Sphere

Value: Five Elements of Shading

When rendering a sphere, each of the five elements will correspond with a shade on a value scale.

The paint swatches beneath the sphere correspond with the five elements of shading. Use these different tones as a guide.

1. Full Light: This is the white highlight area, where the light source is hitting the sphere at full strength.

2. Reflected Light: This is a light gray. Reflected light is always found along the edge of an object and separates the darkness of the shadow edge from the darkness of the cast shadow.

3. Halftone: This is a medium gray. It’s the area of the sphere that’s in neither direct light nor shadow.

4. Shadow Edge: This dark gray is not at the very edge of the object. It is opposite the light source where the sphere curves away from you.

5. Cast Shadow: This is the darkest tone on your drawing. It is always opposite the light source. In the case of the sphere, it is underneath, where the sphere meets the surface. This area is void of light because as the sphere protrudes, it blocks light and casts a shadow.
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1 Mix Your Colors
Value #5 is pure Black. Mix a very small amount of Titanium White with Black until you match the #4 dark gray. When you are happy with your color, take some of the dark gray, and mix a little more Titanium White into that to create the #3 halftone. Add some more white to that to create the #2 light gray. Value #1 is pure Titanium White.

2 Draw the Circle
With a mechanical pencil, trace a perfect circle onto your canvas paper. With a straightedge, create a border box around the sphere, then draw a horizontal line behind the sphere. This will represent a table top and give the illusion of a background area.
3 Paint the Base Colors
With a dark gray that matches the #4 on your value scale, base in the table top and go around the curved surface easily. This deep gray will give us a foundation to build the rest of the painting on.

To paint the sphere, begin with the darkest area first. In this case, it is under the sphere in the cast shadow. Use the Black full strength (#5 on the value scale) to create the cast shadow over the dark gray.

fill in the entire sphere with a medium gray mixture. This should match the #3 on the value scale. Be sure to completely fill in the sphere so there is no canvas showing through.

4 The Awkward Stage
With the #4 dark gray mixture, apply the shadow edge of the sphere while the medium gray paint is still wet. Blend the tones together. Make sure the shadow is parallel to the edge of the sphere, allowing the two colors to blend. Allow the dark gray to show along the edge of the sphere, creating the reflected light.

While the paint is still wet, add some of the medium gray mixture above the dark gray, and blend the two using long rounded strokes that follow the contours of the sphere to create the halftone area. Blend until the tonal transitions are smooth.

5 Finish
With Titanium White, apply the full light area and blend it into the halftone. To make the light area stand out, apply some of the medium gray mixture behind the sphere to create the background. The light edge of the sphere contrasts against it.

This is not as easy as it looks, so please do not get frustrated. Remember, you can go over things as many times as you want. I often will add some paint and softly reblend into the paint that is already there. I can spend a lot of time trying to get it just right. This is all part of the challenge!
Create A Sphere Using Complimentary Colours:

CHOOSE 1 of the 4 below and create a Complimentary Colour Sphere

For spheres in color, the main color of your sphere is a #3 on the value scale. Mix the lighter values (#1 and #2) by adding Titanium White. Mix the darker values (#4 and #5) by adding the complement of the main color.

Complements produce a pleasing grayed-down color, perfect for painting shadows.

1. Cadmium Red Light
2. Cadmium Red Light mixed with Titanium White
3. Cadmium Red Light mixed with green (Prussian Blue + Cadmium Yellow Medium)
4. Green (Prussian Blue + Cadmium Yellow Medium)
5. Green mixed with Titanium White
6. Green mixed with Cadmium Red Light

1. Cadmium Yellow Medium
2. Cadmium Yellow Medium mixed with Titanium White
3. Cadmium Yellow Medium mixed with violet (Alizarin Crimson + Prussian Blue)
4. Prussian Blue
5. Prussian Blue mixed with titanium white
6. Prussian Blue mixed with orange (Cadmium Yellow Medium + Cadmium Red Light)