
AWQ 20 Photography

Senior Course Outline

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Resource to Support the 2010 Revised Ontario Arts Curriculum Policy Documents

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Course Description

This introductory and exploratory photography course focuses on building student interest, skill, and creativity, within a trusting, inspiring, and safe environment. Based on the overarching theme *Exposure*, this course will develop through four thematic units: *Manifesting Sight/Site/Cite*, *Open to the Elements*, *Secrets*, and *Uncover/Unfold/Unveil*. Students will learn photographic conventions, techniques, and terminology through the use of responsible practices with traditional and emerging technologies. Students will use the *critical analysis process* to reflect on, and interpret, a variety of photographic images. This course will explore personal histories in a larger context of meaning, and will allow students the opportunity to explore the work of a variety of artists, who will aid in their understanding of how art, and photographs in particular, reflect the culture and values of the societies in which they are created.

Prerequisite: None

Overview of Units: Suggested materials and Learning Tasks

AWQ20: Course Theme: Exposure (*Manifesting Sight/Site/Cite*, *Open to the Elements*, *Revealing a Secret*, *Uncover/Unfold/Unveil*)

Suggested Lessons/Activities:

These can all be adapted, extended, or abridged, depending on facilities and the nature of the course.

It is assumed that several themes and activities will run throughout every unit, such as the "Artist of the Month", and the use of the Visual Research Notebook.

Suggested materials and/or resources:

These can all be adapted to suit a full darkroom program, a full digital, or a combination of both. Materials which lend themselves to mixed media art production will also greatly enhance the variety and depth of the work produced.

It is advisable to post some large posters of the creative process, the critical analysis process, as well as anchor charts of technical and aesthetic exemplars and reminders.

Unit 1: Manifesting Sight/Site/Cite (30 hours)

This is an introductory unit which encourages students to begin thinking about "sight", and using the camera as artistic tool. They will also be introduced to basic photographic history and processes. They will create a photogram and/or pinhole camera.

- Intro to the Visual Research Notebook.
- Safety and ethics overview and introduction.
- Introductory Name Photo Collage.
- Introduction to elements and principles, and photo specific techniques through a scavenger hunt.
- Create a time-line of early processes in photography.
- Create a Photogram.
- Construct and use a Pinhole Camera.
- Introduction to the camera and its basic functions.
- Cameras: 35 mm SLR film or digital, point and shoot if no other possibility.
- **Darkroom:** functional darkroom, paper, film, and chemistry to develop.
- **Digital:** Computers with photo editing software, tutorials, Photo quality printer, Photo paper.
- **Classroom:** Glue sticks, iron, ironing board, magazines, matt cutter, matt board, mounting spray or mounting tissue, paper-cutter, rulers, scissors.

Unit 2: Open to the Elements (24 hours)

This unit gets students out taking pictures, exposes them to current photography, and continues the exploration of 'site'. The main focus of this unit is twofold; mastering the elements and principles of design that particularly apply to photography, and becoming more comfortable with the creative exploration of themes, natural elements, and atmospheric conditions in particular.

- Search and present photos to represent specific design criteria.
- Create and reflect upon an image that is based on the idea of "weathered".
- Write a critique which compares related artworks.
- Create a Hockney style collage based on narrative and personal meaning, personally or as a larger group. Create four photos representing the four elements, literally or symbolically.
- Examples of photographs that show weathering.
- Mixed media to extend the photographs and/or the Joiner collage.
- Video: *Hockney at the Tate*, BBC, 1988.
- LCD projector, or similar way to project suggested images.

Unit 3: Revealing a Secret (26 hours)

This unit encourages students to become more familiar with traditional photographic tools and techniques, as well as explore some which are more experimental and personal in nature. They will achieve this through the creation of several multi media artworks.

- Through high-key shots, students will change the meaning of objects through a digital or traditional collage.
 - Create a photomontage from found images, through the lens of appropriation.
 - Examine the issues surrounding ethical use of materials and property by using culture jamming or recontextualization to produce an artwork.
 - Create and share a two-minute presentation featuring appropriate artists, and produce information or charts for the walls.
 - Through the lens of "Private", "The Intimate", or "Voyeurism", students will create a small multi-media artwork.
 - After the study of cliché's, symbolism, and techniques for implying meaning, students will create an "Altered Image". This will be an altered digital or traditional self portrait.
- All previously listed materials, plus:**
- Digital still, video, and film cameras for students to sign out (batteries, usb cords, etc.).
 - Photo studio lighting.
 - Photo postcards, artists and artwork examples (digital or printed).
 - Scanner.
 - X-acto knives, cutting boards.
- Suggested videos:**
- Achbar, M., Abbot, J. & Bakan, J. (Producer / Director / Writer). (2003). *The corporation* [documentary film]. Canada: Big Picture Media
 - Goodman, B. & Dretzin, R (Producer / Director / Writer). (2001). *The merchants of cool: A report on the creators & marketers of popular culture for teenagers* [Frontline documentary]. United States: PBS.

Unit 4: Uncover/Unfold/Unveil (Includes final performance task) (30 hours)

This culminating unit will bring together the skills and knowledge developed throughout the course, and apply it to the creation of a proposal for final work, a portfolio of work to date, an artist's statement, and personal reflection. This unit may vary depending of the nature of what was taught in the course, and should be adapted to suit the specific skills and knowledge that students have accumulated.

- Explore, document, and reflect on the stages of the creative process in the Visual Research Notebooks.
 - Create a proposal for a unique culminating project, within the parameters of the curriculum guidelines.
 - Create a culminating studio work which connects in some way to the theme *Exposure*.
 - Create and submit an artist's statement, and personal reflection.
 - Assemble and present a portfolio or anthology of their best work.
 - Contribute a finished, labeled artwork for the final exhibition, which the students will also help to organize.
- All previously listed materials, plus:**
- Materials to suit the individual needs of students for their culminating assignment.
 - Materials and resources to aid in the creation of the portfolio\anthology of work.
 - Materials to facilitate the installation of an art exhibition.

Unit 1 Description (Approximately 30 hours)

Unit #1: Manifesting Sight/Site/Cite

The goal of this unit is to allow the students to familiarize themselves with basic picture taking and photographic processes. Through *sight*, students will sharpen their observation skills and understand the similarities of the camera to the eye. *Site* will be explored in terms of how a photograph manifests a single moment and place, as well as the places in which a photograph becomes a reality. Understanding basic photographic history and process will be *cited* and realized through the exploration of basic processes like photograms and the pinhole camera. An appreciation for what already exists in photography will be developed through some observation and critical assessment of other photographic works. While this broad theme is introduced as Unit #1, it will be ongoing in the course through entries in the Visual Research Notebook.

Overall and Specific Expectations

Unit 1. Overall Expectations

A1. The Creative Process: Students will apply the creative process to create a variety of art works, individually and/or collaboratively.

A2. The Elements and Principles of Design: Students will apply elements and principles of design to create art works for the purpose of self-expression and to communicate ideas, information, and/or messages.

A3. Production and Presentation: Students will produce art works, using a variety of media/materials and traditional and/or emerging technologies, tools, and techniques, and demonstrate an understanding of a variety of ways of presenting their works and the works of others.

B1. The Critical Analysis Process: Students will demonstrate an understanding of the critical analysis process by examining, interpreting, evaluating, and reflecting on various art works.

B2. Art, Society, and Values: Students will demonstrate an understanding of how art works reflect the societies in which they were created, and how they can affect personal values.

B3. Connections Beyond the Classroom: Students will demonstrate an understanding of the types of knowledge and skills developed in visual arts, and describe various opportunities related to visual arts.

C1. Terminology: Students will demonstrate an understanding of, and use correct terminology when referring to, elements, principles, and other components related to the visual arts.

C2. Conventions and Techniques: Students will demonstrate an understanding of conventions and techniques used in the creation of visual art works.

Learning Goals:

By the end of Unit 1, students will be able to:

- Understand the value of, and be able to use, a Visual Research Notebook.
- Understand basic digital and/or film camera functions and use.
- Take a variety of photos with a camera that are focused and framed in the viewfinder, using basic composition conventions.
- Know the basic history of the photographic process.
- Be familiar with the darkroom set up, and will be able to develop film, make a contact print, make a test strip, and print a photograph (darkroom).
- Capture photos to a computer and understand resolution issues (digital).
- Build and use a pinhole camera to capture a negative image.
- Learn about the relationship of light and exposure time.
- Learn the responsible and ethical use equipment.

C3. Responsible Practices: Students will demonstrate an understanding of responsible practices in visual arts.

Unit 1 Specific Expectations

A1.1. Students will use a variety of strategies, individually and/or collaboratively, to generate ideas and develop plans for the creation of art works.

A1.2. Students will use experimentation, reflection, and revision when producing a variety of art works in each of the following areas: drawing, sculpture, painting, printmaking, and mixed media.

A1.3. Students will document their use of the creative process in a portfolio and refer to this portfolio to reflect on how effectively they have used the creative process.

