Reading Materials

Basic Artwork Overview

Some people have natural artistic abilities, while others have to develop artistic talent. If you have a high aptitude for art, a career in creating artwork and graphics for the video game industry may be a path to consider. Both 2D and 3D artwork is used throughout the video game industry.

In the early days of video games, all artwork was two dimensional and basic. This type of art was often called *pixel art* because images were created by assigning a specific color to each pixel of a composite image. However, this is just a term used to describe a basic form of raster artwork. **Raster artwork** is any image created by specifying the color of each element (pixel) in the image. Another type of two-dimensional artwork is vector art. In **raster artwork,** the elements of the image are defined by mathematical equations. In other words, a line is not made up of dots, rather it is defined by a mathematical equation. Some early video games displayed raster artwork, but now raster artwork may be used to create the initial image, which is then translated into a raster image for display in the video game. Two-dimensional artwork can be used to simulate three-dimensional artwork, but to create true three-dimensional images requires 3D modeling. However, even the images created from 3D models are raster images, which are then displayed in the video game.

While an extensive study of art is required to provide a detailed understanding of all the principles of art and design, a basic study of shapes will help even a beginner create a sprite that looks similar to a real object. Vector art is a great place for a beginning game artist to start. It is easy to apply the basics of shapes, lines, and shadows in vector artwork.

The first art concept you need to master is shape. **Shape** is the outer form of an object. In most cases the shape is a combination of primitives. **Primitives** are regular shapes like circles, rectangles, and triangles that are used to create more complex shapes. If you a look at an object like the racecar shown in **Figure 1,** the primitives that make up the basic shape components of the car can be identified.
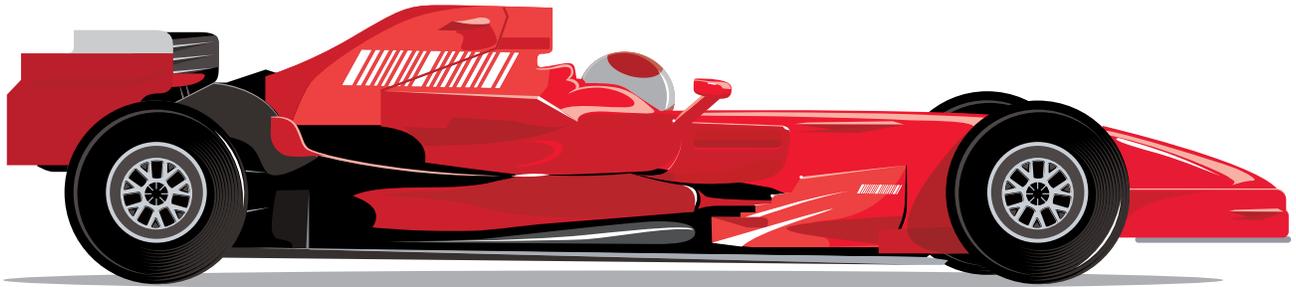
By combining primitives, you can easily create the basic shape of most any object. Initially the idea is not to make an exact or refined copy, but to assemble the largest parts with primitives. Later, each primitive can be refined and smoothed to make the object more realistic.

Part of assembling primitives to create an image is layering the primitives. **Layering** is positioning an object (primitive) in front of or behind other objects in a stack. Most software automatically places newly created objects on top of the object stack. So if a newly drawn object is on layer 7, it would need to be moved backward four times to place it on layer 3 in the object stack. Arrange, order, stack, and layer are typical names for the layering function.

Line art is artwork created as lines, and shading may or may not be applied. In **Figure 2,** the character is composed of the outline of each component used to create the entire figure. After the lines were created, shading was added to make the image more realistic.

Organic and inorganic lines are drawn to create the image in line art. **Organic shapes** are natural in appearance, usually flowing or curving. **Inorganic shapes** have straight lines and right angles and are often found in manufactured objects. Primitives like ovals, curves, and cylinders are in the organic category, while rectangles and triangles are in the inorganic category.

Name: _____
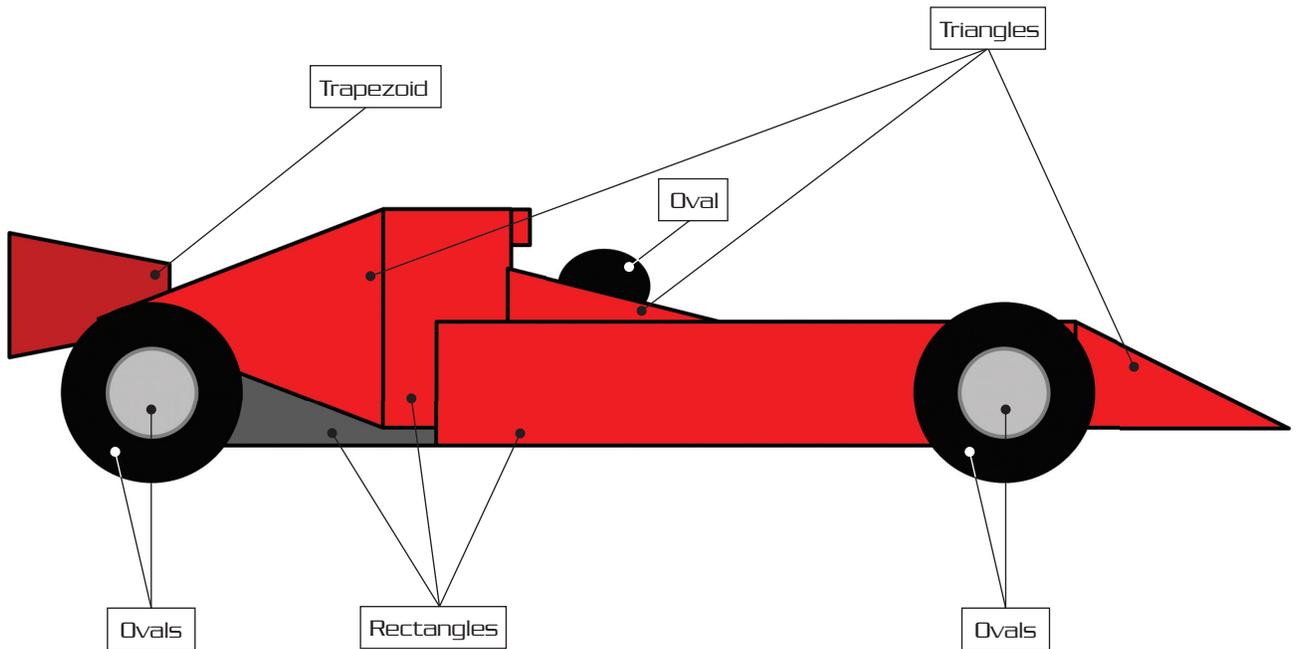

Senen Gal/Shutterstock Co. Inc.

Triangles

Trapezoid

Oval

Ovals

Rectangles

Ovals

Figure 1

Bortel Pavel-Pavelmidi/Shutterstock.com.

Figure 2