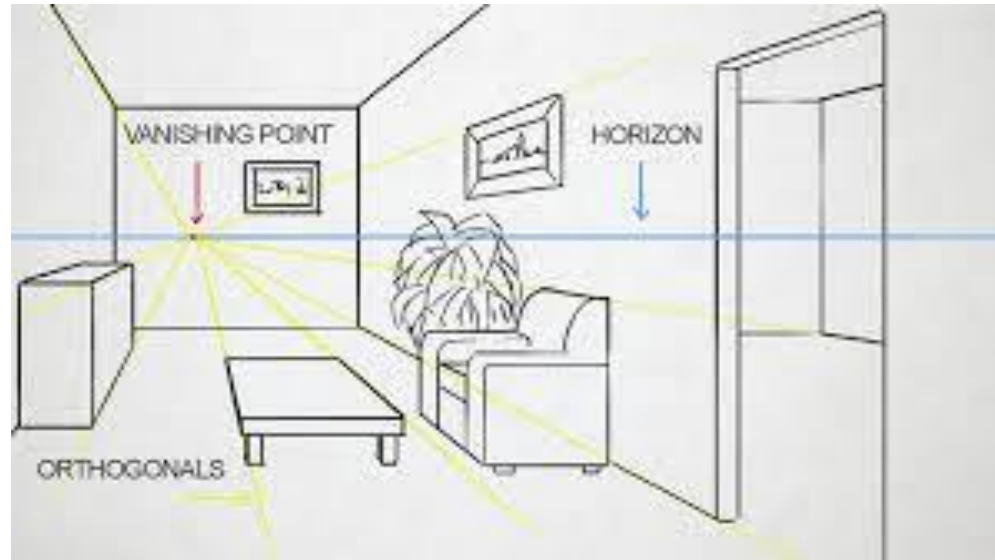
Things that are seen face on, which means you are looking at the front of them directly, are drawn in **one-point perspective** with a single **vanishing point**.



Horizon Line: where the sky meets the ground



One point perspective is a drawing method that shows how things appear to get smaller as they get further away, converging towards a single 'vanishing point' on the horizon line. It is a way of drawing objects upon a flat piece of paper (or other drawing surface) so that they look three-dimensional and realistic.



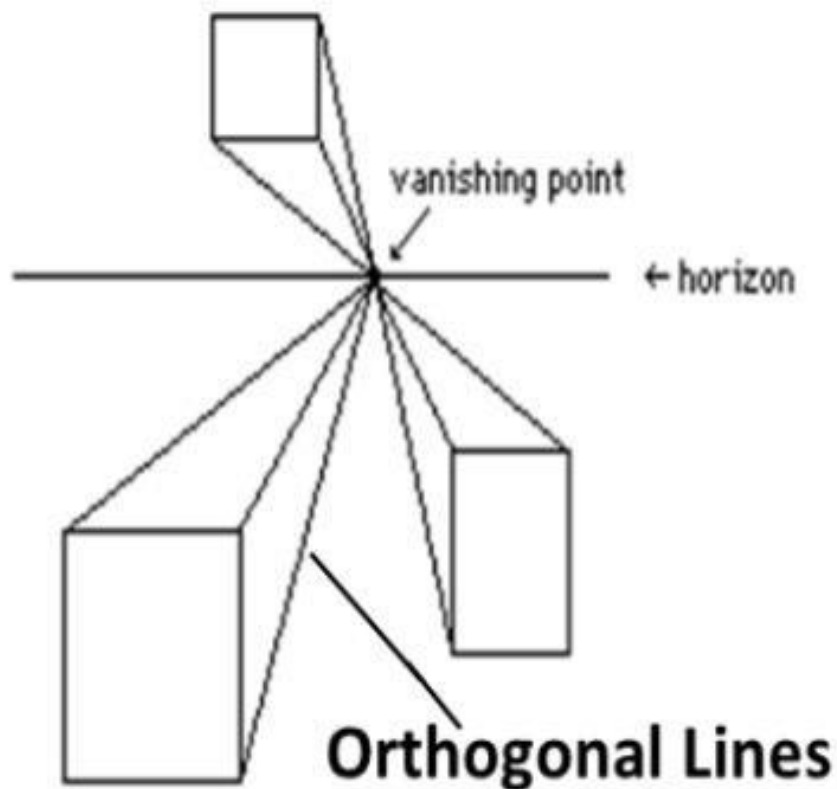
In one point perspective, surfaces that face the viewer appear as their **true shape**, without any distortion. They are drawn using primarily horizontal and vertical lines, as illustrated by the diagram below:



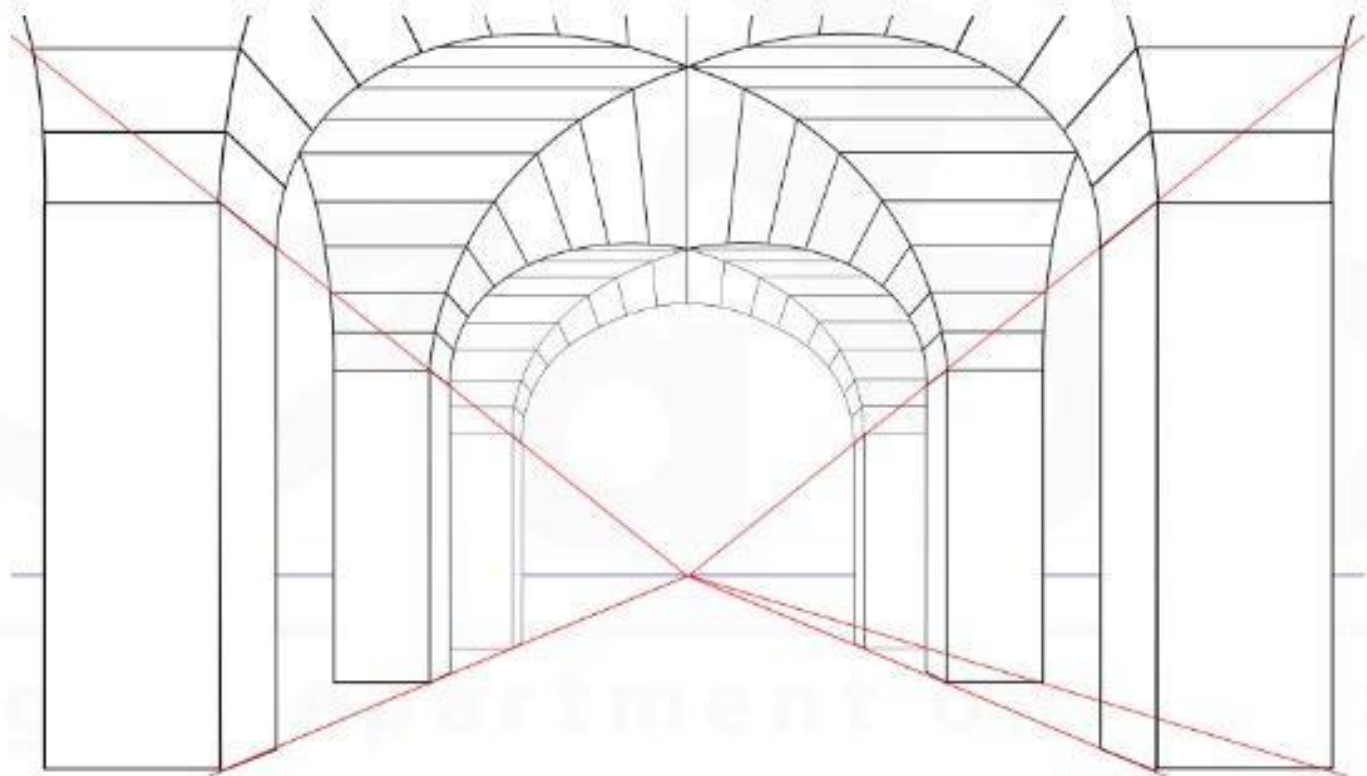
Vanishing Point:

