Digital Art and Design:
Multimedia teaching strategies that facilitate expression

Slide 1:
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https://www.facebook.com/groups/427883640701222/
http://visualartandtechnology.blogspot.com/

Slide 2: In this presentation, we challenge the value of technology as a medium for self-expression and argue the importance of bridging technology with traditional media and artistic development to push the boundaries of visual literacy.

Slide 3: Young people today have grown and developed in the digital age. They are avid digital users and the media offers them a great opportunity to generate, create, and make meaning of their lives and their surrounding world. This presentation will look into the pedagogical potential of learning with new media produced by young people.

Today we will discuss:
• The importance of artistic development in creating lessons
• Students’ use of technology in innovative ways
• How digital tools and materials can contribute to meaning-making and artful explorations
• The ways creative technologies are changing teaching and learning

Slide 4: Technology, Education, and the Young User
• Young technology users are active artists. They are constantly using their personal devices to take images to communicate what is important in their lives
• The use of technology in the art classroom provides a means of expression, reflection and learning
• Carefully planned computer art lessons will help students explore their thoughts, visualize their ideas, and take risks
• Explorations with new media will empower students to be stronger visual communicators

Slide 5: Our Responsibility as Art Educators
• Provide students with a range of diverse tools for artistic expression
• Help students understand technology’s vast creative and visual communication potential
• Prepare students to become 21st century innovative thinkers so they will be equipped to participate in the Maker Culture

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• Stay on top of emerging new technologies and their impact on digital learning in the arts
• Create developmentally appropriate digital art lessons

**Slide 6:** Why Artistic Development?
Children need artistic challenges that match their developmental abilities in order to capture their interests, curiosities, and imaginations. Lessons must incorporate students’ experiences and what they care about so that their art is meaningful to them. It is crucial to create developmentally appropriate art lessons that involve exploration and experimentation with materials, including technology. *So what are the phases of human development, especially artistic development?*

**Slide 7:**
**Piaget’s Stages of Cognitive Development**
- Sensorimotor: Birth through ages 18-24 months
- Preoperational: Toddlerhood (18-24 months) through early childhood (age 7)
- Concrete Operational: Ages 7 to 12
- Formal Operational: Adolescence through adulthood

**Phases of Artistic Development**
**Victor Lowenfeld**
- 2-4 years: Scribbling
- 4-7 years: Pre-Schematic
- 7-9 years: Schematic
- 9-11 years: Dawning Realism
- 11-13 years: The Age of Reason
- 14-17 years: The Period of Decision/Crisis
- 17 years & up: Adult

**Judith M. Burton**
- 2-4 years: Pre-Representational
- 4-7 years: First Visual Symbols
- 7-9 years: Visual Events
- 9-11 years: Representing Expertise
- 11-13 years: Ideas in Search of Forms
- 14-17 years: More Ideas in Search of Forms
- 17 years & up: Adult

**Slide 8:** Ages 2-4 Pre-symbolic or Manipulative Phase
- Sensory motor learners
- First knowledge is through the action of their bodies and through their senses
- Just like a piece of paper, the computer screen becomes a target for those actions
- The excitement of making something where nothing was before

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As with other media, when children first use a computer and interactive graphics software, they often 'scribble' or 'try out' in a manner that acquaints them with the possibilities of the new medium.

**Slide 9: Ages 4-7 First Visual Symbols**
What was originally perceived as a wonderful design to an adult is actually a picture of a particular event with names attached to images. Once explained, the drawings make perfect sense. This is the phase when children are using sensory logic to create “functional” categories with identified characters.

It is important not to put adult understandings or assumptions on children’s art. For example, by saying “That looks just like a ...” you could deflate their artistic confidence if your assumptions are incorrect. Therefore, the best questions to ask should be neutral and unassuming, such as: “Can you tell me about your picture?” “You have some interesting things going on here. Tell me about them.”

**Slide 10: Ages 7-9 Visual Events**
This is the phase of planned representation of objects. It is a time when children come to recognize that they can make things with materials and that the art-making process evokes feelings. Therefore, just as seen with traditional art media, students often accompany action with commentaries describing lines as fast, slow, happy, or sad.

**Slide 11: Allowing them to Figure it Out**
The more opportunities children have to make art and explore materials, the better they’ll understand the world around them. Given these opportunities, students will naturally figure out challenging issues such as the horizon line, perspective, overlapping, bird’s eye view, and three dimensionality on a flat surface.