A2.1. Students will use various elements and principles of design to create art works that express personal feelings and/or communicate emotions to an audience.

A2.2. Students will apply the elements and principles of design as well as art-making conventions to create art works that communicate ideas, information, or messages, and/or that convey a point of view on an issue.

A3.1. Students will explore and experiment with a variety of materials/media, including alternative media and traditional and/or emerging technologies, tools, and techniques, and apply them to create art works.

A3.2. Students will demonstrate appropriate ways to prepare their art works for presentation.

B1.1. Students will identify and describe their initial reactions to a variety of art works, and explain the reasons for their reactions.

B1.2. Students will identify and describe the elements and principles of design used in their own art works and the works of others, and describe their effects.

B1.3. Students will explore and interpret a variety of art works, both historical and contemporary, to identify and describe their purpose and style, the materials used, and the meanings the works convey.

B1.4. Students will use a variety of strategies to identify and reflect on the qualities of their own art works and the works of others, and evaluate the effectiveness of these works.

B2.1. Students will identify and describe the function of various types of art works in past and present societies.

B2.2. Students will identify and describe ways in which various art works reflect the societies in which they were created.

C1.1. Students will use appropriate terminology related to elements and principles of design when creating and analyzing art works.

Key Questions:

1. In what ways can thought processes, material progress, and explorations be recorded?
2. In what ways does the camera lens manipulate sight and observation?
3. In what ways might photographic technique and technologies influence the artistic processes and outcomes of any given time period? (i.e.: digital vs. analog, tube vs. solid state)
4. How has photography been technically achieved, developed and changed historically, and explored aesthetically?
5. How can the sites for photography be experienced in terms of darkroom, computer lab and picture taking places?
6. Explain how picture-taking techniques can influence the meaning and interpretation of a photo. (POV, Framing, Proximity, Camera Angle, Bias).

C1.2. Students will use appropriate vocabulary to describe techniques, materials, and tools when creating and presenting visual art works.

C2.1. Students will demonstrate an understanding of a variety of techniques that artists use to achieve specific effects.

C2.2. Students will demonstrate an understanding of several conventions used in visual art works.

C3.1. Students will identify legal and ethical issues associated with visual arts, and demonstrate legal and ethical practices when creating, presenting, and/or promoting art works.

C3.2. Students will demonstrate an understanding of safe and conscientious practices associated with the use of materials, tools, and technologies in visual arts, and apply these practices when creating and/or presenting art works.

C3.3. Students will demonstrate an understanding of how the production and presentation of art works can affect the environment, and apply environmentally responsible practices when creating and presenting art works.

Instructional Strategies:

Lesson 1: Introduction to the Course. (1- 2 hours)

- Course Outline, Class Rules, Required Materials. Students should purchase a blank 8 1/2" x 11" sketchbook as soon as possible, and brought to every class. It is also advisable to have students create a portfolio to hold their completed works. This can be half a sheet of Bristol board, folded almost in half with a small flap left at the top, or it can be a purchased artist's portfolio. If you are using a darkroom, have a light proof black bag in which students can store their light sensitive paper. It is never advisable to leave photo paper unattended in the darkroom, but to have students responsible for their own, which can then be tracked.
- Introduce the ongoing portfolio component of the course that will be evaluated at the end. Begin with a physical portfolio folder, but later in the course you may wish your students to develop a digital portfolio if you have adequate facilities and computer access. See Unit 4 for details.
- Introduce *Artist of the Month* in a teacher lead discussion: Each month features a new, contemporary, photographically based artist. Insure variety in nationality, culture, gender, and style. Make sure to include Canadian artists. Include a bulletin board display of the artist: photo of the artist, examples of the artist's work, and an artist's statement.

Prior Learning:

As this is a grade 10 Open level course, it must be assumed that at least some students have not taken any secondary art courses. Through diagnostic tests and introductory activities, the teacher can assess what skills and knowledge areas need the most attention.

- Anchor charts are effective to include here, and throughout the course and classroom. These might be posted images and info about learning goals, and exemplars of good composition, technique, etc. Change them periodically as the course progresses.
- Display student artwork as much as possible and change it often. The teacher can do this, or a schedule can be established so that *students* are responsible for artwork display. Make the student photography visible to the whole school, and take advantage of occasions where parents and the public will be visiting your school. Exposure will give the students pride and will advertise the success of your program.
- Consider setting up a course website for online access. student forums, current web links, and photo sharing.
- Note: Hedgecoe (1998) is a good reference for basic photography information and techniques. O'Brien & Sibley (1995) is a textbook that can be used for film photography and darkroom at the secondary level.

Lesson 2: Introduction to the Visual Research

Notebook. (6 hours)

- Show examples of Visual Research Notebooks to introduce students to how they can be used. These may be previous student examples or photo artist examples found online, like: Dan Eldon and Peter Beard.
- Encourage students to use the VRN as widely as possible for both assigned tasks and independent explorations. It should combine a balance of written and image-based information, and should also combine a balance of created and appropriated components.
- *Name Photo Collage:*
 - Introduce the assignment with a teacher directed presentation including: An image presentation PowerPoint: Examples of photo collage works that show focal point, rule of threes, repetition, and overlapping; previous student examples; photo letter examples; examples of marbling, foil embossing, mono printing, and photocopy transfer, etc.
 - Option: These could also be presented as an image workbook that the students work through independently.
 - Some demonstration of techniques used in collage: Marbling, foil embossing, mono printing, and photocopy transfer

Assessment for and of Learning:

1. Visual Research Notebook

- Formative assessment of the Visual Research Notebook through regular verbal and written teacher feedback can be made through collection every couple of weeks.
- Formal teacher and student self evaluation of the Visual Research Notebook through a rubric (Appendix AWQ 20 1:2:3) is recommended also:
 - *Knowledge & Understanding*
 - Understands how the elements and principles of design are used through the completion of VRN entries.
 - *Thinking*
 - Uses brainstorming, planning and processing skills to document ideas in the VRN.
 - Uses critical and creative thinking process to problem solve in the VRN
 - *Communication*
 - Uses a balance of text and images to organize and express ideas.
 - Uses skills, techniques, vocabulary, and

(Appendix AWQ 20 1:2:2). Option: Set up exploration stations of these techniques. Divide the students into groups. Let them rotate through the stations, creating samples of each. (This will take at least one full class)

- Students create the *Name Photo Collage* for the beginning of their Visual Research Notebooks (Appendix AWQ 20 1:2:1).

terminology effectively.

- *Application*
 - Makes connections with and between the self and the world through photography and art.

Lesson 3: Manifesting Sight: Observation and seeing through the camera lens. (6 hours)

- Importance of the Power of Observation: Hooks might be: Why Art is studied by medical students; Staging an acted class scenario, like someone comes to the door and a brief situation takes place--then students are questioned about what they observed; A clip from the TV show the Mentalist or CSI is viewed and then observation skills are discussed; *Spot the Differences* (House, 2008) between seemingly identical photographs.
- Consider: To activate powers of observation, two things are required. First, stop talking - both internally and to others. When the mouth is closed, ears and eyes open wider. Second, gather verbal and non-verbal information without thinking about it. This is easier said than done, but can be mastered with practice. Practice the powers of observation (Gladwell, 2008)
- Teacher lead discussion on different camera techniques for tips for terrific pictures, Point of View, Framing, Rule of Thirds, and Leading lines. Show a variety of examples including artist of the month, some canon photographs, and some snapshots.
- *FotoFirsts: Photo Scavenger Hunt.*
 - Use basic camera and auto settings for the first picture taking experience.
 - Can be individual or in groups. Can be on or off school property. (i.e.: neighborhood, park, graveyard, city, mall). Adjust the objects or situations to suit the location, while the shot requirements remain constant.
 - Can be during class time, or for homework if class time is limited. These decisions are also based on the groups ability to work independently or with minimal supervision.
 - Use a flash indoors if not set automatically.
 - Students can get introduced to film developing and making a contact sheet.

2. Name Photo Collage

- It can be informally or formally assessed. If the provided rubric (Appendix AWQ 20 1:2:4) is used, students must be adequately prepared and aware of all the expectations before beginning the assignment:

3. Safety

- Worksheets can be informally assessed through a check for completion or a quiz (Appendix AWQ 20 1:3:3) can be administered.

4. FotoFirsts

- The FotoFirsts assignment can be assessed with a checklist or a rubric (Appendix AWQ 20 1:3:4) can be used for a more formal evaluation.
- Formative teacher observation of darkroom techniques.

5. Early Processes in Photography

- Here assessment can be made formally through a quiz/test (Appendix AWQ 20 1:5:9), or informally by using the questions in a game show format.