- Is located on the horizon line
- the place where all lines meet or “vanish”

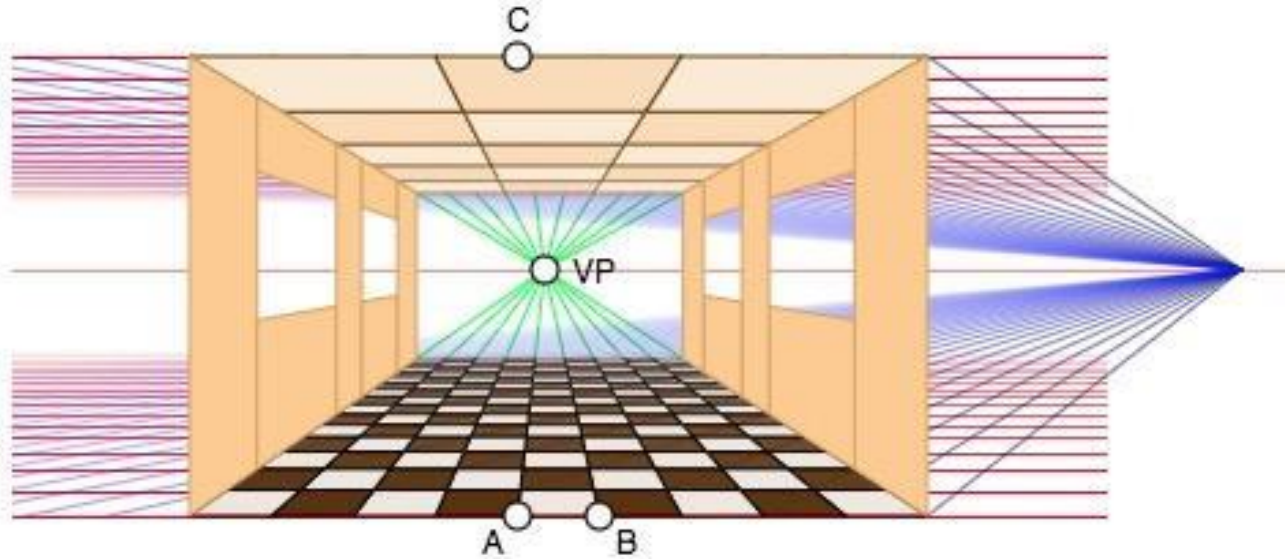
Orthogonal Lines- lines that create the sides of an object in one-point perspective, these lines are drawn to the vanishing point.



Objects appear smaller as the object gets closer to the horizon line.



Click the link to go to the [linear perspective interactive](#) tool.



What is proportion?

Proportion is the principle of art that refers to relative size. Proportion does not refer to overall size, but rather the relationship of the sizes of two or more subjects or elements. In art, the size of an element is referred to as *scale*. For example, a basketball and a baseball are different in scale but share the same in proportion.



Using Proportion to Manipulate Meaning

How does this artist use proportion to impact the meaning of the artwork?



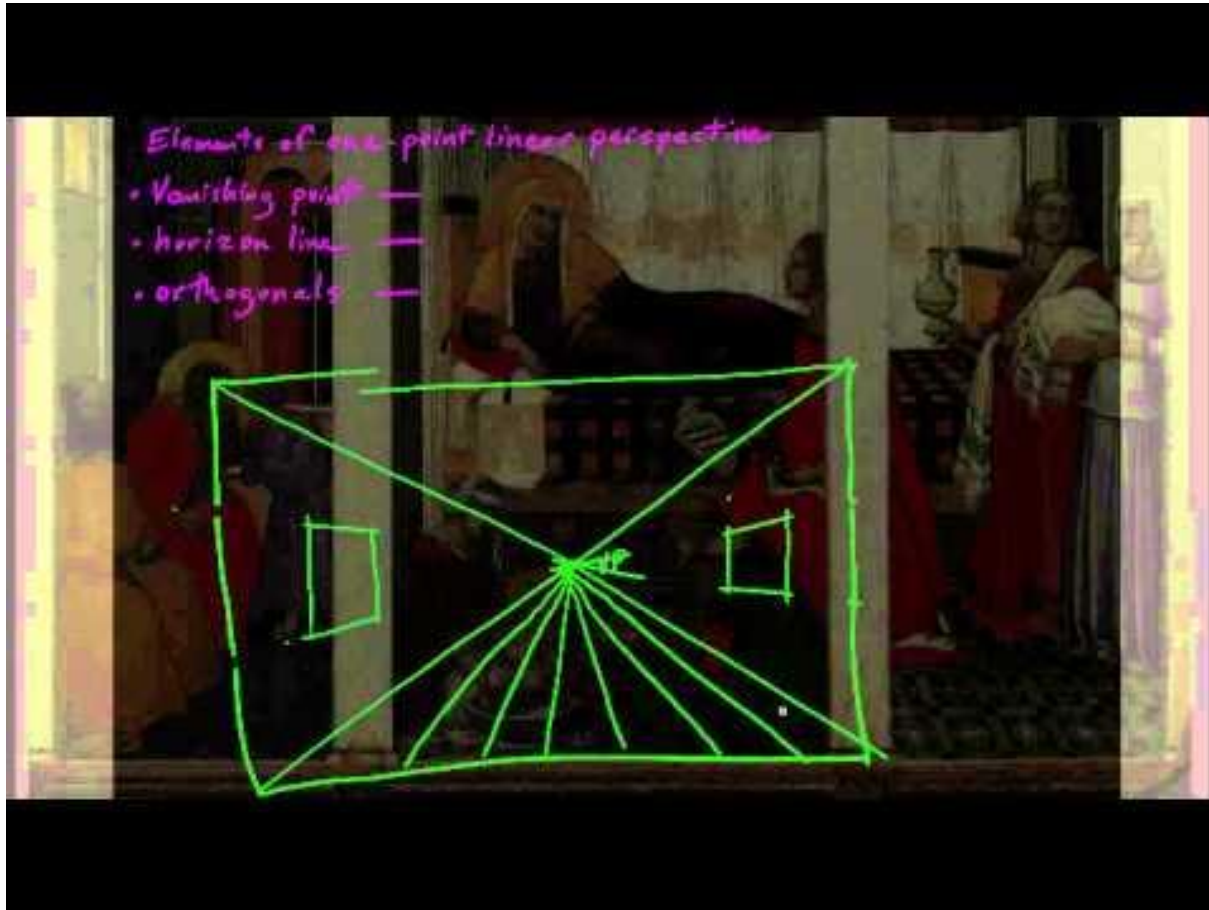
Ben Shahn, We French Workers Warn You..Defeat Means Slavery, Starvation, Death, 1942