**Slide 12: Representing Expertise**
- Transitional phase, into pre-adolescent
- Symbol making
- Category of object
- Imaginative and representative
- Visually descriptive

**Slide 13: The Middle School Years, Grades 6-8**
This is a time of great change for the young adolescent.
- A time of stress and strain, when physical, emotional, and intellectual change leads to confusion and a sense of incompetence
- A time of unpredictable behavior, linked to their often unpredictable and uneven growth spurts
- They transition from concrete operational thinking to formal operational reasoning with thinking less tied to the world of concrete fact
- They develop the ability to test hypotheses, contemplate future possibilities and construct contrary to fact arguments

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• They debate virtues of adult alternatives over those chosen by themselves
• New ideas, questions, skills, and interests emerge but are not yet fully formed or integrated within a stable and consistent world view

Not all middle schoolers will become artists, but they are capable of constructing and expressing ideas, thoughts, and feelings through materials.
• They will use the medium of art to organize their intensely-felt experiences of being in the world
• The changes they are going through translate into their art making
• Their imagery reflects the conflict within the self
• They consider ideas, events, and objects from more than one vantage point
• They often find they lack the necessary motor coordination to carry out fine detailed work, which they strive for
• They become interested in surrealism and realism and find it hard to deal with non-representational works
• Some common themes that emerge: journeys, leaving home, adventures, romantic love, struggle of the weak against the strong, good against bad, and triumph of life over death

In their efforts to organize many views within one frame of reference, young adolescents are not asking to be taught perspective, but struggling to understand how they can connect what they know about three dimensional qualities of objects in the real world with what they know about lines on a flat surface.

The more opportunities students have to work out their artistic challenges naturally, the more comfortable they’ll be with their art-making.

**Slide 14: Ages 11-13 Ideas in Search of Forms**
• They have darker things on their minds and a sense of humor
• Subject matter may give us educators pause and is sometimes found unacceptable
• Art is not done to shock
• Images are done thoughtfully and intentionally
• Their images are expressions of what they have on their minds

**Slide 15: The struggle to arrive at an “experiential rightness”**
The best way to support young adolescents in their interests and help them construct new and more multi level ideas about materials is through:
• Focused yet open-ended exploratory activities
• Observational experiences that focus investigation and thoughtful looking
• Opportunities to use their imaginations to call upon experiences that are personal to them

This has been done through concrete materials, and is not only possible, but should be done through digital media as well.

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Slide 16: The High School Years Grades 9-12
During the years spanning high school, the motivation for creating art is derived from sources such as deeply held personal feelings, observation of the surrounding world, curiosity about state of affairs, and interest in exploring new skills through new materials.
Once energized by a thought, the repertoire of marks, shapes and form which high schoolers have formed from earlier development come together in a network of relationships through which they are able to express their thoughts and visualize their ideas. At this point, they do not hesitate to entertain all sorts of possibilities. Most importantly, as they work and rework their ideas and the use of materials, four abilities come into play:
Elaboration, Originality, Fluency, and Resistance to Closure.

Slides 17-20: More Ideas in Search of Forms
Development of ideas becomes an important artistic concept and leads their thinking beyond singular and separate works. Ideas are researched and fashioned using sketchbooks, journals, and portfolios, involving personal choice, critique, and the action of the imagination until a satisfactory outcome is reached.

Slide 21: There are many unconventional digital means available for artistic expression

Art Software: Kids Pix, Illustrator, Photoshop Elements, Photoshop, Flash, iMovie, and Photo Booth.

Art Apps: I Can Animate, Sketchbook Express, KaywaReader, Print n Share, Inspire Pro, Paper, SketchBook, Comic Life, Penultimate and Lapse It.

Slide 22: Lesson Ideas
So, after all this, how do you get started?
It has taken us many years of teaching with technology, going through much trial and error and self-teaching to come up with a series of lessons. At times, our ideas have been bigger than our resources. However, this has never stopped us and we have been able to bring basic technology methods into our art classrooms. Don’t be afraid. Experiment with the basics!
In the following slides, we will share some of our lessons involving digital art media.

Slide 23: Digital Explorations
Students need opportunities to explore new art media, whether traditional or digital, prior to engaging in any actual lesson.
• The purpose of exploration is to understand the limitations and possibilities that the new medium offers

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• With this understanding, students are better able to put the new found material in the service of their ideas

**Slides 24-25:** Kindergarten Lessons  
**Lesson Title: A Special Person/Animal**  
Lesson Objective: Students will communicate a life experience using computer drawing tools in the theme of a special person/animal in my life.  
**Lesson Title: Lesson Title: If I Could Get To School Any Way.**  
Lesson Objective: Students will use advanced computer tools such as the fill tool to create an imaginary experience.

**Slides 26-27:** Third Grade Lessons  
**Lesson Title: An Imaginary Pet**  
Lesson Objective: Students will use computer art tools to create texture and patterns in a picture based on an imaginary pet and its environment  
**Lesson Title: A Secret or Special Place.**  
Lesson Objective: Students will use advance computer art tools such as copy and paste to use for repetition in a picture depicting a secret or special place in their life.

**Slides 28-29:** Fifth Grade Lessons  
**Lesson Title: Snapshot**  
Lesson Objective: Students will access all fine art computer tools to create a self-portrait in action.  
**Lesson Title: Going to Middle School**  
Lesson Objective: Students will access all fine art computer tools to depict a concern or excitement.

