PFS 28-13 04/14/15 _____

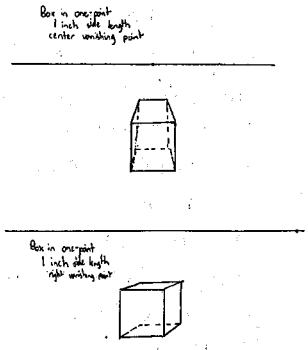
Perspective Drawing

Perspective drawing first appeared in the Renaissance, where it was used originally in the art of the period. It is an interesting method of illustration, with several different possible variations that can allow for a more realistic drawing. Geometry is deeply integrated with perspective drawing, and it utilizes parallel and perpendicular lines. In this POW, we will learn about and explore these subjects.

One Point Perspective Drawing

One-point perspective is when you have one vanishing point. Practice drawing a box in one point perspective using these steps.

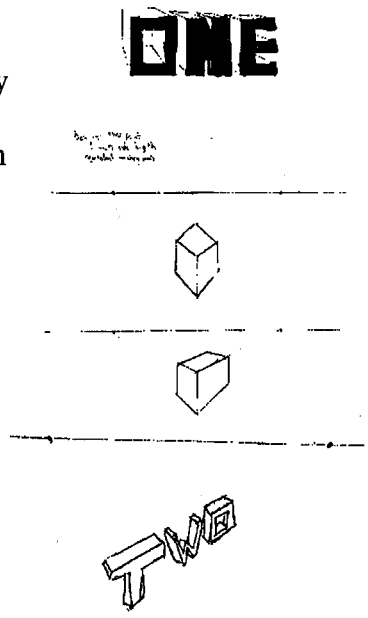
1. Draw a square and then draw a line above it parallel to the top of the square. This is your horizon line. Pick a point on it. This will be called your vanishing point.
2. Draw light lines from the corners of the square to the vanishing point.
3. Draw another line parallel to the horizon line to be the back of your box.
4. Draw your own box with a side length of one inch in one-point perspective.
5. Try positioning the box on different sides of the vanishing point. What do you notice?
6. Draw a word in one-point perspective. Shade in the areas between lines to the vanishing point to make it look three dimensional. What do you notice about how the word looks?
7. Make a drawing in one-point perspective. What do you think about one-point perspective? Does it provide for a realistic drawing?



Two Point Perspective Drawing

Two-point perspective is when you have two vanishing points: One to show the angle of the object(s), the other for the depth.

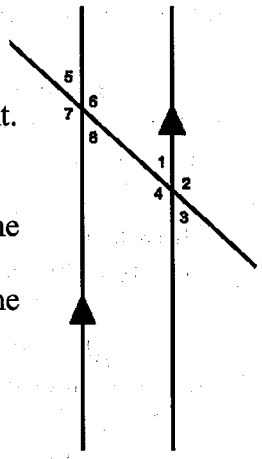
8. First draw your horizon line. Then pick two points that are a good distance away from each other. These will be your vanishing points (*two point* perspective).
9. Draw a vertical line segment below the horizon line and connect its ends to each vanishing point. Between these lines draw two additional vertical lines to make the sides of your cube. Shade the lines from the sides to the center of the cube darker, as these will be part of the final drawing.
10. Next, draw a line from the top of the vertical sides to the opposite vanishing point and shade them darker up to the point that they intersect. This will be the top of your figure.
11. Erase all lines to the vanishing points and shade the figure (optional)
12. Draw your own box in two-point perspective. Change its position in relation to the vanishing points. What do you notice?
13. Draw a word in two-point perspective. Make sure you shade the correct sides.



14. What is different between one-point and two-point perspective? Compare and contrast the two.
15. Learn about how perspective drawing was used in the Renaissance. When did it evolve? How was it used? Research.

(Extension) Parallel and Perpendicular Lines

Basic Concepts:
Two or more lines in a plane are parallel if they could continue infinitely and never intersect.
Two lines are perpendicular if they form right angles.
A transversal is a line that crosses two or more *other* lines.



16. Draw two parallel lines crossed by a transversal. Label the angles one through eight. Measure the angles. What do you notice?
17. Draw a pair of perpendicular lines. Label the angles one through four.
18. Draw problem 16 on a coordinate plane. (not vertical lines) Measure the slope of the lines. What do you notice?
19. Draw problem 17 on a coordinate plane. (not vertical lines) Measure the slope of the lines. What do you notice?
20. Take your graph from problem 18. Measure one of the angles at either intersection with your protractor. Can you find the measures of the other angles without using the protractor?
21. Take your graph from problem 19. Measure one of the angles with your protractor. Can you find the measures of the other angles without using the protractor? Is there a rule about perpendicular lines?
22. What relationships can you find between the angles? Is there a pattern?
23. Have as much fun as possible.

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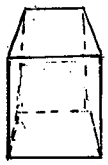
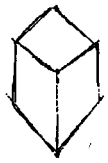
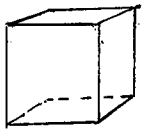
Box in one-point
1 inch side length
center vanishing point

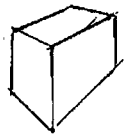


Box in two-point
1-inch side length
equidistant vanishing points



Box in one-point
1 inch side length
right vanishing point





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