One-Point Perspective - Linear Perspective

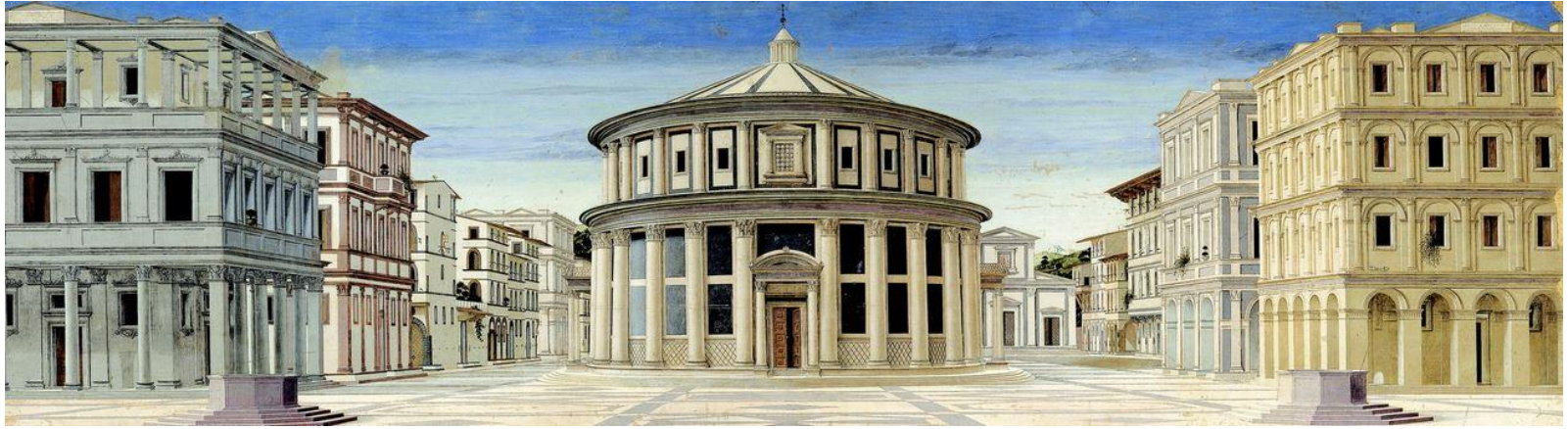


Dorothea Lange, *The Road West, New Mexico*, 1938

How Linear Perspective Works



Linear Perspective Activity #1 (click for link)



1. Use a ruler and marker to trace the compositional lines from the architecture and ground.
1. Describe below your observations of the lines and how they are organized. What do you notice?
1. Why do you think the artist organized the lines in such a way?

