

Mabee-Gerrer Museum of Art

Start with Art

Medieval Europe

Arts Integration Educator's Guide for Teachers and Parents

MAKING EGG TEMPERA PAINT:

About Egg Tempera:

Egg tempera paint is created by blending dry, ground pigment with egg yolk and water. The egg yolk is a natural emulsifier and acts as a binder for the paint. The combination of yolk and water together form a vehicle for the pigment. The pigment is the same water-soluble pigment that is used for watercolor and fresco painting.

One of the oldest painting mediums, egg tempera and was used all over the world. During the Middle Ages, egg tempera was used primarily for painting on wood panels to create altarpieces for churches. The medieval painter's apprentice would be the person tasked with grinding the pigment and making the paint.

Egg tempera paint only keeps for one day and it is difficult to mix the same color twice without some discrepancy. As a result, mixing the paint was a complex task for an apprentice. Furthermore, these qualities of egg tempera had to be considered by the artist; for this reason, egg tempera has traditionally been used in artworks that are thoughtfully and slowly created.

Traditionally, egg tempera is applied in applied in thin, transparent strokes, with color blending and modeling being the result of many layers of hatching and cross hatching. However, modern artists have revived this medium and continue to test its limitations, using it in new and different ways.

Directions for Making Egg Tempera Paint:

Supplies (per person): 1 egg (though additional eggs should be kept on hand in case of breakage), *1 cake of dried tempera pigment or 1 soft pastel stick, 1 hard plastic plate, 1 metal spoon (or firm mixing utensil), 1 cup (or bowl), 1 water container, water, 2-3 clear plastic straws, 2 small containers, soft-bristled brush, watercolor paper, 1 paint palette or disposable plate, 1 toothpick, paper towels, **cleansing wipes for hands and desks.

1. Visit the Mabee-Gerrer Museum of Art to examine the egg tempera panel paintings. Look closely at the paintings, observing the delicate brushwork and the method used for layering and blending colors.



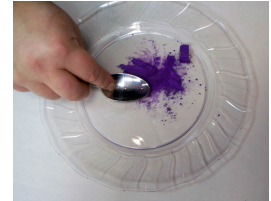
2. Gather together the supplies listed above.

*If you are completing this activity as a class project, students can grind and mix 1 different color each, creating a variety of colors to share. If you are completing this activity as an individual you will want to grind several different colors. For younger students, powdered pigments or food coloring can be substituted for the tempera/pastel. In that case, skip down to step 7.

**Raw eggs can carry salmonella and should be handled with care. Students should wash their hands and all exposed surfaces during and after this activity. Also, some students may be allergic to eggs. Students with egg allergies may opt to have a friend help with steps 7-11, or may attempt these steps wearing plastic gloves. If a student has a known allergy, it is recommended that you discuss these options with the student's parent prior to the student engaging in the activity.

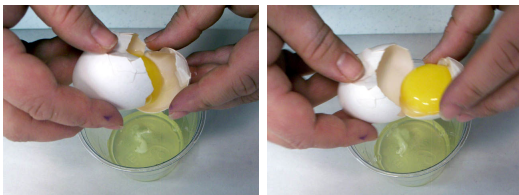
3. Use your fingers or the edge of the spoon to break the pigment up on the hard plastic plate.

4. Use the bowl of the spoon to grind the pigment breaking it down into smaller and smaller pieces.



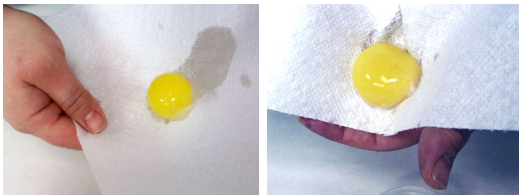
5. When most of the large pieces are broken up, use a straw as a pipette to add a drop or two of water to help the grinding. Keep grinding; keep grinding; keep grinding!

6. When the pigment is ground smooth and has mixed completely with the water, spoon it into a small container. If you are going to use the pigment right away, you can use a plastic cup. However, the ground pigment will keep in an air tight jar for some time.



7. Crack an egg on a flat surface. Working over a cup or bowl, place your thumb on the central point of the crack and push gently in and then pull apart the shell. Allow the egg white to stream into the cup.

8. Hold both sides of the shell and gently pour the egg yolk back and forth from one side of the shell to the other, allowing the egg white to drip into the bowl.



9. Hold a paper towel in one hand and pour the yolk gently onto it. Roll the yolk around to get rid of the rest of the egg white. You must have pure yolk, no white or yolk sack (see below), for your paint.



10. Maneuver the yolk until you're holding it gently at the edge of the paper towel.

11. Pierce the yolk sack with a toothpick and allow the yolk to drain into a small container. (The yolk cannot be kept for more than one day, so a disposable container will work fine.)



12. To mix the paint, on a palette combine a small bit of pigment and a small bit of egg yolk (about the same amount of each). Blend together thoroughly. Add a drop or two of water until paint reaches a consistency similar to syrup.

13. Test the quality of the paint by painting a swatch onto watercolor paper. Adjust pigment to yolk to water ratios accordingly (examining test swatches) until you achieve the desired quality.

