



Painting Botanicals by Computer Lesson

Objective:

Students will increase their computer graphics skills and be able to trace and paint botanicals from digital photographs they take of prairie plants using computer-aided artistic techniques in Painter Classic Software and with the Wacom Tablet and stylus. (available for Windows for about \$99.)

Grade Level: 6th and up

Time Required: 20 minutes taking digital photos outside of prairie plants; 10-15 minutes downloading pictures into a computer and viewing them in Photoshop to choose the best one and crop it; 5 minutes to set preferences for stylus; 15 minutes to experiment with the painting tools in the software

Blazing Star by Chiarra, 12

and find tools that will suit the plant form; 30+ minutes to trace and paint a computer-paint version using Painter Classic; save and print. (total 90-120 minutes)

Motivation: This is a good extension lesson for individuals working independently. An interesting artistic and scientific career is that of botanical artist and illustrator. Some botanical illustrators use computers to create their drawings. Graphic artists may have a need to create botanicals on their computer.

Materials:

Computer
Wacom Tablet and Graphire2 stylus, which comes with Painter Classic software.
Digital Camera
Color printer



Yellow Coneflower by Brian, 12

Procedure:

Students will go outdoors, on a field trip to a prairie, or find digital images of prairie flowers (close-ups of the top of the plant are best). It is always best to take one's own pictures, rather than run the risk of copying a copyrighted one. If students take the picture, they will also remember the physical details of the plant better because they saw it up close. Students will download the images to their hard drive or disk. They will then choose which image has the best composition, size, detail, and possibility to become a

well-composed little painting. They may have to crop it or resize it in Photoshop or some other photo software.

Students will open the Wacom software to preferences and set the weight of the stylus and eraser to their hand according to directions in the manual. Often about two-thirds of the way to firm is an adequate setting for most people to be able to achieve delicate lines with light pressure and thicker lines with heavier pressure of the stylus.

Students will open Painter Classic and experiment with the painting tools for 15 minutes, trying out the colors, the pens, pencils, brushers, and their variations, as well as brush sizes and other settings. They will be looking for tools that mimic the textures found in their chosen plant. They can use UNDO to erase, or use the eraser.

Students will open their image in Painter Classic. Following instructions, they will select, backspace (delete) and open the tracing paper for it. On this new transparent layer they will enter a painted background of their choice (sky, watercolor wash, etc.). Then they will trace or paint their prairie plant with the software's tools.

When satisfied with their painting, or when time has expired, students will save their painting on disk. To print it out, they can set the preferences to Print Full Page to get a large printout. Printing on textured paper makes an interesting effect, although paper textures and lighting can be adjusted in the software.

Assessment:

Paintings show a close-up view of a plant with a background in a balanced composition. (5 points or less.)

Painting mimics the textures and colors of the original thorough use of tools. (10 points or less)

Painting should show (and students should be able to list and define) the various parts of the plant, such as flower, stem, leaves, even the reproductive parts. (5 points or less)

Students can self-assess their learning curve on the software and stylus. (how the technological device helped or hindered them in the production of their work).



Yellow Coneflower by Sean, age 12

Illinois State Board of Education Goals Addressed:

Science:

13.B.2a Explain how technology is used in science for a variety of purposes.

13.B.2b Describe the effects on society of science and technological innovations such as the computer.

Visual Arts:

26.A.2e Describe the relationships among media, tools/technology and processes.

26.A.3e Describe how the choices of tools/technologies and processes are used to create specific effects in the arts.

High School

26.B.5 Create and perform a complex work of art using a variety of techniques, technologies and resources and independent decision-making.

27.A.5 Analyze how careers in the arts are expanding based on new technologies and societal changes.