Linear Perspective



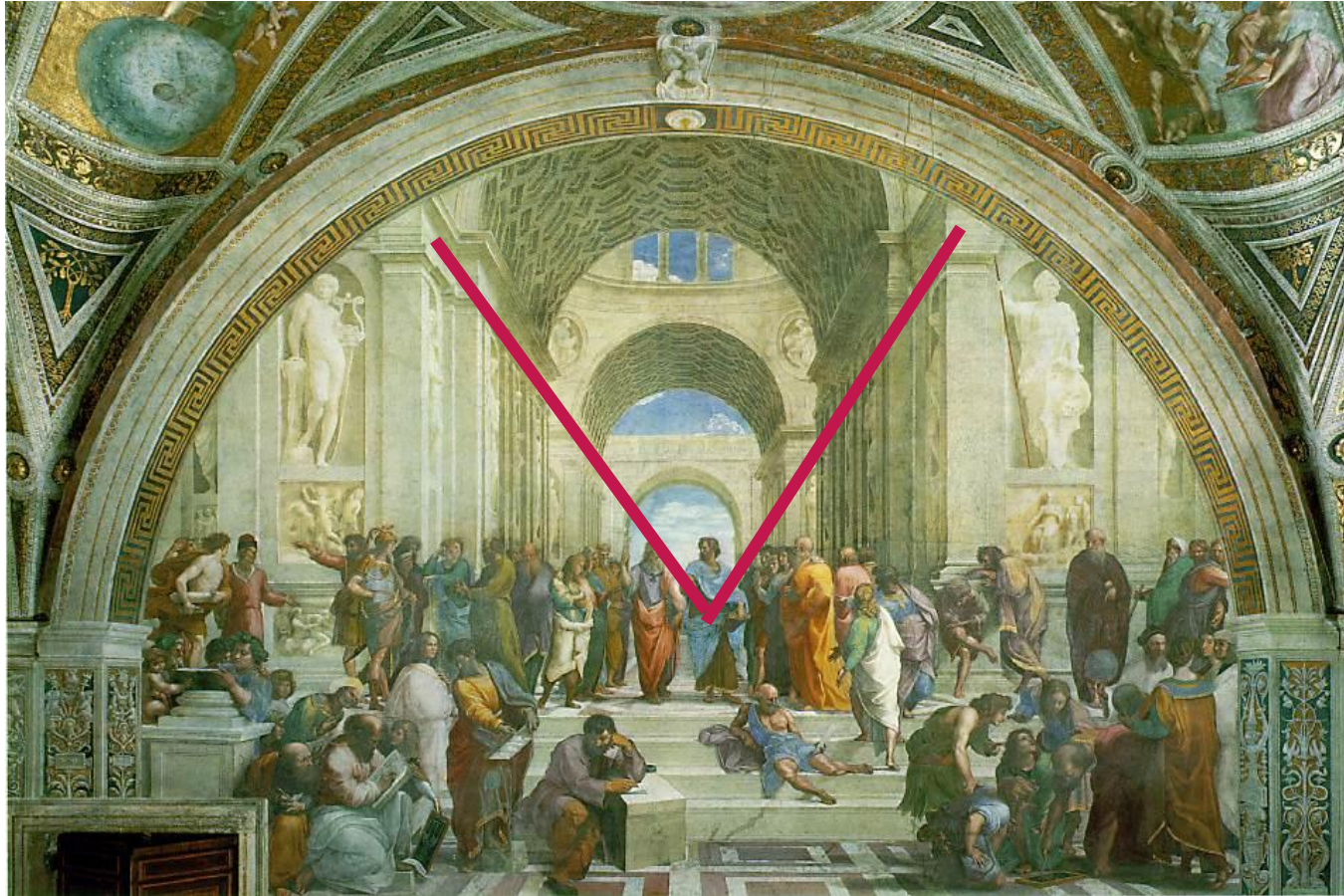
Raphael, *School of Athens*, 1510

Linear Perspective



Raphael, *School of Athens*, 1510

Linear Perspective



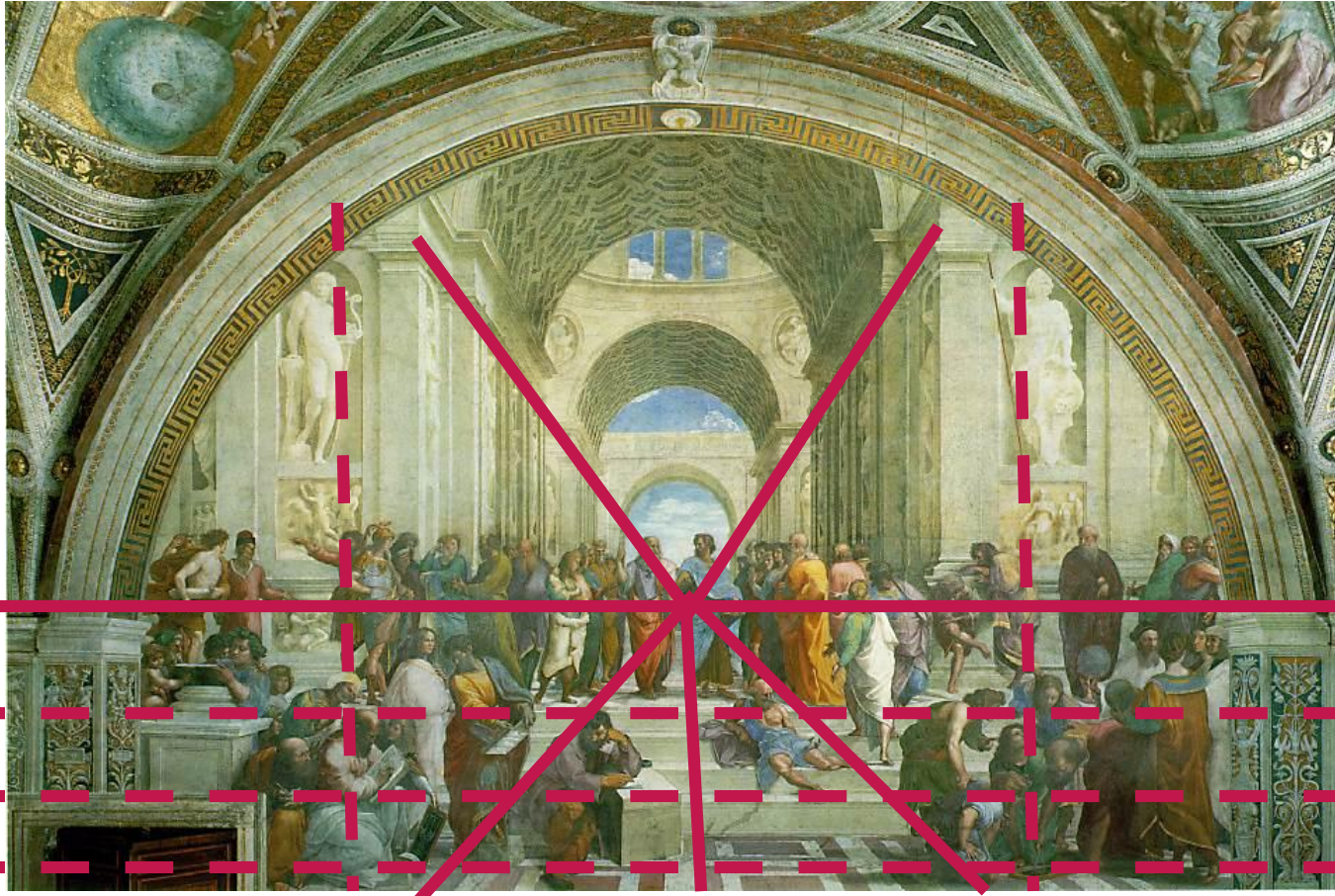
Raphael, *School of Athens*, 1510

Linear Perspective



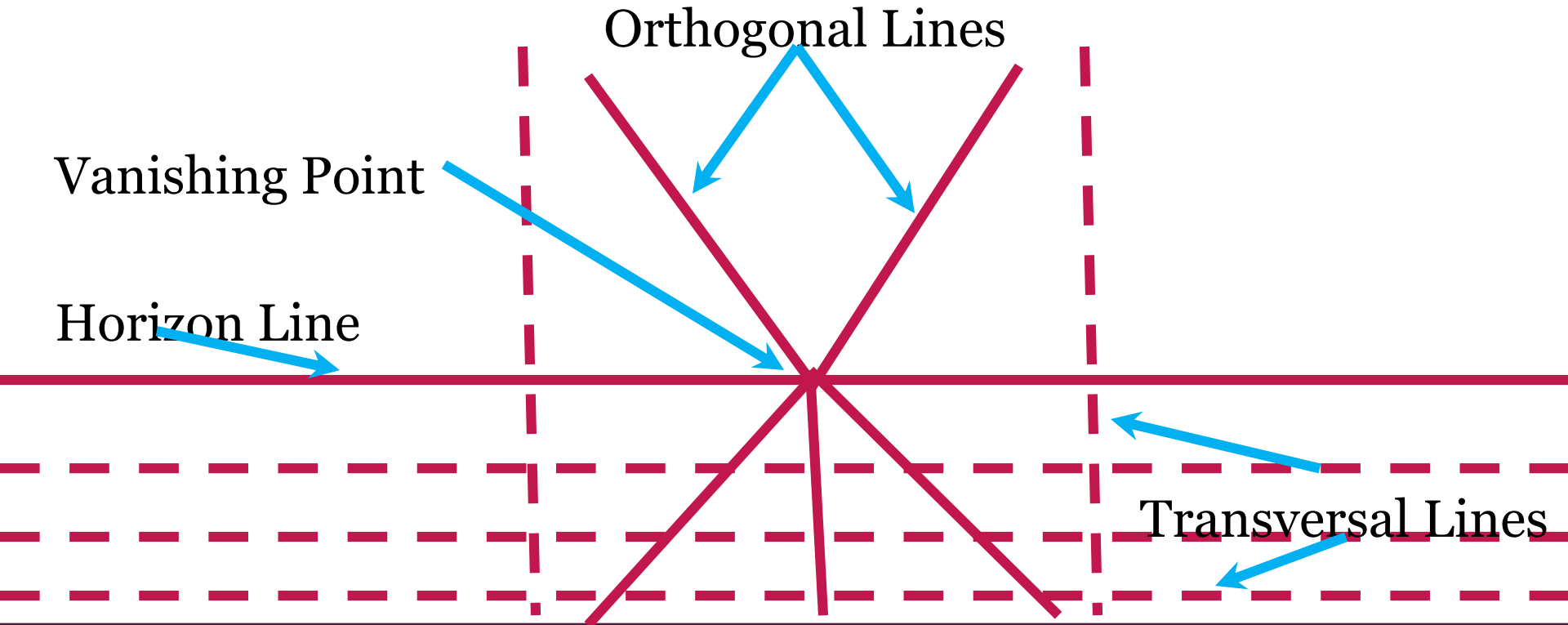
Raphael, *School of Athens*, 1510

Linear Perspective Activity



Raphael, *School of Athens*, 1510

Linear Perspective



Raphael, *School of Athens*, 1510

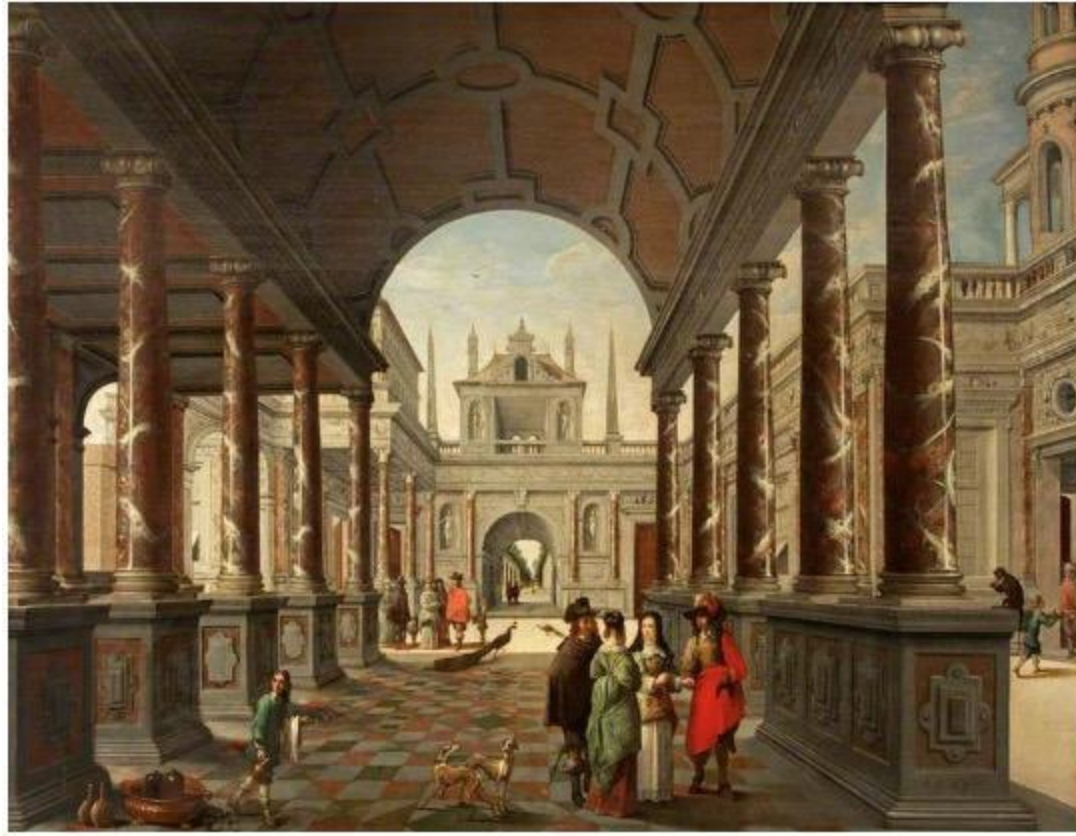
Examples of One-Point Perspective



Examples of One-Point Perspective



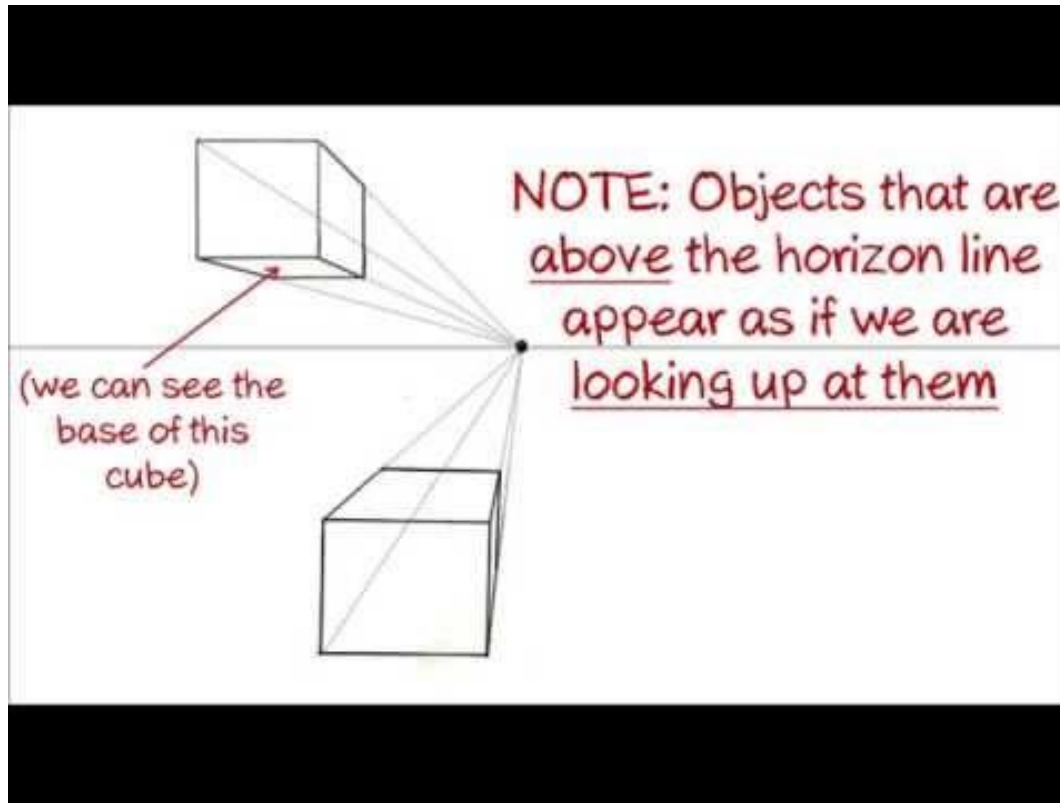
Examples of One-Point Perspective



Examples of One-Point Perspective



Linear Perspective Activity #2