- Alternately, film can be developed commercially, or images can be produced digitally.
- See instructions for *FotoFirsts* (Appendix AWQ 2O 1:3:1).
- Safety.
 - Explain the difference between hazard and risk. A contract can be constructed to outline the safety expectations, which can be signed by parents. Further emphasis can be made on related environmental concerns and free trade issues. A jigsaw or placemat can work here. Have students record all the things that they think might be hazardous, and then compare between groups, and take up as a whole.
 - Alternately, students can work through a booklet or worksheets combining reading and questions on darkroom equipment and safety, chemical use, photo paper use, WHIMIS and MSDS. Samples of some of the materials and equipment can be laid out in the classroom for students to examine more closely. Alternately, students could do a scavenger hunt to search for dangers and co-create class expectations and boundaries.
 - Booklets can be collected and checked for completion or a safety quiz can assess learning (Appendix AWQ 2O 1:3:2).
- Comparing and Reflecting.
 - This section requires higher order thinking and will be addressed *after* students are familiar with Darkroom and Computer introduction that follows.
 - Once the *FotoFirsts* assignment is reaching completion, the contact sheet images can be cut up and arranged in the Visual Research Notebooks grouped by categories such as patterns, abstracts, shots with a lot of depth, strongest focal point, close ups, low angles, oblique camera angles, etc...
 - Alternately, these photos could be uploaded to a photo sharing website for the class to see and discuss. Students could look through selected peer shots and identify why they think some shots are stronger than others.
 - The teacher can select samples of the students' photographs to present and compare to the class. Alternately,

6. Photogram

- The photogram and pinhole camera activity can be assessed separately with the use of a rubric (Appendix AWQ 2O 1:5:10), or it can be assessed at the end of the course through an overall portfolio evaluation.
- Formative teacher observation of darkroom techniques.

7. Pinhole Camera

- The pinhole camera activity can be assessed separately with the use of a rubric (Appendix AWQ 2O 1:5:11), or it can be assessed at the end of the course through an overall portfolio evaluation.
- Formative teacher observation of darkroom techniques.

students can select their best photo to be discussed or critiqued. Images can be photographed and uploaded to a PowerPoint or SmartBoard presentation that can reinforce picture taking techniques to the class as a whole:

- Point of view
- Framing
- Rule of Thirds
- Leading Lines
- Camera distance
- Filling the frame
- Pattern and repetition
- Effects of lighting
- Until students become familiar with the critique process, a teacher lead critique is a good way to start. With any initial critique of student work it is imperative that the teacher establishes critique guidelines to insure that student confidence and comfort within the group remains intact.
 - Begin discussion with a positive appreciation of all the work represented.
 - Stress empathy and allow only constructive comments. Students should provide a concrete example of how the art piece might be improved, or how it relates to the elements and principles of design. Students should speak to the compositional frameworks and prerequisites of the task.
 - Allow think time for students to take in the image.
 - Allow class to discuss before the student photographer explains his/her intentions.
- While Unit 2 opens with an exercise in the Elements and Principles of Design, familiarity with the vocabulary can begin here. The more exposure the students get, the more familiar and automatic they become with the concepts.
- Ask open ended questions to encourage investigative and critical thinking:
 - What do you see? Why do you notice it?
 - What is the most original or creative thing you see?

Performance Tasks for Evaluation:

1. will create and maintain a Visual Research Notebook that will be an ongoing investigation workbook used throughout the course.
2. Students will create *The Name Photo Collage* (Appendix AWQ 2O 1:2:1) as an introductory assignment for the Visual Research Notebook that establishes ownership of the Visual Research Notebook, determines prior knowledge, and introduces the students to the creative process (Ontario Arts Curriculum, 2010).
3. Students will take their first shots in the *FotoFirsts: Photo Scavenger Hunt* (Appendix AWQ 2O 1:3:1). Students will organize them according to learned picture taking techniques, and use these images to be introduced to basic darkroom or digital processes.
4. Students will complete a safety form or worksheet.
5. Students will create a photogram (Appendix AWQ 2O 1:5:2) with or without a darkroom.
6. Students will document a timeline for the history of photography in their VRNs.

- How would you guess it happened?
- What do you think it means? Why do you think so?
- How does it make you feel? Why?
- What do you wonder about?
- After seeing these, are there things that you might do differently the next time you are taking pictures?
- Can you recognize how any of the elements and/or principles of design have been used?

7. Students will construct a pinhole camera, take photos with their pinhole cameras, be introduced to the darkroom process by developing the paper negatives and then creating positives of the image, and mount the prints for presentation. (Appendix AWQ 20 1:5:6).
8. As an extension, students can create solargraphs from extended exposures (Appendix AWQ 20 1:5:7).

Lesson 4: Manifesting Site: Darkroom and Computer Basics. (7 hours)

- *Note on Activity Rotation Option:* Where there is only a small darkroom or a limited number of computers available to the students, it will be necessary to establish an activity rotation schedule. A four-group rotation works well for an average class (Appendix AWQ 20 1:4:1). The first or last day of the week can be a whole class day with teacher lead activities and explanations for the rest of the week. With four activities set up simultaneously, the group members will take four days for a full rotation. During activity rotation, students will be expected to work more independently and the teacher will float between groups acting as a facilitator. Each unit of this course contains a variety of activities that can be worked into a rotation schedule if required.
- Darkroom basics for Film.
 - Darkroom tour.
 - If you are working with a rotation schedule, you will likely need to position yourself in the darkroom, as teacher demos and initial direct supervision is required. It might be helpful to ask a colleague teaching in the next room to periodically check in on your students working on the other modules in your classroom.
 - Teacher demonstrations for loading and developing film (Appendix AWQ 20 1:4:2).
 - Students develop *FotoFirsts* film.
 - Teacher demonstration for making a contact sheet (Appendix AWQ 20 1:4:3).
 - An enlarger can be brought into the classroom for a demonstration if the

darkroom is too small. It may take 3-4 days to get all students through the darkroom basics.

- Developing Black and White prints (Appendix AWQ 2O 1:4:4).
- Students will create and develop the *FotoFirsts* contact sheet. They can then complete the *FotoFirsts* assignment (Appendix AWQ 2O 1:3:1).
- Computers for Digital
 - If you are working with digital, and are not using a darkroom, you would not need to do Darkroom basics for Film.
 - Introduction to the Photo software available to your school.
 - You can use programs like Adobe LightRoom and Adobe Photoshop. Others could be: Aperture and Lightroom, iPhoto, Picasa, F-spot, gthumb, gnwview, digikam, and mapivi. Directions will be specific to the software being used. Free online tutorials are very easy to find, and can be an excellent tool.
 - Explore the digital darkroom. Allow students time to become familiar with the program on their own through self-directed exploration, or give them a virtual tour of the program and then give them some specific tasks to complete that allow them to investigate and manipulate the program.
 - Images will be captured according to the specific program being used.
 - If the students are unfamiliar with the basic aspects of their computer, they should be guided through a teacher lead investigation on the computer:
 - Connecting the camera up to the computer.
 - File management: how, where, in what format. An understanding of why files need to be named and organized.
 - Relevance of file size.
 - File backup.
 - Familiarity to photo software in order to get the most out of each digital photograph.
- Download *FotoFirsts* images.
- Print out a digital contact sheet.
- Complete the *FotoFirsts* assignment.

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Whenever possible, vary the presentation of information to appeal to different learning styles. Include visual images, actual demonstrations, hands on activities, verbal explanations, and written support. Vary individual, group, and whole class activities.

Extensions

- If teachers wish to set up an online course through Advanced Broadband Enhanced Learning (ABEL), accounts, training, and resources are free for educators. Contact them at: <http://www.abelearn.ca/>
- Students demonstrating required skill and knowledge should be given increasingly more flexibility and choice in activities.

Lesson 5: Manifesting Cite: Early Processes in Photography (12 hours)

- Early experiments in photographic processes can be used to introduce this activity.
- Video: *The Genius of Photography* (BBC, 2007); episode 1; *Fixing the Shadows*, 60 min., is a good introduction to the history of photography. The entire series of six episodes can be downloaded off the Internet. An alternative video is *American Experience: The Wizard of Photography* (PBS, 2000), 60 min.
- A timeline can be started in the Visual Research Notebooks. The teacher can provide a photocopied sheet of image examples that the students can cut up and locate on the timeline, or students can locate copies of these on the Internet, and create a digital version, or print out (Appendix AWQ 20 1:5:1 a, b & c).
- Students can work in pairs.
 - Johann Heinrich Schultz (1687-1744)
 - discovered silver salts that turned dark when exposed to light.
 - Joseph Nicéphore Niépce (1765-1833)
 - heliographs.
 - took the first permanent photograph requiring an 8 hour exposure (1827).
 - Louis Daguerre (1787-1851)
 - patented the *daguerreotype*, capturing permanent images quickly (1839).
 - first to photograph a person.
 - William Henry Fox Talbot (1800-1877)
 - Photogenic Drawings
 - a gentleman scientist interested in optics, chemistry, botany and art.
 - experimented with contact printing from as early as 1834.
 - developed the positive/negative contact printing process; the calotype.
 - John Herschel
 - demonstrates hyposulfite of soda as a fixer (1839).
 - makes the first glass negative.
 - Frederick Scott Archer
 - developed the collodion process; nitrate in ether on glass (1851).
 - James Clerk Maxwell
 - first colour photograph (1861).
 - Mathew Brady

Support Materials & Resources

Books

- Eldon, Dan. (1997). Kathy Eldon (Ed.), *The journey is the destination: The journals of Dan Eldon*. San Francisco: Chronicle Books.
- Gladwell, M. (2008). *Blink: The power of thinking without thinking*. New York, NY: Little, Brown and Co.
- Hedgecoe, J. (1998). *The photographer's handbook*. New York, NY: Alfred A. Knopf.
- House, C.E. (2008). *Spot the differences: 100 challenging photo puzzles*. New York, NY: Sterling.
- Ministry of Education (2010). *The Ontario curriculum, grades 9 and 10, the arts*. Retrieved from <http://www.edu.gov.on.ca>
- O'Brien, M.F. & Sibley, N. (1995). *The photographic eye: Learning to see with a camera*. Worcester, MA: Davis Publications, Inc.
- Roukes, N. (1982). *Design synectics*. Worcester, MA: Davis Publications.

