# "Diaper-Wipe" Diffusion

# (art + science)

This project demonstrates the physical process of osmosis — the diffusion of water through a semipermeable membrane separating two solutions of different concentrations. The water-based markers are diluted by applying water, releasing energy that causes it to move. By filtering the water through an

ordinary wet wipe, the flow of the color is slowed and channeled by the presence of oil and alchohol in the wipe, creating random and interesting tie-dye-type patterns. Educational...and really fun to watch!



## Grade Levels K-6

Note: Instructions and materials based on a class of 25 students. Adjust as needed.

#### Process

- Place the shape on a couple of paper towels and color the diffusing paper with washable markers. The higher the marker concentration, the more intense the color.
- 2. Place one or more wet wipes directly over the shape. Try to overlap as little as possible. Press lightly down.
- 3. Spritz water through the wipe to the colors below. Cover the wipe with spray. Allow to sit for about 5 minutes.
- 4. Remove the wipes and set aside to dry.
- 5. When dry, add details with markers if desired. Display hanging from the ceiling or in a window. Diffusing paper is translucent, so colors really glow when light shines through.

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## National Standards for Visual Arts Education

 $\frac{\text{Content Standard } \#1}{\text{media, techniques, and processes}}$ 

**K-4** Students use different media, techniques, and processes to communicate ideas, experiences, and stories

**5-8** Students intentionally take advantage of the qualities and characteristics of art media, techniques, and processes to enhance communication of their experiences and ideas

<u>Content Standard #6</u> —Making connections between visual arts and other disciplines

**K-4** Students identify connections between the visual arts and other disciplines in the curriculum

**5-8** Students describe ways in which the principles and subject matter of other disciplines taught in the school are interrelated with the visual arts

# Materials

Crayola<sup>®</sup> Washable Markers, assorted 12-color set (21206-1309); share six sets across class

Roylco® Color Diffusing Paper, assorted shapes including Sea Life (12602-1020); share one or two packages across class

Baby Wipes, 2 per student

Paper Towels

Holbein<sup>®</sup> Watercolor Atomizer Bottle (02912-1003); share six across class