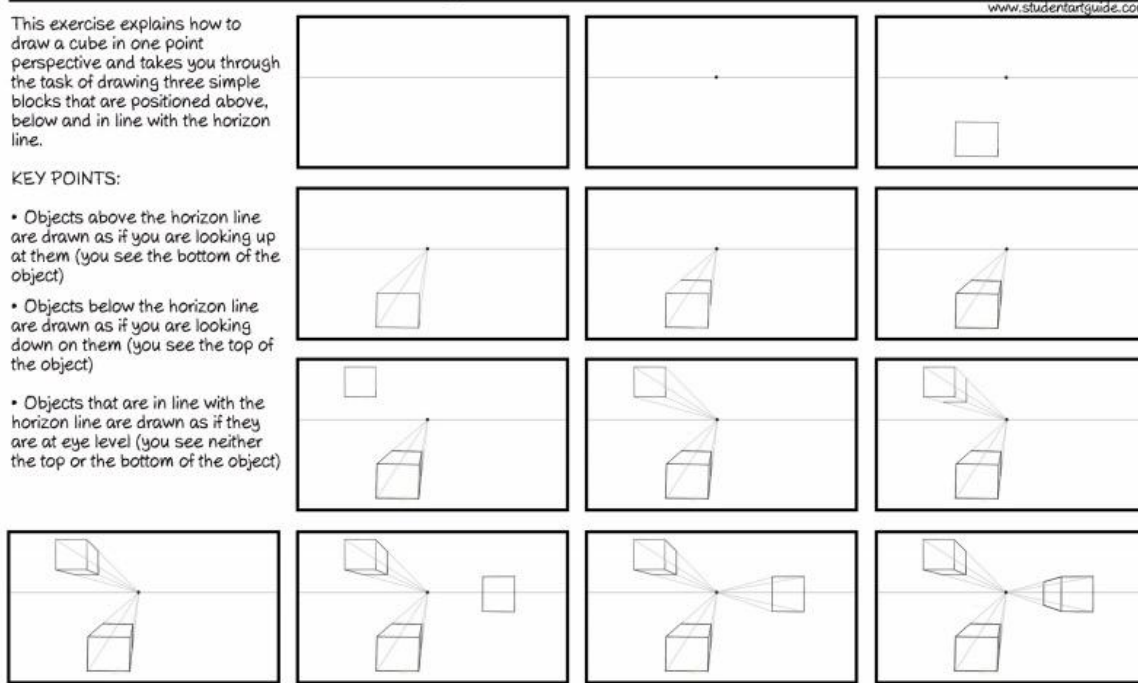
Linear Perspective Activity #3

One Point Perspective Cubes

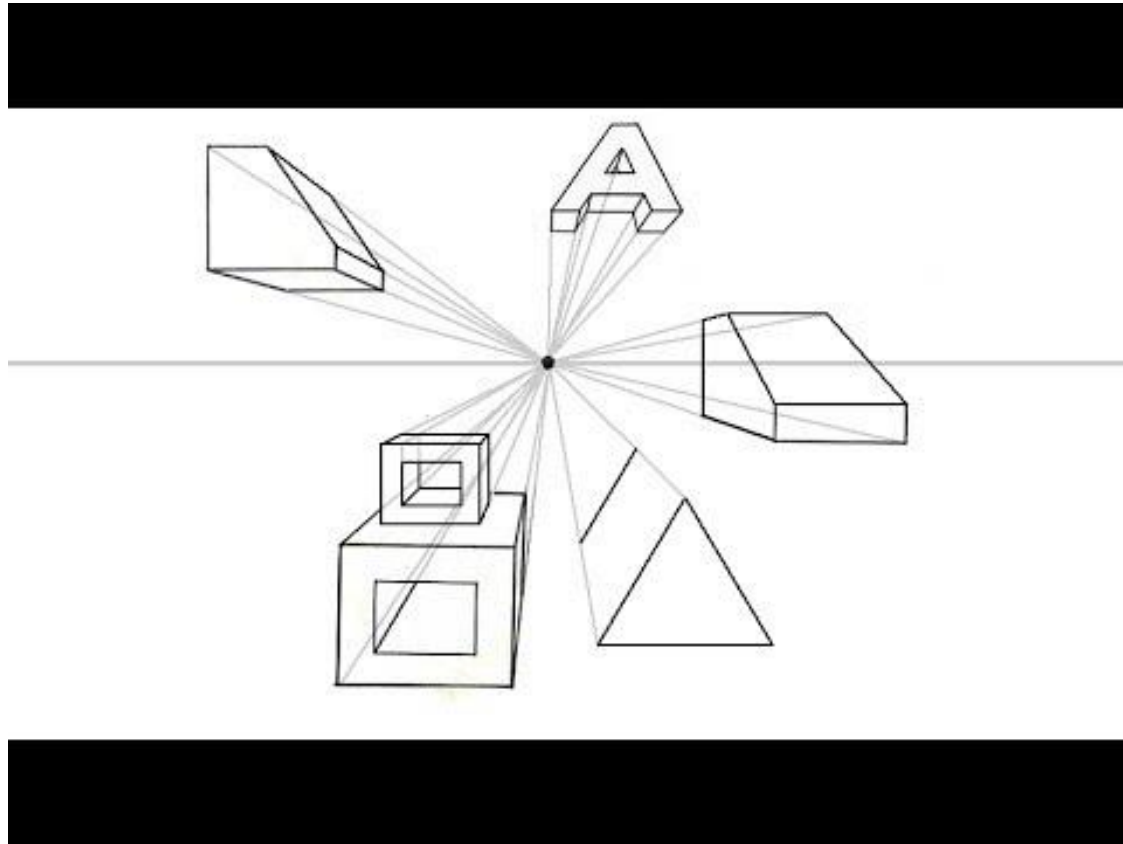
This exercise explains how to draw a cube in one point perspective and takes you through the task of drawing three simple blocks that are positioned above, below and in line with the horizon line.

KEY POINTS:

- Objects above the horizon line are drawn as if you are looking up at them (you see the bottom of the object)
- Objects below the horizon line are drawn as if you are looking down on them (you see the top of the object)
- Objects that are in line with the horizon line are drawn as if they are at eye level (you see neither the top or the bottom of the object)