- exposes 7000 negatives of the American Civil War (1861-65).
 - Richard Maddox
 - invented gelatin emulsion (1871).
 - Eadweard Muybridge
 - made a high-speed photographic demonstration of a moving horse, airborne during a trot, using a trip-wire system.
 - answers the question: "Do a horses hooves ever leave the ground at once?" (1877).
 - George Eastman
 - Kodak company; Kodak no 1 box camera, using emulsion on paper, for mass market (1888).
 - Improves camera with celluloid film instead of paper (1889).
 - Introduced Kodak Brownie box roll-film camera (1900).
 - Alfred Steiglitz
 - organized "Photo Secessionist" show in New York city (1902).
 - Man Ray (1890 – 1976) Rayographs
 - A series of swirling, abstract shapes were created without a camera by exposing objects placed on sensitized paper to light.
 - Followed Dadaist ideas about accident, chance, and the subconscious.
 - Students can explore virtual photograms and learn about Man Ray through the MOMA web link: <http://redstudio.moma.org/interactives/fauxtogram/>
 - Contemporary artists continue to make photograms.
 - www.photograms.net
 - Martha Madigan
 - Susan Purdy
 - Angela Easterling
 - David Cross
- *Photograms*
 - Photograms or sun drawings are a great way to link studio activity to early photographic processes. Students will gain experience with the darkroom process, but they can also explore photograms without a darkroom. If a

Materials

- Cameras:
 - 35mm SLR camera or DSLR camera are preferable.
 - Point and shoot cameras are acceptable if no other options are available.
 - Department camera rentals work when camera stock has accumulated.
- For Darkroom component:
 - Darkroom with enlarger.
 - Contact printers.
 - Developing supplies.
 - Photo paper.
 - Bulk film.
- For Digital component:
 - Computers for classroom use.
 - Digital photography software.
 - Photo quality printer.
 - Photo print paper.
- Classroom:
 - Glue sticks
 - Iron
 - Ironing board
 - Magazines
 - Matt cutter
 - Matt board
 - Mounting spray or mounting paper.
 - Papercutter
 - Rulers
 - Scissors

darkroom is available, then its introduction precedes this performance task.

- This is also a good opportunity to reintroduce students to the different types of balance in a composition. In their initial sketches, students can create several photogram designs following the challenge below, with each composition emphasizing symmetrical, asymmetrical, or radial balance.
- Using a variety of techniques, students will create a photogram (Appendix AWQ 20 1:5:2) paper negative. This project can be done with cyanotype chemicals or blueprint paper, outside or with a UV lamp. A digital option is the Scan-a-gram, where students put objects right on the scanner bed and scan them in. A sheet of acetate can be used to protect the glass bed. Students can then arrange the scanned objects or textures digitally.
- A positive contact print will be created.
- Both negative and positive can be mounted and displayed together.
- Examples of photograms (Appendix AWQ 20 1:5:3).
- Teacher demo on photo mounting and matting.
- Camera Obscura
 - The history of the camera obscura (dark chamber) is used to introduce this activity and how a basic camera works. Students will have already been exposed to the idea of the camera obscura while viewing *The Genius of Photography*, Episode 1. It is a black box or room with a screen on one side and a small hole in the other side. The hole allows light in. It projects the image from the outside onto the opposing wall/screen. The smaller the hole, the sharper the image, but also the dimmer the image will be.
 - Johannes Vermeer (Dutch Baroque, 1632-1675).
 - created accurate drawings and paintings with a camera obscura.
 - Options: Turn classroom into camera obscura.
 - Duct tape thick black garbage bags on the windows. They must be light tight.

Videos

- DeVinney, J.A. (Producer). (2000). *American experience: The wizard of photography*. New York and Washington, DC: PBS.
- Kirby, T. (Director and Producer), (2007). Fixing the shadows [Television series episode 1/6]. In *The genius of photography*. London, UK: BBC.
- Paterson, A., & Tucker, A. (Producer), Webber, P. (Director), & Hetreed, O. (Writer). (2003). *Girl with a pearl earring* [Motion picture], chapter 9. UK & Luxembourg: Pathé.

- Choose a window with an interesting scene behind it and a clear wall opposite.
 - Cut a small 1 inch square out of the garbage bag window cover. Observe the inverted, projected image on the opposite wall. If the image is not bright enough, cut the hole a little larger.
- Another effective demonstration/ participation technique is to create a wearable pinhole camera out of a large cardboard box, with a cloth draped over it. One interior wall is painted white, while the rest is painted black. Students can put their head inside and see the projected image.
- Camera Obscura images (Appendix AWQ 20 1:5:4).
- Contemporary artists continue to use camera obscura and pinhole cameras. Show examples...
 - Ann Hamilton, *Spirituality* episode, Art 21 video series (PBS, 2001), Season 1.
 - Thomas Hudson Reeve; pinhole folded photo paper cameras.
 - Wayne Martin Belger; makes radical pinhole cameras out of organic and inorganic materials.
 - Steve Irvine; makes ceramic pinhole cameras and takes photos.
 - Abelardo Morell; photographs the images produced inside camera obscura rooms. Try accessing images of his work at www.abelardomorell.net
- Basic Anatomy of the Camera
 - Explore different cameras (old ones collected from parents, garage sales, Value Village and eBay): Folding, box (Brownie), rangefinder, twin lens reflex (older film point and shoot), single lens reflex (older SLR manual and semi-automatic), Polaroid, digital twin lens reflex, and digital single lens reflex (DSLR). You might even be lucky enough to have a large format or plate camera to show students.
 - Parts of a simple camera:
 - All cameras have the same basic structure. Working in

Websites

- The Camera Truck, a giant, mobile pinhole camera, can be found at: <http://cameratruck.net/Site/Landing.html>
- There are many useful pinhole and photogram related sites to be found online, from scientific, technical, historic, and aesthetic backgrounds. This can be an independent search done by students, with the results recorded in their VRN's.

groups, students can locate the parts with the teacher's guidance while looking at real cameras and taking them apart (broken ones will allow for manipulation without concern).

- *Body*: A light proof box.
- *ISO Adjustment*: Adjusts for the amount of available light. ISO is set matching the specific film for a film camera. ISO is set through the menu in a digital camera.
- *Aperture*: An adjustable diaphragm that allows light from the lens to the sensor or film. This can be marked by f-stop settings.
- *Shutter button*: Controls the shutter to take a picture. Click.
- *Shutter*: A moveable shield that opens and closes to permit light to strike the sensor or film. The speed of the shutter is adjusted to different light and motion conditions. The shutter speed setting controls the amount of time the sensor or film is exposed to light; how fast the shield opens and closes. It is set in fractions of a second (ie: a shutter speed of 250 means the length of exposure is 1/250th of a second).
- *Lens*: Glass pieces that focus the light from the subject to the film or sensor. Manual focus is achieved by turning the lens grip, while auto focus is set by pressing the shutter button halfway.

- *Film or sensor or paper:*
Receives and reacts to the light forming the image.
- The Viewing System:
 - A comparison of the camera to the eye can aid in understanding the camera's viewing system (Appendix AWQ 2O 1:5:5).
 - Images are:
 - Inverted (upside down)
 - Reversed (left to right)
 - Negative (white is black, black is white)
- *Pinhole Camera*
 - Creating and using a pinhole camera is a comfortable progression from camera obscura and understanding the camera.
 - The origin of Pinhole photography dates back to the Middle Ages when the Camera Obscura was invented. The Greeks were aware of optical laws and the process of writing with light much earlier. The Camera Obscura (Appendix AWQ 2O 1:5:4), which translates literally to a 'darkened chamber', is the basis on which cameras are still made today. This process is an excellent opportunity to introduce not only the history of photography, and the idea of the "image", versus "reality", but also the scientific basis for how light works. Originally created as entire rooms for artists to use as a basis for painting, the rooms were eventually reduced to boxes. Artists such as Johan Vermeer used them to record accurate images. There are several excellent movie clips, such as "Girl with the Pearl Earring" (2003), chapter 9, which illustrate it's use and context.
 - Pinhole photography is lens-less photography. A tiny hole replaces the lens. Light passes through the hole and a latent image is formed in the camera on photographic paper. Exposures can be long, ranging from half a second to

several hours. The pinhole images are typically less sharp than a focused lens camera.

