

CAMT 2009

Using the Lens of the Visual Arts and Children's Literature to Explore PreK-2 Mathematics

Robin A. Ward, Ph.D.
Clinical Assistant Professor of Mathematics
Rice University School Mathematics Project
raward@rice.edu

7 Elements of Art

- Line
- Shape (2D)
- Form (3D)
- Space (perspective)
- Color
- Value
- Texture

Jackson Pollock

Number 8 (1949)
Number 11 (1952)

Jackson Pollock (Getting to Know the World's Greatest Artists Series) by Mike Venezia
Action Jackson by Jan Greenberg and Sandra Johnson
Art by Patrick McDonnell
Ish by Peter Reynolds

Make Your Own Jackson Pollock
<http://www.tate.org.uk/imap/pages/animated/cutout/matisse/snail.htm>

Roy Lichtenstein

Mustard on White (1963)
Girl with Hair Ribbon (1965)
Explosion (1965-66)
Interior with Skyline (n.d.)
Modern Painting of Sun Rays (1967)

Roy Lichtenstein (Getting to Know the World's Greatest Artists Series) by Mike Venezia
The Dot by Peter Reynolds
A Million Dots by Andrew Clements
Lines by Philip Yenawine
Follow the Line by Laura Ljungkvist
When a Line Bends...A Shape Begins by Rhonda Gowler Greene

Georges Seurat

Sunday Afternoon on the Island of La Grande Jatte (1884-86)
The Side Show (1888)
Young Woman Powdering Herself (1893)

Georges Seurat (Getting to Know the World's Greatest Artists Series) by Mike Venezia
Katie's Sunday Afternoon by James Mayhew

Pointillism Practice Page
<http://www.epcomm.com/center/point/point.htm>

Henri Matisse

Woman in a Purple Coat (1937)
The Family of the Artist (1911)
La Fougere Noire (1948)
The Snail (1953)

Henri Matisse (Getting to Know the World's Greatest Artists Series) by Mike Venezia
Henri Matisse: Drawing with Scissors (Smart About Art Series) by K. Johnson & J. O'Connor
Matisse: The King of Color by Laurence Anholt

CAMT 2009

Pattern Fish by Trudy Harris
Pattern Bugs by Trudy Harris
Lots and Lots of Zebra Stripes by Stephen Swinburne
Patterns in Peru: An Adventure in Patterning by Cindy Neuschwander
C D B ! by William Steig
Spirals, Curves, Fanshapes & Lines by Tana Hoban
One Is a Snail, Ten Is a Crab: A Counting by Feet Book by April Pulley Sayre
When Pigasso Met Mootisse by Nina Laden

The Snail
<http://www.tate.org.uk/imap/pages/animated/cutout/matisse/snail.htm>
Golden Spiral
http://nlvm.usu.edu/en/nav/frames_asid_133_g_3_t_3.html

Andy Warhol

Campbell Soup I (1968)
Ice Cream Dessert (1959)

Andy Warhol (Getting to Know the World's Greatest Artists Series) by Mike Venezia
Uncle Andy's by James Warhola
Cubes, Cones, Cylinders, & Spheres by Tana Hoban
Mummy Math: An Adventure in Geometry by Cindy Neuschwander

Warhol Silkscreen Printing
<http://www.warhol.org/interactive/silkscreen/main.html>

Piet Mondrian

Composition with Red, Yellow, and Blue (1921)
Composition with Large Blue Plane, Red, Black, Yellow, and Gray (1921)

Two Short, Two Long: A Book about Rectangles by Christianne Jones
City Shapes Series by Jennifer Burke
Mondrian by Jose Maria Faerna

Piet Mondrian Coloring Page
<http://www.enchantedlearning.com/paint/artists/mondrian/coloring/matrix.shtml>

Hans Arp

Squares Arranged According to the Laws of Chance (1917)
Collage with Squares Arranged According to the Laws of Chance (1916-17)

Probably Pistachio by Stuart Murphy
Same Old Horse by Stuart Murphy
A Very Improbable Story by Edward Einhorn
If You Give a Moose a Muffin by Laura Numeroff

Other Select Literature/Resources

I Spy Shapes in Art by Lucy Micklethwait
I Spy Two Eyes: Numbers in Art by Lucy Micklethwait
I Spy Colors in Art by Lucy Micklethwait
Museum Shapes by The Metropolitan Museum of Art
Museum 1 2 3 by The Metropolitan Museum of Art
The ABCs of Art (Baby Einstein) by Julie Aigner-Clark
Math-terpieces: The Art of Problem-Solving by Greg Tang
Literature-Based Activities for Integrating Mathematics with Other Content Areas (Grades K-2, Grades 3-5, Grades 6-8) by Robin Ward

NOTE: I will have a new book published in the fall of 2010 by Bright Sky Press, which will be a compilation of math-visual arts activities. Keep your eye out for it! Tentative title: *Math Meets Modern Art: Kids Exploring and Creating Mathematics in Modern Art.*