Stacking Blocks, Cutting Holes, and Adding Angles



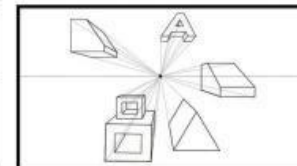
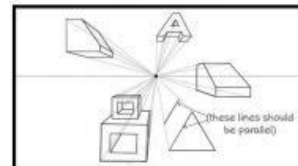
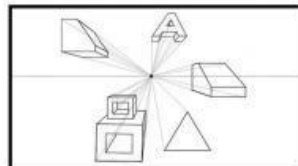
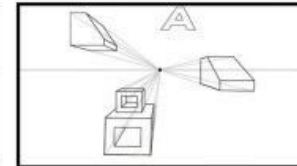
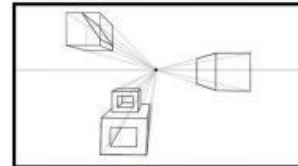
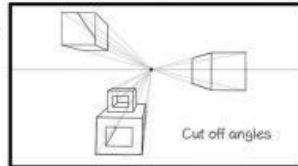
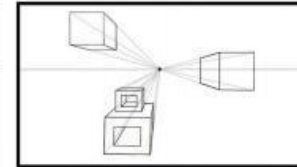
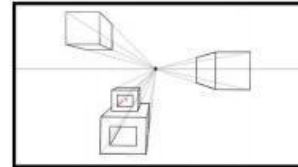
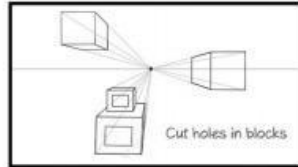
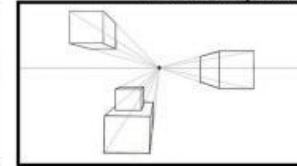
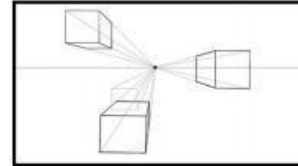
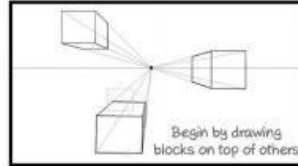
Linear Perspective Activity #4

1 Point Perspective: Complex Forms

This worksheet helps you to move from drawing simple blocks to creating more complex forms, by stacking, cutting holes and adding unusual angles.