- Students can make their own pinhole cameras out of pop/soda cans (Appendix AWQ 2O 1:5:6), oatmeal boxes, Pringles chip can, black film canisters, etc... As an extension, they can even make and design their own boxes, transforming the camera construction into an arts activity in itself. Pinhole camera templates can be downloaded and modified so that students create their own designs and decoration; try the templates at <http://www.corbis.readymech.com/en/>
- No darkroom? A digital SLR without a lens can be turned into a pinhole camera. Being careful to keep dust out, a body cap with a hole cut out of the center is put in place over the lens opening. A thin piece of tin with a hole in it is tape to the outside of a body cap. Experiment with exposure times. Download the images. To make a positive print, set a cell phone or digital camera setting to 'negative'. Take a photograph of your negative print being careful to avoid reflections off the photo paper. Email or download the positive photo to your computer. Another way is to scan the paper negative onto your computer with a flat bed scanner. It may be worth placing a book on the paper negative to ensure that it lies flat on the scanner. Photo-imaging software can then be used to create a positive image.
- Create and mount both positive and negative images through darkroom processes or by manipulating the image digitally.
- For a long-term exploration, the students can use waterproof pinhole cameras for extended exposures to create solargraphs (Appendix AWQ 2O 1:5:7).
- See images for pinhole camera construction and student examples (Appendix AWQ 2O 1:5:8).

Note: If there is limited time you may want to choose *either* the Photogram or the Pinhole activity.

Glossary of Terms

Aperture (f-stop): The adjustable opening in a camera lens used to control the amount of light reaching the film. The size of this hole is called the f-stop. F-stop numbers on the outside of the lens corresponding to the aperture opening. The larger the number (e.g., F/22), the smaller the opening of the lens; the smaller the number (e.g., F/2.8) the larger the opening of the lens. The f-number is equal to the focal length divided by the aperture diameter.

ASA: Abbreviation for American Standards Association. In conjunction with a number, like 400, ASA refers to film "speed" or sensitivity. The higher the number, the more sensitive the film. (Same as ISO, International Organization for Standardization)

Backlighting: Light coming from behind the photo subject. Can cause underexposure of the main subject with auto exposure systems.

Baseboard: Gives the enlarger stability and is where the print easel is placed.

Bellows: Accordion-like device that allows the lens to move toward or away from the easel. They keep light in.

Blur: Unsharp. Caused by inaccurate focus or excessive movement of the camera or subject.

Bracketing: Practice of varying exposure to insure accurate exposure of a given subject; e.g., exposing "one stop under" and "one stop over".

Calotype: The first negative/positive process, invented by W.H. Fox Talbot in 1839. Paper was coated with silver iodide and a solution of silver nitrate and gallic acid. After exposure the paper was developed in a silver nitrate solution.

Camera: Boxlike device for holding a film or plate sensitive to light, having an aperture controlled by a shutter that, when opened, admits light enabling an object to be focused, usually by means of a lens, on the film or plate, thereby producing a photographic image.

Camera lucida: Lens and prism system through which a virtual image was seen, apparently appearing on the surface of the drawing paper.

Camera obscura: A device used by early artists to display a scene on the wall of an otherwise-darkened room so that it could be more-easily copied. In a manner similar to the pinhole camera, a small hole placed in an opposite wall permitted light to enter the room (the "camera"), and the scene outside became transmitted inside, and was shown inverted on the rear wall or sometimes on a screen. The camera obscura is the origin of the modern camera.

Cartes-De-Visite: Portrait photograph on a mount about the size of a postcard. Introduced in 1854, carte-de-visite became a social craze in many countries during the 1860s.

Celluloid film: Photosensitive material used in a camera to record an image. Made from a thin, transparent base coated with light sensitive chemicals.

Centers-of-Interest: The areas in the composition to which the eye is attracted.

Clone Stamp: Allows you to duplicate part of an image.

Collodion: Soluble gun cotton, dissolved in a mixture of ether and alcohol, also known as "wet collodion". It was invented by Frederick Scott Archer in 1851-52. It was a great improvement over the earlier calotype process because of the large increase in speed gained by exposing the plate while still "wet", but it had the disadvantage of requiring bulky equipment.

Colour: Differentiates and defines lines, shapes, forms, and space. Even black and white images have a huge number of different shades of gray.

Column: Allows the enlarger head to move up and down, and it holds the head steady during the exposure.

Composition: The arrangements of the elements or the subject matter of an image. A successful composition draws in the viewer and pulls their eye across the whole image so that everything is taken in and finally settles on the main subject.

Condenser: Optical system that concentrates light rays from a wide source into a narrow beam. Condensers are used in spotlights and enlargers.

Contact print: A print made with the negative in contact (held tightly against) the photographic paper so that both negative and print are the same size.

Contact printer: Apparatus used for making contact prints. Equipment ranges from a contact printing frame to more sophisticated boxes with safe lighting.

Contact sheet: A contact print made from several negatives at one time. The negatives actually come in "contact" with the printing paper, or as close as possible to the print paper when in a contact-printer negative holder.

Contrast: Subjective judgment of the difference between densities or luminosities and their degree of tonal separation in a subject, negative, or positive print.

Cool colours: Colors that suggest coolness, such as green, blue, and purple.

Copyright laws: Laws that govern the legality of ownership of a particular photographer or piece of work.

Crop tool: To enlarge an image so that parts are cut or left off the print.

Cropping: Getting close and working with positive and negative shapes.

Daguerreotype: (1) An obsolete photographic process in which a picture made on a silver surface sensitized with iodine was developed by exposure to mercury vapor. (2) A picture made by this process.

Darkroom: "Dark", light-tight space for processing and printing photographic materials.

Depth of Field: The distance between the farthest and nearest points which are in focus. "Depth-of-field" can also be used to describe the zone of acceptable sharpness before and behind a given focused subject. DOF varies according to numerous factors such as lens focal length, aperture, shooting distance, etc.

Developer: Chemical bath containing reducing agents, which converts exposed silver halides to black metallic silver, making the latent image visible.

Development: Process of converting exposed silver halides to a visible image.

DSLR: A single lens reflex camera that takes pictures without film, but instead records the image on an image sensor chip in a format that is readable by a computer.

Easel: A darkroom device used to hold paper flat while exposing it to light from an enlarger. An easel creates a white border surrounding a print because its "arms" block light from striking the print paper's edges. The sliding arms can be adjusted vertically and horizontally in order to create prints of specific measurements.

Elements of Design: The art building blocks of the Principles of Composition: line, shape, form, colour, value, texture, and space.

Emulsion: The light-sensitive, chemically active surface on photographic film and paper.

Enlargement: A photographic print made by "enlarging" an image from a piece of film.

Enlarger: An adjustable light projection device used in a darkroom to project an enlarged image from a negative through a lens onto photographic paper in various degrees of enlargement.

Enlarger head: This is where the light source is located, as well as the filters and lens.

Exposure: The amount of light that reaches film or the combination of f-stop and shutter speed that controls the amount of light. Also used to describe an exposed piece of film.

F-stop: Number that equals the focal length of the lens divided by the diameter of the aperture.

Fiber based paper: Photographic paper without a resin coating. Processing times are longer than for other papers, but the paper is more archivally permanent.

Film advance: Depressing this button advances the film one frame.

Film rewind: Camera feature that rewinds the film back on to its spool, ready for removal from the camera.

Film speed: Measurement of film's sensitivity to light, generally in numerical terms of an ISO exposure index - e.g. ISO 100. More sensitive (faster) films have higher ISO numbers and require less exposure in order to make a properly exposed picture.

Film speed dial: Synchronizes the camera with the speed of the film being used.

Fix: Fixing bath / Hypo. The chemical solution used for fixation. It removes any photosensitive silver-halide crystals that were not acted upon by light or by the developer.

Fixed lens camera: A camera with a non-removable, non-zoom lens. The lens focal length can't, therefore, be changed.

Flash: Artificial light source. Usually camera mounted but also larger studio models called strobes.

Focal length: The distance between the back lens element and the focal plane. In 35mm format, lenses with a focal length of approximately 50mm are called normal (standard), lenses 35mm and shorter are called wide-angle, and lenses with a focal length of more than approximately 70mm are called telephoto lenses.

Focal Point: The exact point at which the camera is focused at maximum sharpness.

Focus control: Means of adjusting a lens' elements in relation to the film plane so as to obtain the required sharpness in the image.

Focusing ring: Moves the lens, or film, in relation to the focal plane in order to record a sharp image on the film.

Fogging (Fog): Produces an overall veil of density on a negative or print, which does not form part of the image. It can be achieved by chemicals or exposing the sensitive material to light.

Form: Three-dimensional shapes with length, width, and depth. Balls, cylinders, boxes, and pyramids are forms.

