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# Art & Technology [6th-8th grade]

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# Understanding by Design

## Unit Cover Page

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Unit Title: Art & Technology

Grade Level: 6-8

Subject/Topic Area(s): Digital Photography/Design

Designed By: Elizabeth A. Bendele

Time Frame: 4-6 weeks

School District: NorthEast Independent School District

School: Jackson Middle School

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Brief Abstract of Unit: This unit was designed to meet several needs in the art classroom: a.) to expose students to digital art and design; b.) to reveal instances where technology has altered the path of artists, c.) to integrate technology standards in the art curriculum.

The central understandings for this unit are: a.) *Art evolves as technology develops*; and b.) *Technology has provided a venue for the widespread production and mass viewing of art.*

Essential questions are: a.) In what ways has technology changed art? b.) Has art advanced/improved or declined/deteriorated with the advent of new technology? c.) Is the value of an artwork diminished when it is digitally manipulated?

The performance assessment for this unit asks students to create a Portraiture Portfolio, collectively demonstrating how technology has evolved art. The first portrait is drawn on paper with pencil/charcoal; the second portrait is taken on black and white film with a manual camera; the third portrait is taken on a digital camera and then digitally manipulated through software on a computer. The final component of the project is to scan/upload the images to an internet class blog/gallery and comment/critique on the work of classmates.

At the conclusion of the unit, students will be prepared to continue with the larger theme of Art & Technology or Digital Media.

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**Theme: Art & Technology.**  
**Unit: Digital Photography & Design.**  
**Grade: 6-8.**

## Stage 1: Desired Results

### Understandings

*Students will understand that...*

- Art evolves as technology develops.
  - Technology has provided a venue for the widespread production and mass viewing of art.

### Essential Questions

- In what ways has technology changed art?
- Has art advanced/improved or declined/deteriorated with the advent of new technology?
- Is the value of an artwork diminished when it is digitally manipulated?
- 

#### Knowledge

*Students will know [how to]...*

- The history of technology and its impact on art.
- Utilize appropriate vocabulary to describe digital compositions.

Art TEKS 117.38.c.8.1A, 3A, 3C, 4A:

- define a variety of concepts directly related to the art elements and principles, using vocabulary accurately.
- **analyze ways in which electronic media/technologies have influenced art.**
- survey career and avocational opportunities in art.
- analyze with the teacher or peers personal artworks in progress, using critical attributes, and participate in individual and group critiques.

Technology TEKS 126.12.c.2A, 5A:

- demonstrate proficiency in the use of a variety of input devices such as mouse/track pad, digital camera, printer, scanner.
- identify, create and use files in various formats such as text, bitmapped/vector graphics and image files.

#### Skills

*Students will be able to...*

- Use the viewfinder to balance and unify a [photographic] composition, using various elements and principles of design.
- Manipulate digital design software in order to produce desired artistic effects.
- View and publish digital artworks on the web.

Art TEKS 117.38.c.8.2A, 2B, 2C:

- create artworks integrating themes found through direct observation, personal experiences and imagination.
- apply design skills to communicate effectively ideas and thoughts in everyday life.
- select appropriate art materials and tools to interpret subjects or themes when producing photography and electronic media-generated art, traditionally and experimentally.

Technology TEKS 126.12.c.7D, 7F, 11A:

- demonstrate proficiency in the use of multimedia authoring programs by creating projects incorporating graphics.
- differentiate between and demonstrate the appropriate use of a variety of graphic tools found in draw and paint applications.
- publish information in a variety of ways including monitor display and Internet documents.

## Stage 2: Assessment Evidence

### Performance Task: Portraiture Over Time

Each student is asked to create a portraiture portfolio, collectively demonstrating how technology has transformed art. One portrait will be drawn in pencil or charcoal; one will be a raw black-and-white photograph taken on a manual film camera; and one will be a digitally altered photograph, edited on a computer.

These images will be uploaded to the web and critique will take place on the class blog-gallery.

Assessment of the portfolio will be determined by scoring a rubric and will also include room for student input and self-assessment.

### Other evidence:

*(quizzes, tests, academic prompts, self-assessments, etc.)*

- **3-2-1 Exit Slip:** 3 benefits of technology use, 2 disadvantages of technology use, 1 technology you'd like to see developed/invented.
- **Illustrated Timeline/Flowchart:** chronologically order major art events and write/tell/draw how Cause A produced Effect B.
- **Opinion Essay:** computer lab investigation on whether art has improved/declined with technology.
- **KWL Poll/Chart:** individual questionnaire to determine what is/will be known about photograph manipulation software (e.g. Photoshop) and digital cameras.
- **Quiz:** camera functions and vocabulary.
- **Guided Practice:** Check for understanding: manipulating stock images.
- **Quiz:** Photoshop/software procedures and vocabulary.