TASK:

- Begin by drawing a series of blocks in one point perspective, above and below the vanishing point
- Draw other blocks sitting on top or beside these blocks
- Draw rectangular holes cutting through some of the blocks. Remember you may need to draw construction lines to find where the back edge of the hole will be
- Slice off different edges of the blocks on unusual angles
- In the gaps around the blocks, add in more complicated forms, such as letters and triangular shaped blocks (extension activity)



Using Perspective to Manipulate Meaning

How does this artist use perspective to impact the meaning of the artwork?

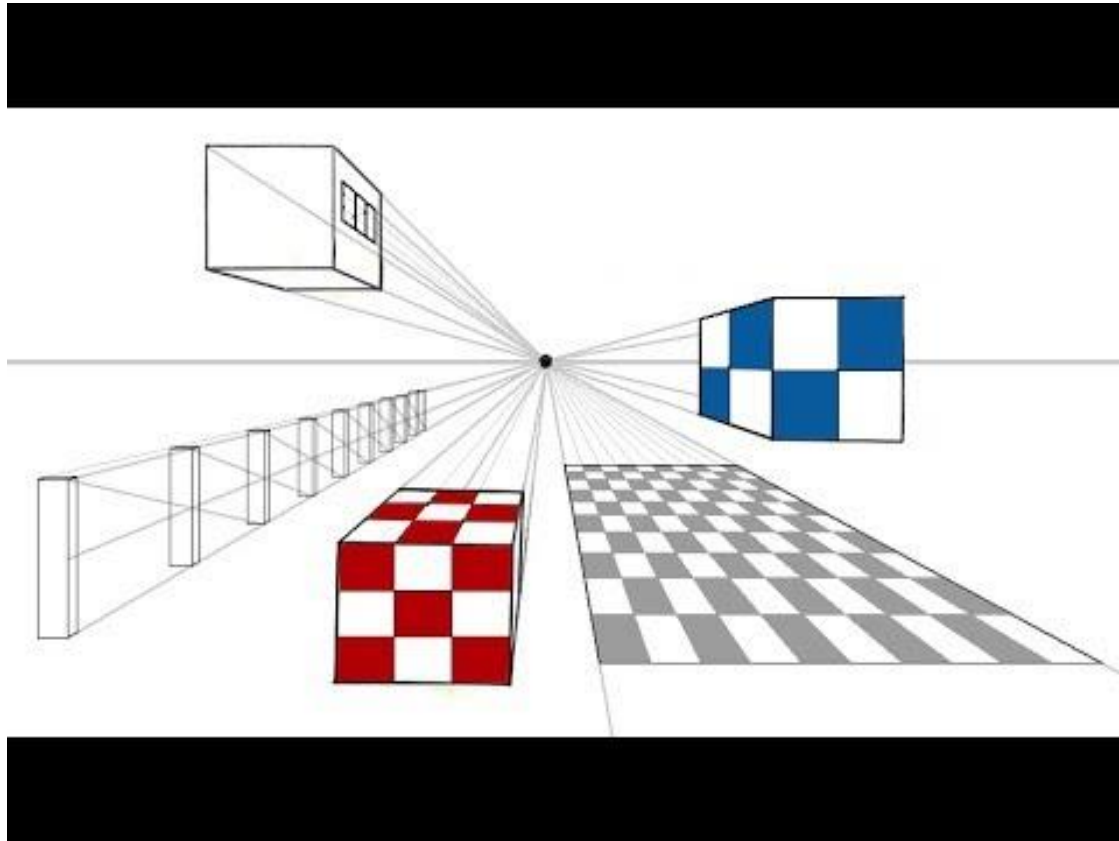


George Tooker, *The Subway*, 1950

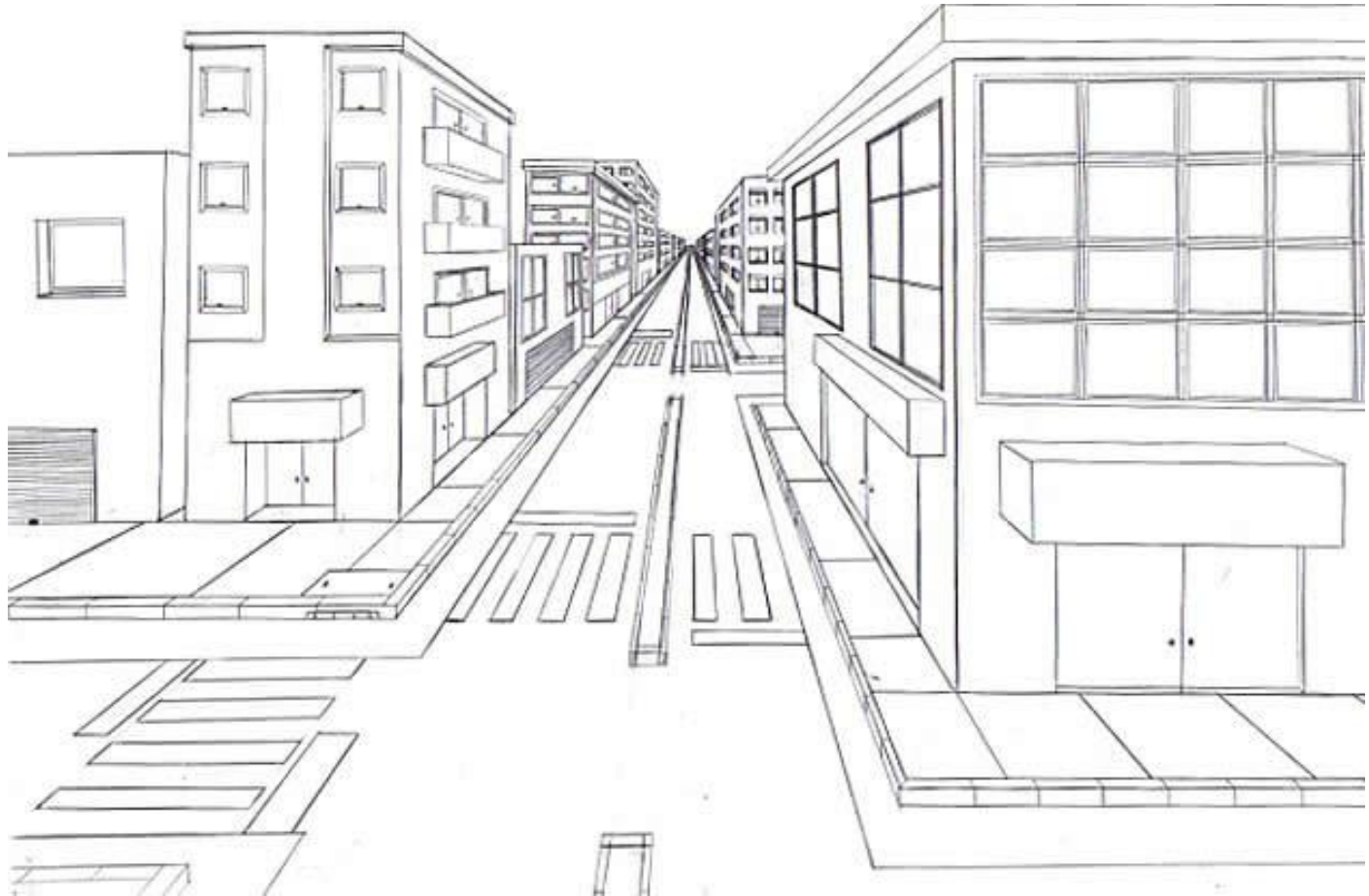
Perspective Block Letters



Finding Centres and Equal Spaces



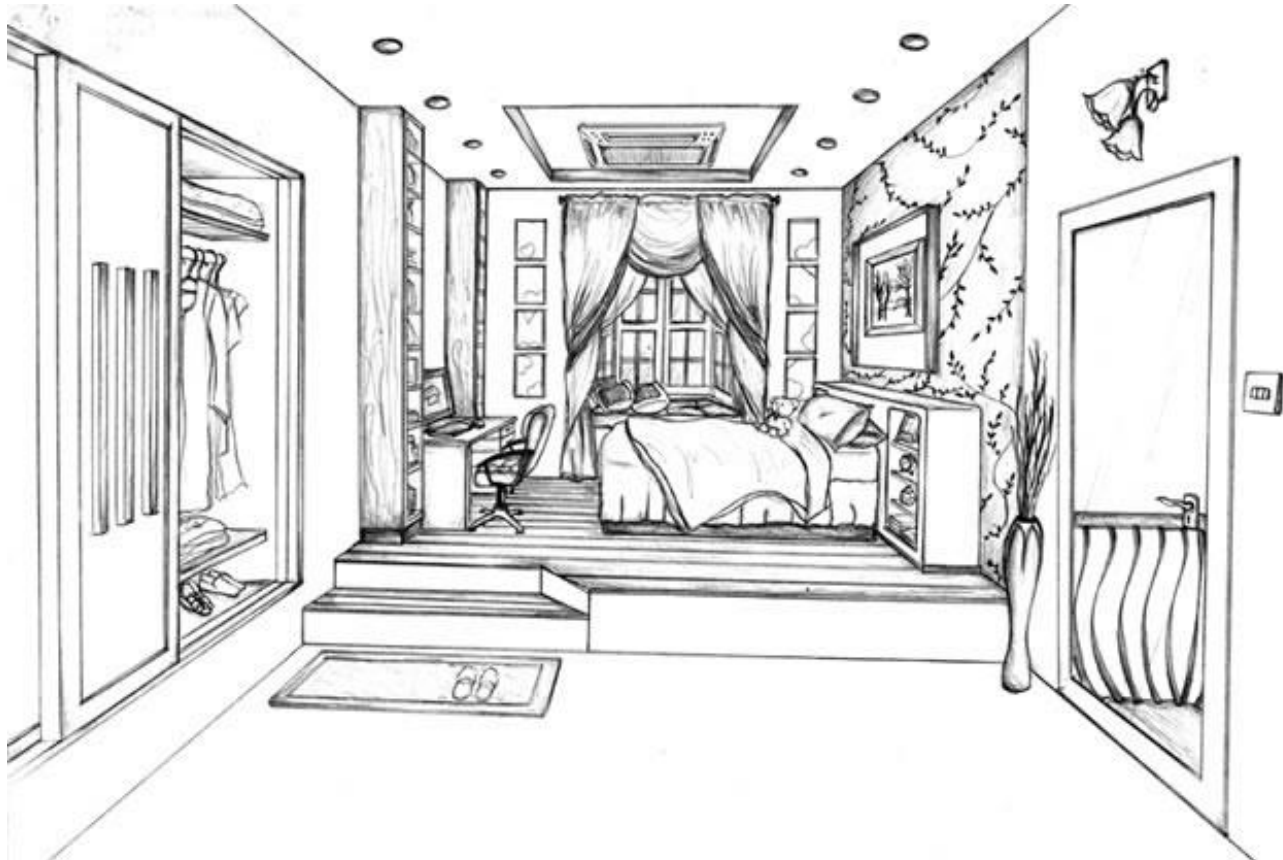
One-Point Perspective Cityscape



One-Point Perspective Room



One-Point Perspective Room



One-Point Perspective Hallway



Atmospheric Perspective is the technique of creating an illusion of depth by depicting distant objects as paler, less detailed, and usually bluer than near objects.



Vocabulary

- **Line** - is a mark with greater length than width. Lines can be horizontal, vertical, or diagonal; straight or curved; thick or thin.
- **Shape** - is a closed line. Shapes can be geometric, like squares and circles; or organic, like free-form or natural shapes. Shapes are flat and can express length and width.
- **Form** - are three-dimensional shapes expressing length, width, and depth. Balls, cylinders, boxes, and pyramids are forms.
- **Parallel** - two lines that never intersect
