Giotto di Bondone Tutor Script

INTRO:

Tutor: Today, we are going to talk about Medieval artist Giotto di *Bondone (Gee-OH-toe DEE Bon-DOH-neh)*, a man who has been called "The Father of Western Painting". But first:

Ever wondered what paint is? Or how it's made?

<see of the students say anything>

Today, we can buy paint in lots of places and in any color we want. We buy watercolor pans at the grocery store, we buy buckets of house paint at the hardware store, and art stores have tubes of the stuff in all sorts of colors, types, and sizes.

But back in the Middle Ages, when Giotto lived, the first thing an artist had to learn was how to make his own tools, including his own paint and that's what we're going to do today.

Paint is made with a color powder, called a pigment, which is mixed with a binder, the glue that will hold the paint on the surface, and a vehicle (all the other stuff that makes the paint liquid and easy to work with.)

Giotto, like most Medieval Artists, mixed his colored pigments with whipped egg yolk whenever he worked on wood panel paintings, like this one (show Madonna and Child page 4 of the Giotto packet). This makes a paint called "Egg Tempera"[1].

Now, colored chalks, like sidewalk chalks and colored chalkboard chalks, are made of pigment mixed with chalk dust. When we crush these colored chalks, we get a pile of colored dust, which includes the pigment. Once we mix this with an egg yolk, we'll have paint that we can paint with!

First thing we need to do is crush our pigments—Giotto and other artists had to buy special types of rocks or powders or dirt from special places, then crush them into pigment powder. So we're going to crush this one chalk in a mortar and pestle and see how hard it is!

<Let the kids take turns. Make sure the rest of the pre-crushed chalks are ready to go. See my "Set Yourself up for Success" for details.>

What do you think? Is that hard, or easy? Now, imagine having to crush this chalk for most of a day in order to make a pigment powder you can paint with? Even young children who were learning to be artists could be assigned crushing pigments for an entire day as part of their education! Thankfully, we did some work earlier, and we have our pigment powder pre-crushed.

<Bring out Pre-crushed chalk powder.>

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[1] Giotto's most famous work is probably the frescos on the Arena Chapel. These, however, were not made with egg tempera, the pigments were mixed with water (no binder glue) and painted directly onto the wet plaster wall. The plaster sucked the pigment into the plaster and acted as the binder, trapping the pigment inside the plaster. He didn't use egg yolk for frescos.

Now, to make this into paint, we're going to add a few drops of egg yolk at a time, and mix the pigment powder and yolk together to make paint. When it's all mixed together and feels like heavy cream, it's ready!

<Demonstrate>

So, while we're mixing our paint and painting, we're going to talk a little bit about Giotto.

WORKTIME:

<At this point, you can do a few things:

1. *Read the Biography from the Discovering the Great Artists book*
2. *Read the facts on Giotto from Drawing Demystified's module on Giotto*
3. *Read a book or show some paintings that Giotto did from a library or personal books.*

Let the children paint, and look up on occasion to see Giotto's work if they want to. The goal of this section is to show the students what sort of things a Medieval/Renaissance artist had to do in order to work—making paint is one of the easier things. >

END:

So, how'd your paintings turn out? What did you notice about making your own paint?

<see what they say>

Did you know, that until the 1800's all artists, or even anyone who wanted to paint their house, had to mix their own paints with pigments?

Artists like Giotto especially had to know to crush rocks, sift dirt, or even make colors by soaking certain metals in vinegars and wine and scraping off the stuff that grew on it! Ever see a green penny? Or the color of the Statue of Liberty? Giotto and artists like him would scrape that green off and use it as a green paint called Verdigris (Ver-De-Gree). He also had to know which pigments had to be crushed a little, which had to be crushed A LOT, which colors could be mixed together to make new ones, and which ones would cause a chemical reaction and couldn't be mixed together!

Makes him sound a little bit like a scientist or a chemist, doesn't it?

So, who did we study today?

<GIOTTO>

What did we do to learn a little about Giotto's world?

<MADE OUR OWN PAINT>

What did you like about today?

<Listen to their Answer>

Set Yourself up for Success!

I know that the book we use, Discovering the Great Artists, talks about crushing the chalk and mixing it with the egg and painting with it, but from experience, this will take too long if you have to crush all the chalk in class.

Here's my suggestions:

Day(s) BEFORE CLASS

Select 3-8 colors: Primaries (red, yellow, blue) are always a good choice. Secondaries (orange, green, purple, but especially green) are a nice addition, and one or two neutrals (white and black, brown, if you have time) If I had to choose six colors, I'd personally chose white, black, red, yellow, green, and blue, but this is not a make-or-break decision. Hold one chalk (or one half of one chalk,whatever) whole, and leave it to one side to do an in class demo.

Crush the colors in a mortar and pestle, or under a rolling pin between two layers of wax paper, until they are roughly the consistency of sugar or flour. Even if they are not perfectly consistent, that's okay—little chunks in the paint might reinforce the concept of how hard this is to do! Bag each color separately.

1-2 DAYS BEFORE CLASS

Next, tackle the eggs. One egg per color per class will be more than sufficient. Separate the egg yolk from the egg white (discard or use the white) and pierce the yolk membrane , allowing the yolk to drain into a liquid measuring cup.

