

# Classroom Activity

## *Egg Tempera Recipe*

- Objective** Students will learn about the properties of a centuries-old painting medium, egg tempera.
- Grades** 5–12
- Time** At least one class period
- Materials** Eggs; water; squeeze bottles; plastic-coated paper bowls; soft, flat 1-inch brushes; dry tempera pigments in red, blue, yellow, and green (Crayola and other manufacturers make nontoxic dry tempera's. Look for the nontoxic seal on the label); poster board cut into smaller pieces; tongue depressors or plastic spoons for mixing; paper towels; and a hair dryer.
- Precautions** To avoid inhaling the dry pigments, do not shake them up or stir them. Recap dry-pigment jars immediately after use. Do not add anything to the dry pigments in their original containers. Store dry pigments away from light, heat, or dampness. Transfer dry pigments to squeeze bottles to prevent accidents in class.
- Background** Egg tempera, the traditional form of tempera paint consisting of ground pigments dispersed in egg yolk, is one of the oldest paint mediums. It was eventually surpassed in popularity by oil paints after the fifteenth century. For this exercise, commercially available dry-tempera paints are being substituted for traditional ground pigments (many of which are derived from mineral sources), which can be expensive, hard to obtain, and may be toxic.
- Process** With a little water, premoisten the plastic-coated bowls. For each color, add pigment to the water in the bowls, stirring carefully until the mixture is like heavy cream, and adding water if necessary.
- Separate the yolk from the white of the egg, as in cooking. Prick the yolk and let the yellow flow into a lightly pre-moistened bowl. With a spoon or tongue depressor, stir the yolk and add a few drops of water at a time to the mixture. Continue stirring until it reaches a thick cream consistency.
- Add enough yolk to each color to make a viscous but translucent mixture. Additional water may be used to thin the paint to the desired consistency.
- Once they begin painting, encourage students to use thin applications that dry quickly but to avoid diluting the egg binder too much. The hair dryer can be used to speed up drying time and to allow a demonstration of the effects of layering colors. Encourage students to experiment with overlapping the brush strokes and colors—to try painting light over dark colors, and visa versa. (They might approach the layering as is shown in the color-wheel diagram on the reverse).