- **Converge** - tend to meet at a point.
- **Horizon Line** - a horizontal line that runs across the paper or canvas to represent the viewer's eye level, or delineate where the sky meets the ground. It should rarely be in the center of the composition, but ideally placed about one-third of the way up or down the piece.

Vocabulary

- **Vanishing Point** - The point at which receding parallel lines viewed in perspective appear to converge.
- **Orthogonal Lines** - the diagonal **lines** that can be drawn along receding parallel **lines** (or rows of objects) to the vanishing point.
- **Space** - is the area between and around objects. The space around objects is often called negative space; negative space has shape. Space can also refer to the feeling of depth. Real space is three-dimensional; in visual art, when we create the feeling or illusion of depth, we call it space.
- **Proportion** - is the feeling of unity created when all parts (sizes, amounts, or number) relate well with each other.
- **Perspective** - an **art** technique for creating an illusion of three-dimensions (depth and space) on a two-dimensional (flat) surface.

Vocabulary

- **Linear Perspective** - a system of creating an illusion of depth on a flat surface.
- **Aerial Perspective** - the technique of creating an illusion of depth by depicting distant objects as paler, less detailed, and usually bluer than near objects
- **Foreshortening** - the technique of depicting an object or human body in a picture so as to produce an illusion of projection or extension in space.
- **Overlap** - extend over so as to cover partly