Format: Can mean either the size of the camera or the size of the film. For camera sizes there are APS, 35mm, medium, and large formats. For film formats there are APS, 35mm, 645, 6x6, 6x7, 6x9, 4x5, 5x7, 8x10, etc...

Frame counter: Records and displays the number of exposed frames on the film.

Framing: Natural frames result in a more focused image that draws your eye naturally to the main point of interest.

Grain: Exposed and processed silver halide crystals and colored dyes. After processing they turn black or appear colored and form the miniature "grain" that makes up an image on a piece of film.

Grain focuser: Magnifies the negative grain structure by 10 to 25 times. This magnification allows you to focus the actual grain structure of the image. A grain focuser provides you with the sharpest focus you can get from a given negative.

Halation: Diffused ring of light typically formed around small brilliant highlight areas in the subject. It is caused by light passing straight through the emulsion and being reflected back by the film base on the light sensitive layer. This records slightly out of register with the original image.

Height control (enlarger) Adjusts the enlarger head height along the column.

Heliography: Early photographic process invented by Niepce, employing a polished pewter plate coated with bitumen of Judea.

Hot shoe: Metal or plastic fitting on the top of the camera that supports accessories such as viewfinder, rangefinder, or flash.

Hue: Name of the color (e.g. red, blue, yellow).

Image: Two-dimensional representation of a real object, produced by focusing rays of light.

ISO: The International Organization for Standardization (ISO) is a worldwide federation of national Standards bodies from around 130 countries, one from each country. ISO is a non- governmental organization established in 1947. The mission of ISO is to promote the development of standardization and related activities in the world with a view to facilitating the international exchange of goods and services, and to developing cooperation in the spheres of intellectual, scientific, technological, and economic activity. ISO's work results in international agreements, which are published as International

Standards. "ISO" is not an acronym, it is a word, derived from the Greek Isis, meaning "equal", which is the root of the prefix "iso-" that occurs in a host of terms, such as "isometric" (of equal measure or dimensions) and "isonomy" (equality of laws, or of people before the law).

JPEG: A standard for compressing image data developed by the Joint Photographic Experts Group, hence the name JPEG. Strictly speaking it is not a file format, it is a compression method used within a file format, such as the EXIF-JPEG format common to digital cameras. It is referred to as a lower resolution format, which means some quality is lost in achieving JPEG's high compression rates. Usually, if a high-quality, low-compression JPEG setting is chosen on a digital camera, the loss of quality is not detectable to the eye.

Latent image: The exposed but undeveloped image on a photosensitive surface.

LCD: Liquid Crystal Display, a low power monitor often used on the top or rear of a digital camera to display settings or the photo itself.

Leading Lines: Character of edges and lines. The eye is naturally drawn along lines and journeys through the image.

Lens: An optical device used to control and focus light.

Light meter: A light sensitive device used for evaluating the amount of light in a scene for exposure. There are four types: Incidental meter, reflective meter, flash meter, and spot meter.

Light table: Illuminated flat surface used to view negatives and other transparent or translucent materials.

Line: The most basic building block of formal analysis. Line can be used to create more complex shapes or to lead your eye from one area in the composition to another.

Linear perspective: Apparent convergence of parallel lines with increasing distance in a two dimensional image.

Loupe: Magnifying glass used to inspect photos or negatives.

Low key: Photograph in which tones are predominantly dark and there are few highlights.

Luminosity: Brightness of either a light source or a reflective surface.

Macro lens: Lens specially designed to give accurate resolution of a very near subject without the need for supplementary attachments. Sometimes, incorrectly, referred to as a micro lens.

Marquee Tool (selection): Different marquee tools allow selection of certain shapes, rows and columns.

Micro lens: Lens for microscopic photography. Not to be confused with a Macro lens.

Mode: The prime operating function of SLR cameras, e.g. manual mode, aperture priority mode, shutter priority mode, etc.

Negative: A processed piece of film where the image is reversed so that the shadows are light and the highlights are dark.

Negative carrier (enlarger): Supports the negative between the light source and the enlarging lens of an enlarger.

Panning: The act of following a moving subject with the camera while releasing the shutter.

Panorama: Picture presenting a continuous view of the landscape, produced either by using a panoramic camera or from a composite of several images.

Paper safe: Light-tight container for unexposed photographic papers, with an easy open positive closing lid.

Parallax: In rangefinder cameras, the difference between the image seen by the lens and the viewfinder. The discrepancy increases as the subject moves closer to the camera. This does not occur in SLR cameras.

Pentaprism: A prism in an SLR camera that allows the photographer to view the image while it is being focused.

Perspective: Relationship of size and shape of three-dimensional objects represented in two-dimensional space.

Photogenic Drawing: Original name given by William Fox Talbot to his earliest method of recording camera images.

Photogram: Pattern or design produced by placing opaque or transparent objects on top of a sensitive emulsion, exposing it to light and then developing it.

Photography: Literally writing or drawing with light (from the Greek words photos meaning light and graphos, writing). First suggested by Sir John Herschel to William Fox Talbot in 1839.

Pictorialist: Photographs that are a picturesque, decorative art in their own right and appeal to the viewer's sense of beauty.

Pinhole camera: A camera with a fixed aperture made by poking a hole in a piece of metal. Usually made from a small, enclosed container such as an oatmeal box or small tin.

Point of View: The level of the camera in relation to the objects. Can affect mood.

Polarizing filter: Colorless gray filter made from stressed glass. Polarizing filters are used over light sources or camera lenses to reduce or remove specular reflection from certain types of surfaces.

Positive: A photographic image in which the light areas correspond to light areas in the subject, and the dark areas correspond to the shadow areas in the subject. Also called a slide or transparency.

Primary colors: Three primary additive colors of the spectrum in terms of transmitted light. These colors are blue, green, and red. Although, in art terms regarding pigment, they are red, blue, and yellow.

Print: An image, normally positive, which has been produced by the action of light on paper or similar material coated with a light sensitive emulsion.

Processing: Sequence of steps whereby a latent photographic image is converted into a visible, permanent image.

Rangefinder: A camera with a viewfinder separate from the lens. Not an SLR.

Rayograph: Term coined by Man Ray and his friends for a picture made by placing directly on photographic paper (i.e. photograms).

Red eye: Effect encountered when light from a flash unit travels parallel to the lens axis during exposure.

Resin coated paper (RC): Printing paper with a water repellent base. RC Paper can be processed faster, require less washing, and dry more quickly than fiber based papers.

Rule of thirds: Compositional technique whereby the image area is divided horizontally and vertically into equal thirds by means of four imaginary lines. The main subject is considered strongly placed if it is positioned at the intersection of any two of these lines.

Safelight: A red or orange darkroom light that black and white photo papers aren't sensitive to.

Sandwiching: Combination of two or more negatives or film positives in the negative carrier or masking frame when printing or enlarging.

Shape: Created when lines are combined to form a square, triangle, or circle. Shapes can be organic (irregular shapes found in nature) or geometric (shapes with strong lines and angles such as circles, triangles, and squares).

Shutter: The mechanical device in a camera that controls the amount of time light is allowed to expose the film.

Shutter Speed: The shutter speed is the actual time that the shutter is open to allow light to hit the sensor. Shutter speed is usually measured in seconds. The smaller the number is, the shorter the shutter will be open. Longer shutter speeds are used for low light conditions such as shooting at night, or can give the effect of fast motion making objects appear blurry.

Shutter speed dial: Sets the shutter speed.

Silver salts: Chemical used in photo developers and treated photosensitive surfaces.

SLR: A camera that uses a mirror and prism to allow the photographer to see through the main lens.

Space: Area between and around objects. Increasing or decreasing the amount of space around an object affects the way we view that object.

Spotting: Retouching dust spots or other fine blemishes in a photographic image with a small brush. Usually done on prints.

Sprocket holes: Perforations on both edges of 35mm film, which engage with the teeth of the film transport mechanism.

Squeegee: Tool with rubber blades or rollers, used to squeeze water out of wet prints.

Stop Action: Using a fast shutter speed with corresponding f-stop to capture an action without blurring.

Stop bath: Chemical bath whose purpose is to stop development by neutralizing unwanted developer. This increases precision of development and prevents carry over of one chemical into another during development.

Stopping down: To decrease the size of aperture in a lens, e.g., to stop down from f3.5 to f16. Increases depth-of-field.

Stress marks: Black lines on a photographic emulsion caused by friction or pressure.

Subject: Person or thing being photographed.

Telephoto lens: Compact lens construction that provides a long focal length with a short back focus. Used to photograph distant objects to appear closer.

Test strip: Trial and error method of calculating exposure in photographic printing. A number of exposures are given to a strip of emulsion, over important areas of the image, to help judge the correct exposure in the final print.

Texture: Surface quality that can be seen and felt. Textures can be rough or smooth, soft or hard. Textures are often implied. For instance, a drawing of a rock might appear to have a rough and hard surface, but in reality is as smooth as the paper on which it is drawn.

Timer: Clock used to control processing.

Tone: Refers to the strength of grays between white and black. It relates to the brightness, lightness, and darkness of the subject and is determined by illumination.

