

Seeing Geometry through Art

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Synopsis

Within this unit students will explore art as an example of how understanding basic facts can help us with complex problem solving. Through art, geometry will become more relevant and exciting for students. Instead of studying two lines cut by a transversal, students will draw using perspective and vanishing points. Students will analyze parallelism and how we use it to represent three-dimensional figures in two-dimensional space. Students will then look at optical illusions and discover how the laws of geometry can help us prove that what we see is real or prove that our eyes can deceive us. Again, students will use the laws of geometry to analyze these works of art. Students will also explore art as a compilation of basic geometric figures and even delve into Cubism and the amazing impact it had on the world. Students will make simple sketches that are naturally compiled of numerous geometric terms and concepts. Cubism will allow us to cross over from just 2-dimensional and 3-dimensional space, and be introduced to 4-dimensional space. We will also study symmetries with triangle multiplication tables and again after drawing Celtic knots. At the end of the unit, students will have a common and contextual thread connecting their entire curriculum. They will be more interested in the topics and therefore, more invested in learning.