## Stage 3: Learning Activities

(Steps taken to get students to answer Stage 1 questions and complete performance task)

Day One: Technology Introduction/Anticipatory Set: Login to PollEverywhere.com and (after explaining ground rules) have students text in their answers to the following questions: How has technology influenced your life? Is technology a “good” or “bad” thing? How have we as a society benefitted from these technologies? How have we been harmed? • Groups discuss, record and informally present answers: Should we place limits on technology? What would life be like without technology? If time permits, allow groups the opportunity to consider implications of the following cartoons.

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"We find our younger employees respond better to 'try to beat your high score,' than 'we need to increase profits.'"

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"How come Lewis and Clark didn't just use MapQuest?"



"There's no control-X. That's what your scissors are for."



"Bad news. Our spyware is apparently a double agent."



"How am I? I don't know, let me check Google."

• As a class, craft a working definition of

technology for the upcoming art unit. • **3-2-1 Exit Slip:** Individuals list 3 benefits of technology, 2 disadvantages of technology, and 1 technology you'd like to see developed/invented.

Day Two: Warm-up: students write/draw/brainstorm: **How has art evolved with technology over time?** Discuss student answers. • Begin Art [Technology] History: lecture/show slides/clips throughout art history: cave paintings, written language, ancient pottery, drawing, egg tempera, oil paint, photography, computers, film, web design, etc. • Have students complete the *Illustrated Timeline/Flowchart* in partners/triads, placing major art events in chronological order, discussing how one event caused the other.

Day Three: Computer lab: Have students consider the question: **Has art advanced/improved or declined/deteriorated with the advent of new technology?** Have them type their *Opinion Essay* on Word, and give them access to all the slides from the day before so that they can include images as specific examples to back up their opinion.

Day Four: Buffer Day

Day Five: Introduce Digital Photography Unit; students sign Technology Agreement to ensure responsibility for appropriateness and damage. **KWL Poll/Chart:** What do you know about digital cameras? Can you turn on the flash? Which settings can you change? What do you know about Photoshop? Can you change a photo to black and white? Can you remove red-eyes? Can you fix over-exposed photographs? etc. • ChalkTalk/Discussion: **Is the value of an artwork diminished when it is digitally manipulated?** • Introduce the camera to the class and explain its engineering and functions. Provide handouts with vocabulary/diagrams for studying. For remainder of class, students practice using different settings and taking photographs of each other or from a stack of still-life objects in the room.

Day Six: Warm-up: Review camera. • Introduce important tips/steps for taking good portraits. • Students spend class taking photographs of still life or classmates, learning the functions of the camera. • **Quiz: camera functions and vocabulary.**

Day Seven: Computer lab: Present students with a folder of selected images from the previous day's experimenting with the cameras. **Guided Practice:** Introduce Photoshop, have students watch and follow as you demonstrate how the various tools and functions can be used (provide handout of Photoshop diagrams and vocabulary for students to take notes).

Day Eight: Computer lab: continuation of Photoshop instruction/guided practice; have students save their photos to their folder so they can be checked for understanding. • When the material has been covered, give them time to practice individually or study their handouts. • **Quiz: Photoshop procedures and vocabulary.**

Day Nine: Buffer Day.

Day Ten: Introduce Portraiture Portfolio Assignment. Distribute handouts: performance task, rubric, camera and Photoshop diagrams/vocabulary, composition guide, and important things to remember when taking portraits.

Spend the remainder of class showing slides/discussing what makes an effective image/composition.

Day Eleven: Computer Lab: Students begin work on Portraiture Portfolio.

Day Twelve: Computer lab: Continued Portraiture Portfolio Workday.

Day Thirteen: Computer lab: Continued Portraiture Portfolio Workday.

Day Fourteen: Computer lab: Continued Portraiture Portfolio Workday. Portrait One is due.

Day Fifteen: Computer lab: Continued Portraiture Portfolio Workday.

Day Sixteen: Computer lab: Continued Portraiture Portfolio Workday. Portrait Two is due.

Day Seventeen: Computer lab: Continued Portraiture Portfolio Workday.