**Slide 30:** Building on Previous Knowledge: Merging Traditional and Digital Materials

**Slide 31:** 7th Grade Lesson  
**What if Ads told the Truth?**  
Lesson Objective: Students will use advanced tools of technology with images from the internet to demonstrate the power of advertising in conveying the truth about a product.

**Slide 32:** 8th Grade Lesson  
**Lesson Title: Middle School, Remember Me**  
Lesson Objective: Students will learn to combine multiple devices to create digital images of their relationship with their school in a lesson based on leaving an image for the school to remember you by.
Slides 33-34: High School Beginner Computer Art
Lesson Title: Famous Person
Lesson Objective: Students will learn that the digital camera, in conjunction with computer art tools, can be used to create distinctive images that convey personal meaning based on the theme of interacting with famous people.

Lesson Title: Social Concern
Lesson Objective: Students will use digital cameras with advanced computer art tools such as the type tool to express a political or social concern.

Slides 35-37: High School Intermediate Computer Art
Overall Lesson Objective: Students learn that technology can be used for expression and that it is different from traditional fine art tools. Suggested themes:
Lesson Title: Ordinary to Extraordinary
Lesson Title: Reinterpreting a Famous Work of Art
Lesson Title: Scanning Your Day
Lesson Title: Middle Eastern Calligraphy

Slides 38-40: High School Advanced Computer Art
Lesson Title: Independent Project
Create a body of work related to a theme such as: The Unknown, Feeling Trapped, Isolation, Feeling Accomplished, and Comradeship. Minimum of six pieces.

Slides 41-45: High School AP Computer Art
Portfolio Development, Merging Traditional and Digital Materials

Slides 46-47: Film and Animation
Early elementary stop motion animation using Model Magic over Modeling Clay for fine motor control and time management.
Photoshop animation, Flash animation, stop motion animation, and film and video for middle school and high school levels.

Slide 48: Animation Process

Slide 49: Sculpture/3-D Art and Technology
littleBits
http://littlebits.cc/

Slide 50: The Digital Learning Environment
The many ways students work their way through digital media.

Slide 51: Emerging Technologies
QR Codes and Light Painting with Pixelsticks.

Slide 52: Field Trips to Digital Art Exhibits

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Slide 53: Digital Artists
Gary Kaleda, Barbara Nessim, Haley Mellin, Robert Weingarten, Leo Villareal

Slide 54: Some Last Thoughts
Technology is constantly growing and changing, forcing us educators to constantly learn new media. Sometimes we learn from our own students, and sometimes we are just one step ahead of them. However, there are many places to seek help and learn:

- YouTube tutorials
- Lynda.com
- The “Dummies” book series
- Atomiclearning.com

And finally, you can check us out at:
https://www.facebook.com/groups/427883640701222/
http://visualartandtechnology.blogspot.com/
Or email us at:
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Slide 55: Suggested Readings
Judith M. Burton; Learning In and Through the Arts: the Question of Transfer, Studies in Art Education, 2000
Judith M. Burton; The Integrity of Personal Experience, or, The Presence of Life in Art, 2005
Judith M. Burton; Developing Minds Series, School Arts, Feb. 1981
Judith M. Burton; A Guide to Teaching and Learning, 2013
Judith M. Burton/Mary Hafeli; Conversations in Art, The Dialectics of Teaching and Learning
Mihaly Csikzentmihalyi; Creativity, Flow and the Psychology of Discovery and Invention
Mihaly Csikzentmihalyi/Reed Larson; Being Adolescent
Victor D’Amico/Arlette Buchman; Assemblage
John Dewey; Art as Experience
Patrick Ewing/Linda Louis; In the Paint
Howard Gardner; Art Education and Human Development
Jerome Kagan; The Growth of the Child, Reflections on Human Development
Jerome Kagan/Robert Coles; 12 to 16 Early Adolescence
Jane Kroger; Identity Development, Adolescence Through Adulthood
Lois Lord; Collage and Construction in School
Nancy Lesko; Act your Age! A Cultural Construction of Adolescence
Bonny Pierce Lhotka; The Last Layer: New methods in digital printing for photography, fine art, and mixed media.
Scott Ligon; Digital Art Revolution.
Viktor Lowenfeld/W. Lambert Brittaine; Creative and Mental Growth
Kimon Nicolaides; The Natural Way to Draw
Jean Piaget; The Psychology of Intelligence
Jean Piaget/Barbel Inhelder; The Psychology of the Child
Michael Sadowski; Adolescents at School
K. Schminke, D. Krause, B. Lhotka; Digital Art Studio: Techniques for Combining Injet Printing w/ Traditional Materials
Nancy R. Smith; Experience & Art, Teaching Children to Paint
Nancy R. Smith/The Drawing Study Group; Observation Drawing with Children

**Slide 56:** Questions?