Tongs: Hinged or squeezed implements used to hold photo paper throughout the developing process.

Tripod: A collapsible camera support with three legs.

Tripod socket: Located on the bottom of the camera to attach the camera to a tripod.

Underexposed: Allowing too little light to reach a photosensitive material. Results in a "thin" or light image with negative material and a "dense" or dark image with reversal material.

Value: Degree of light and dark in a design. It is the contrast between black and white and all the tones in between. Value can be used with color as well as black and white. Contrast is the extreme changes between values.

Vanishing point: Point at which parallel lines, viewed obliquely, appear to converge in the distance.

Viewfinder: An optical viewing device for framing and focusing an image in a camera.

Viewpoint: Position of the camera in relation to the subject.

Warm colors: Colors that, by association, suggest warmth, such as red, orange, and yellow.

Wetting agents: Chemicals which, when used in minute quantities, reduce the surface tension of water. They are usually added to the final wash of films and plates to improve draining.

Wide-angle lens: Lens with wide covering power. It has a focal length that is less than the diagonal of the film format with which it is being used.

Working solution: Liquid chemical that has been mixed and diluted for use.

Zoom lens: Lens that is constructed to allow continuously variable focal length within a specific range. The effective aperture and focus settings remain unchanged throughout such adjustments.

Unit 2 Description (Approximately 24 hours)

Unit #2: Open to the Elements

The goal of this unit is to get students out taking pictures, exposing them to current photography, other artists, and the work of peers. While students become *open* to the ideas in photography and art produced by others, they will begin to *open up* and share their own personal views and ideas through artistic expressions. With a focus on mastering the elements and principles of design that particularly apply to photography, activities will promote building confidence, through artistic risk taking, exploration, and the creative process. Though not restricted to outside subject matter, students will continue their exploration of *site* begun in Unit 1. They will become comfortable with the photographic treatment and creative exploration of natural elements and atmospheric conditions.

Overall and Specific Expectations

Unit 2 Overall Expectations

A1. The Creative Process: Students will apply the creative process to create a variety of art works, individually and/or collaboratively.

A2. The Elements and Principles of Design: Students will apply elements and principles of design to create art works for the purpose of self-expression and to communicate ideas, information, and/or messages.

A3. Production and Presentation: Students will produce art works, using a variety of media/materials and traditional and/or emerging technologies, tools, and techniques, and demonstrate an understanding of a variety of ways of presenting their works and the works of others.

B1. The Critical Analysis Process: Students will demonstrate an understanding of the critical analysis process by examining, interpreting, evaluating, and reflecting on various art works.

B2. Art, Society, and Values: Students will demonstrate an understanding of how art works reflect the societies in which they were created, and how they can affect personal values.

C1. Terminology: Students will demonstrate an understanding of, and use correct terminology when referring to, elements, principles, and other components related to the visual arts.

C2. Conventions and Techniques: Students will demonstrate an understanding of conventions and techniques used in the creation of visual art works.

C3. Responsible Practices: Students will demonstrate an understanding of responsible practices in visual arts.

Learning Goals:

By the end of Unit 2, students will:

- Recognize and be able to use and talk about the compositional elements and principles of design.
- Recognize and be able to use and talk about photographic shot techniques.
- Compare and critically analyze photographic works of art.
- Explore and experiment through the creative process in their own work.
- Be able to use various image manipulation techniques after the initial image is captured.
- Extend the simple photo to perceive 3-dimensions through Hockney's joiner technique.
- Apply photographic techniques to produce artworks which explore themes and make connections between themselves and the world around them.

Unit 2 Specific Expectations

A1.1. Students will use a variety of strategies, individually and/or collaboratively, to generate ideas and develop plans for the creation of art works.

A1.2. Students will use experimentation, reflection, and revision when producing a variety of art works in each of the following areas: drawing, sculpture, painting, printmaking, and mixed media.

A1.3. Students will document their use of the creative process in a portfolio and refer to this portfolio to reflect on how effectively they have used the creative process.

A2.1. Students will use various elements and principles of design to create art works that express personal feelings and/or communicate emotions to an audience.

A2.2. Students will apply the elements and principles of design as well as art-making conventions to create art works that communicate ideas, information, or messages, and/or that convey a point of view on an issue.

A3.1. Students will explore and experiment with a variety of materials/media, including alternative media and traditional and/or emerging technologies, tools, and techniques, and apply them to create art works.

A3.2. Students will demonstrate appropriate ways to prepare their art works for presentation.

B1.1. Students will identify and describe their initial reactions to a variety of art works, and explain the reasons for their reactions.

B1.2. Students will identify and describe the elements and principles of design used in their own art works and the works of others, and describe their effects.

B1.3. Students will explore and interpret a variety of art works, both historical and contemporary, to identify and describe their purpose and style, the materials used, and the meanings the works convey.

B1.4. Students will use a variety of strategies to identify and reflect on the qualities of their own art works and the works of others, and evaluate the effectiveness of these works.

B2.3. Students will identify and describe ways in which creating and/or analyzing art works has affected their personal identity and values.

B3.1. Students will identify types of knowledge and skills acquired in visual arts, and describe how they could be applied in a variety of careers and in various areas of study.

B3.2. Students will identify, on the basis of research, a variety of secondary and postsecondary pathways and careers related to visual arts and the education required for these careers.

B3.3. Students will describe, on the basis of exploration, a variety of personal opportunities in their community in cultural or other fields related to visual arts.

Key Questions:

1. How do the elements of design, principles of design, and shot techniques affect the composition of a photographic work of art?
2. How do past and contemporary artists explore mood, composition, and point of view through their art?
3. In what ways can an image be manipulated, while taking a picture, and while developing that photo, in order to express a message or theme?
4. How can an image be changed after its initial capture by the camera?
5. In what ways can a theme be explored that goes beyond art making technique?
6. How does the method of presentation affect an artwork?

Prior Learning:

C1.1. Students will use appropriate terminology related to elements and principles of design when creating and analyzing art works.

C1.2. Students will use appropriate vocabulary to describe techniques, materials, and tools when creating and presenting visual art works.

C1.3. Students will identify and describe the stages of the creative process and the critical analysis process.

C2.1. Students will demonstrate an understanding of a variety of techniques that artists use to achieve specific effects.

C2.2. Students will demonstrate an understanding of several conventions used in visual art works.

C3.2. Students will demonstrate an understanding of safe and conscientious practices associated with the use of materials, tools, and technologies in visual arts, and apply these practices when creating and/or presenting art works.

C3.3. Students will demonstrate an understanding of how the production and presentation of art works can affect the environment, and apply environmentally responsible practices when creating and presenting art works.

Instructional Strategies:

Lesson 1: Intro to Photographic Composition (4 hours / more if students take their own photos)

- Teacher lead discussion: Show example(s) and discuss the Elements and Principles of design and shot techniques with the students.
- Think/Pair/Share: In pairs or small groups, have students choose from a pile of large "artist of the month" images, calendars, posters, or famous photographs, and answer questions about composition (Appendix AWQ 20 2:1:1). Each group will then present their photo's composition to the class to discuss. Answer sheets can be collected to check for completion.
- *Composition Search: Elements, Principles, and Shot techniques Assignment.* This task will formally address the components of composition in photography. Students will complete their own composition search on the Internet and in magazines, to enter in their Visual Research Notebooks or to create their own booklets (Appendix AWQ 20 2:1:2). Alternatively, with film or digital, students can leave the classroom and take their own photos. The latter is perhaps more enjoyable, but will take more time. Additionally, with over 40 images, you may prefer to break the task up into two sessions, one for the elements and one for the principles and other shot techniques, spreading them out within Unit 2.

Assessment for and of Learning:

- **Composition Q & A:**
Formative check for completion of the sheet from the *Think/Pair/Share*.
- **Composition Search: Elements, Principles, and Shot technique**
 - Check for completion: image and description
or
 - Formal Checklist Evaluation:
 - 2 marks for each image and description x 43 = 86 marks
 - 4 marks for overall presentation: (neat / organized, grammar / spelling)
 - Total marks: /90
- **Weathered**
 - Teacher observation of requisite techniques.
 - Formal assessment of Written reflection.
 - Summative Rubric (Appendix AWQ 20 2:2:2)
- **Hockney Joiner**
 - Written critique of related cubist and collage artworks to be checked for completion and prompts verbal comments by the teacher.