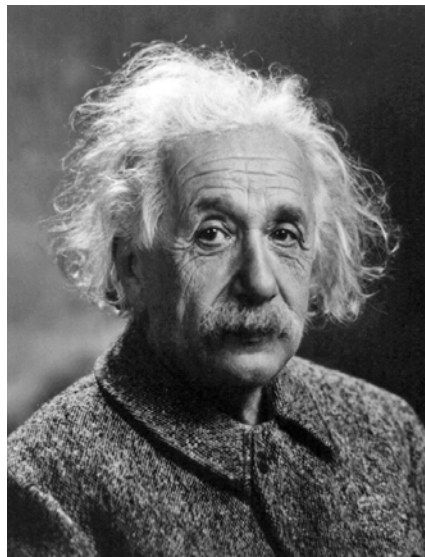
Day Eighteen: Computer lab: Continued Portraiture Portfolio Workday. Buffer day.

Day Nineteen: Computer lab: Continued Portraiture Portfolio Workday. Portrait Three is due. Final copies of all Portraits must be submitted.

Day Twenty: Computer lab: Introduction to web posting. Guided practice to assist students in setting up individual blog accounts for the gallery. As soon as students are ready, they may upload, title/caption and even provide a brief artist statement regarding their portraits.

Day Twenty-One: Computer lab: Continued web posting. As soon as students are finished, they may begin viewing the portfolios of other students and critique/comment on the work.

Day Twenty-Two: Computer lab: Students may view the online gallery if they haven't before and spend the rest of the period completing their self-assessment.



## Portraiture Portfolio!

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**Objective:** Demonstrate how *technology has changed art* over time by completing three very different portraits (some, all or none of them may be self-portraits).

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1. The first portrait will be **drawn on sulphite paper** completed on paper with pencil and/or charcoal, using a mirror or drawing from direct observation. Due: \_\_\_\_\_
2. The second portrait will be taken on **black and white film** with a manual, SLR camera, developed at an outside lab and will be turned in unedited; Due: \_\_\_\_\_
3. The third portrait will begin with an image taken on a digital camera and will be **manipulated using Photoshop** in our Digital Darkroom. Due: \_\_\_\_\_

Once completed, all three images will be **scanned/uploaded into our class blog**—which is where our **critique** for this assignment will take place via web comments. Due: \_\_\_\_\_

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**Challenge:** Students who enjoy the Digital Darkroom may continue to explore the field by creating and submitting a triptych of three or four images from the same self-portrait and receive a maximum of ten additional points!

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Above: *Jane Porter*, Unknown, c. 1828; *Helen Keller*, Unknown, 1905; *Birth of Venus, Red*, Andy Warhol, 1984; *Self-Portrait*, Giuseppe Arcimboldo, c. 1577; *Albert Einstein*, Oran Jack Turner, 1947; *Self-Portrait*, Andy Warhol, 1986

See also: <http://speckyboy.com/2009/01/07/29-really-creepy-and-creative-photoshopped-self-portraits/>  
<http://www.webdesignerdepot.com/2009/06/100-portraits-of-iconic-people-of-all-time/>

	<b>4 Exceeds Expectations</b>	<b>3 Meets Expectations</b>	<b>2 Needs Improvement, Meets Expectations</b>	<b>1 Does Not Meet Expectations</b>	<b>Comments &amp; Score</b>
<b>Portrait One: Drawing</b> Due: _____	Work is complete, not rushed or messy; all directions were followed; the appropriate materials were used and the artist was creative in her/his approach. 20-15 points.	Directions were followed, the appropriate materials were used and the work is complete. 15-10 points.	Directions were followed and the appropriate materials were used but the work is incomplete, hurried or messy. 10-5 points.	The work is incomplete; student did not follow instructions on materials and subject. 5-0 points.	/20
<b>Portrait Two: Film</b> Due: _____	Work is complete, not rushed or messy; all directions were followed; the appropriate materials were used and the artist was completely creative in her/his approach. 20-15 points.	Directions were followed, the appropriate materials were used and the work is complete. 15-10 points.	Directions were followed and the appropriate materials were used but the work is incomplete, hurried or messy. 10-5 points.	The work is incomplete; student did not follow instructions on materials and subject. 5-0 points.	/20
<b>Portrait Three: Digitally Modified</b> Due: _____	Work is complete, not rushed or messy; all directions were followed; the appropriate materials were used and the artist was creative in her/his approach. 40-30 points.	Directions were followed, the appropriate materials were used and the work is complete. 30-20 points.	Directions were followed and the appropriate materials were used but the work is incomplete, hurried or messy. 20-10 points.	The work is incomplete; student did not follow instructions on materials and subject. 10-0 points.	/40
<b>Web Posting</b> Due: _____	The student posted his/her artwork to the class blog and commented on the work of others. 20-10 points.		The student did not post her/his work to the web and did not post constructive criticism to the work of her/his classmates. 10-0 points.		/20

Score: \_\_\_\_\_/100

Challenge: \_\_\_\_\_/10

Final Score: \_\_\_\_\_.