Add 2 teaspoon water per egg yolk. Stir until the yolk water mixture is homogenous.

Either cover the measuring cup with plastic wrap and store in the refrigerator, or pour into sealable bottles and store in the refrigerator. Either way, Egg yolk can go bad quickly, so store in the refrigerator when not in use.

I recommend reading the Immanuel Icons Glass Icon how-to for more instructions on making the egg yolk and missing the paint.

TAKE TO CLASS:

- Bags of Pre-powdered chalk
- Egg Yolk Mixture
- Whole Chalk
- Mortar and Pestle
- Paintbrushes (or Cotton Swabs for some of the younger kids)
- Paper to paint on (preferably 90 lb paper or heavier, though 70 lb will work)
- Large cup for water to rinse paintbrushes out
- Droppers (Optional—but very useful to distribute small amounts of egg yolk.)
- A palette of some kind. Options include:

    - Watercolor palette
    - Egg Carton (can even be cut in half
    - Paper Plate
- Cleaning Supplies (BEWARE: Pigments, even pigments mixed with chalk, can stain fabric surfaces. Lay down paper or plastic if you are in a carpeted room and aprons or paint shirts if you feel the need.

DAY OF CLASS

Before class

Spoon or pour small amounts of powdered chalk into the palette. Set aside until needed.

CLASS:

Start with intro…ask kids to start crushing the remaining whole chalk (optional). See how hard it is.

Mix the pre-paletted chalks with egg yolk. Use a dropper or pipette if you have it, pour very carefully if you don't. Stir together with a paintbrush, toothpick, or cotton swab.

AFTER CLASS:

Clean up your area, especially anywhere the paint has spilled. Egg tempera can stain, but is easily washable if caught early.

Dispose of the yolk. If the yolk starts to get stringy, it's a sign the yolk is starting to turn bad on you. Dispose of it before it starts to stink.

If possible, leave the artworks out for an hour or more before packing them up to go home. While Egg based paints are waterproof, they need to dry and then cure. The longer they can be left to dry before being filed somewhere, the better the paint will set and the less likely they will rot instead of cure.

If you get pigment on something, try to clean it quickly with detergent like Dawn. For clothes, this is easy enough, stain treat with detergent, rinse, check before you wash. It's better to hand stain treat multiple times before washing it in the machine. It's not foolproof, but has worked for me more often than not.

For things you cannot remove and treat (upholstery, carpet) I often add one-part detergent and one part water and whip it with a whisk until it's nice and foamy. I then scoop this foam off the top and use my fingers, toothbrush or scrubbrush to rub the soap into the stain (this keeps excess water off of surface) once enough of the stain is lifted, I spray the soap with a spray bottle and dab the mixture up. Let dry, repeat if needed.

Tips for Making Paint For Today's Project

Using the project outlined in Great Artists, we are making Egg Tempera, or more specifically, Gouache, ("Gwash") , an egg tempera paint which adds chalk to the vehicle. The chalk makes the paint more opaque. A couple of hints:

1.) Use sidewalk chalk, preferably from Crayola, which uses tested non-toxic pigments. In lieu of sidewalk chalk, Crayola sells standard colored chalk. These sidewalk chalks come in a variety of bright and relatively saturated colors, and, since we're going to be crushing the chalk to make paint, the non-toxic pigments Crayola uses will help keep everyone safe.

A second choice would be the recommended pastels mentioned in the book, but artists are more interested in saturated, light-fast colors, and less interested in toxicity. Each brand of pastels are going to be different, so if you're going to crush them, see if you can get a non-toxic brand.

Crush the chalk as finely as possible (somewhere between the consistency of sugar and flour). Just FYI: artists crush their pigments in a mortar and pestle then transfer the pigment to a glass plate and crush it with water using a special pestle called a Muller, to make a fine pigment paste. Without this step, your paint may be gritty with small chunks of chalk. That's fine; talk about the effort needed to get this far. This project can help increase appreciation for the extra effort Pre-Impressionist artists had to go through just to make paint! (And they also had to make their own brushes, surfaces, plaster walls…)

2.) If you want, purchase small bottles and droppers (I use these from Hobby Lobby, but anything similar will work well.) and pre-mix the egg yolk. Store in the fridge until needed.

I learned about mixing egg yolk for tempera from Randi-Sider-Rose of Immanuel Icons. Many Eastern Orthodox Iconographers still use natural pigments and egg paints to this day. Check out her instructions on how to prepare the egg yolk-and-water mixture on the right-hand side of her glass icons page. When I painted using egg tempera, I'd use her method, and found 1-2 egg yolks were more than enough for a single piece (completed over several days). You can easily make up a dropper of the egg yolk mix, and keep it refrigerated when not in use! IF you have a class of 4, an egg yolk with water might be sufficient.

3.) When making paint, always pile your pigment (or crushed chalk and pigment dust) in a little heap on a glass plate or paper plate first, then add egg yolk 1 - 2 drops at a time, mixing with your brush (or plastic palette knife, or plastic knife,) until the paint is the consistency you want it. The paint quickly dries, and is waterproof, so only mix as much as you can use! Have fun!