Lesson 2: Weathered (7 hours)

- Show and discuss some example photographs that show weathering. Use the "artist of the month" images where possible. Other examples might come from:
 - Impressionist; Monet, or Canadian; Tom Tompson
 - time of day
 - turbulent skies
 - Ansel Adams; weathered rock and landscape
 - Dorothea Lange; social conscience
 - Sebastiao Salgado; worker documents
 - Steve McCurry; portraits
 - *20th Century Photography* (Golden, 1999) and *The Photobook* (Phaidon, 2000) reference an extensive sampling of historical to contemporary photographers.
- Demonstrate darkroom, digital, and manual altered negative and image techniques:
 - Dodging
 - Burning in
 - Spotting and Retouching
 - Borders
 - Distressing
 - Adding texture or grunge graphics
 - Hand colouring
 - Altered imagery (Cartwright, 2007; Michel, 2005)
 - Option: Students rotate through stations, each exploring a different technique in their Visual Research Notebook.
- *Weathered Assignment.*
 - Students take photos of subject matter or situations that express "weathered". Darkroom, digitally, or commercially processes, students will choose their best image (Appendix AWQ 20 2:2:1).
 - Students will create three photographs: one untouched, one that is touched up to look less weathered, and one that is distressed to enhance the weathered look.
 - Digitally, students can scan in or add textures to an image. They can fix and touch up photos. Weathered and distressed / grunge graphics are very popular.
 - Any one of the photographs can be hand-coloured.
 - The photo triptych can be mounted and matted traditionally or one work of art can
- Summative Rubric (Appendix AWQ 20 2:3:3).
- Peer Assessment Sheet for Hockney Joiner (Appendix AWQ 20 2:3:4).
- Formative check for learning by teacher during the critique exercise.

- **The Four Elements: Air, Water, Earth, Fire.**

- Formative check for learning by teacher will take place during the critique exercise.
- Summative Rubric (Appendix AWQ 20 2:4:3).

be created with all three images in a collage that expresses “weathered”.

- The assignment should include a written reflection in the Visual Research Notebook. Questions to stimulate response might be:
 - How does your initial image express “weathered”?
 - Comment on two elements and two principles evident in your composition.
 - How do the three images differ?
 - Which image do you prefer? Why?
 - Why did you choose your final method of presentation?

Lesson 3: Joiner Opens Out (7 hours)

- A nice introduction to David Hockney and his Joiner photographic compositions is viewing all or selected parts of the video, *Hockney at the Tate* (1988, 52 min.). His images are also widely available for a teacher generated presentation.
- Hockney / Cubist Critical Analysis Pair and Share.
 - Students begin working in pairs. Half of all the pairs receive a different Hockney Joiner artwork copy. Each pair in the other half of the class receives different images from Cubist artists, Henri Cartier-Bresson, or applicable images from the “artist of the month”.
 - Each pair fills out the *Critical Analysis Photo Pair and Share* worksheet (Appendix AWQ 2O 2:3:1) about their image. At first, they will omit the *extension / comparison* section.
 - Pairs join forming groups of four. Insure that each group will have one Hockney image and one “other” artist image to compare. As a group they will compare their two artworks and will complete the *extension / comparison* section of the worksheet.
 - Finally, groups will present their artwork pair to the rest of the class and a teacher-guided discussion will culminate the activity.
 - David Hockney’s works have strong links with Cubism, in that his motivation for producing them was to introduce three artistic elements that a single photograph does not have, *time*, *space* and

Performance Tasks for Evaluation:

1. Students will search for, and present, composition examples of; elements of design, principles of design, and photo shot techniques from various sources. (Appendix AWQ 2O 2:1:2).

2. Students will all be given the same theme, *weathered*, but will explore and personalize it through all the processes of image making to create a photo art work and an accompanying written reflection (Appendix AWQ 2O 2:2:1).

3. Students will compare, and develop a written critique of related artworks.

4. Students will create a Hockney Joiner collage of a place or situation that shows time, a certain narration, freedom from traditional photorealism, and personal meaning (Appendix AWQ 2O 2:3:2).

5. Students will create four photos representing The Four Elements in either a literal or symbolic way (Appendix AWQ 2O 2:4:1).

narrative. The first two of these are central Cubist themes. Hockney believed that a single photo expresses a single instant, and so cannot represent time or narrative. This is a debatable point that can be appreciated by looking at the photographs of Henri Cartier-Bresson.

- “Cubism was total-vision: it was about two eyes and the way we see things. Photography had the flaw of being one-eyed... My joke was that all ordinary photographs are taken by a one-eyed frozen man!” -David Hockney
- *Hockney Joiner Studio Assignment.*
 - This performance task sits within *Unit 2: open to the elements*, but extends from Unit 1 as it fits under *site* as well.
 - Students will create a “joiner” of a place or situation that has personal meaning to them (Appendix AWQ 20 2:3:2). The aim is not to produce a photorealistic effect, but rather a narrative montage which shows space and time.
 - While it is important to allow students creative freedom, it is helpful to be clear with expectations, and encourage students to plan before taking shots.
 - Image taking: Rolls of colour film can be commercially developed. Photos can be taken digitally with small resolution shots, then arranged digitally or printed and arranged. 5-10 shots can be printed in the darkroom and arranged. A darkroom alternative is cutting up the images from a contact sheet and arranging in the Visual Research Notebook.
 - 24-36 colour shots are taken in a grid-like fashion in one session and one position. They are processed and composed through montage, or a collage if students want to add mixed media elements.
- Small group critique.
 - The teacher outlines some basic guidelines by which to conduct the critique. The class is then broken down into groups of five or six students each. Student-made prints are distributed so that no group is holding any image made by a member of that group.

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The nature of this unit lends itself to choice for students, and this can be furthered by the teacher negotiating how far the extensions go.

Students can have some flexibility in how large and detailed they choose to work, and some may choose to further extend their joiners with multi media.

Extensions

Students can create a larger scale work collaboratively to display in the school, or create joiners specific to people or places in the school which could be used or yearbook or website purposes.

This allows for candid discussion without worrying about hurting anyone's feelings. One person in each group is designated or elected to take notes on the comments made by the group. The groups then discuss each of the images they hold. The teacher reconvenes the whole class and the secretaries from each group recount what was discussed. It is at this point that the instructor can attend to things that might have been missed or correct misconceptions (Barrett, 2005).

- During the small group discussion, peer evaluation of the works can be conducted.

Lesson 4: Four Elements (6 hours)

- Teacher led PowerPoint or Smart board presentation.
 - Ed Burtynsky: Canadian nickel tailings and some of his work with natural vs. man-made "elements".
 - Gijon Mili: Picasso painting with light, 1949.
 - Contemporary photographs using light (Brassi, Bill Schwab, David Baldwin).
 - Philippe Halisman: *Dali Atomicus*, 1948.
- Introduce the four qualities, four seasons, four humours, and four elements. Begin to stimulate ideas.

season	location	humour	body fluid	element
Spring	heart	sanguine	blood	air
Summer	liver	choleric	"yellow bile"	fire
Autumn	spleen	melancholic	"black bile"	earth
Winter	(various)	phlegmatic	phlegm	water

- *The Four Elements: Air, Water, Earth, Fire.* (Appendix AWQ 20 2:4:1)
 - The teacher can decide whether to do Option A or B or allow the students to choose.
 - Option A is more technical and literal. Students try to literally take shots of the 4 elements. This option is a technical project.

Support Materials & Resources

Books

- Barrett, T. (2005). *Criticizing photographs: An introduction to understanding images.* New York, NY: McGraw-Hill Higher Education.
- Cartwright, A. (2007). *Mixed emulsions: Altered art techniques for photographic imagery.* Beverly, MA: Quarry.
- Golden, R. (1999). *20th C photography: A complete guide to the greatest artists of the photographic age.* London, UK: Carlton Books Ltd.
- Michel, K. (2005). *The complete guide to altered imagery: Mixed-media techniques for collage, altered books, artist journals, and more.* Beverly, MA: Quarry.
- Phaidon (2000) (Publisher). *The photo book.* Phaidon Press Ltd.

This is an activity that could be about taking risks. These might be hard shots to get, the goal being that the student gets at least one good shot.

- YouTube has some great demos about how to try to do this.
- Appendix AWQ 2O 2:4:2 provides at least one example:
Photographing fruit dropping in water.
- Option B allows students to interpret the theme anyway they like and submit 4 photos, one for each title that loosely falls under that heading. This could be very open-ended and pushes students to think of alternate ways to interpret the theme. The introduction to elements as well as corresponding seasons, body locations, body fluids, and body humours, along with personalities, emotions, political, or environmental / ethical interpretations all offer different creative directions.
- Teacher lead class critique.
 - A teacher lead critique of student work will offer variation to the group critic conducted at the end of the previous assignment. Either is acceptable. The objective is to get students comfortable talking about their own work and that of their peers. The more opportunities offered to them, the easier it will become for them to think and analyze art / photography more critically.

Materials

- Examples of photographs that show weathering.
- Mixed media to extend the photographs and/or the Joiner collage.
- LCD projector, or similar way to project suggested images.
- Glue sticks
- Mounting supplies
- Bristol board
- Hand colouring photo markers or pigments.

Videos

- Benon, A. (Director and Producer), (1988). [BBC South Bank interview]. *Hockney at the Tate*. Image Entertainment. (52 min.)

Glossary of Terms

Balance: Created in a work of art when textures, colors, forms, or shapes are combined harmoniously.

Burning: Burning-in / Printing in. Providing extra exposure to an area of the print to make it darker, while blocking light from the rest of the print.

Contrast / Variety: Use of difference with several elements of design to hold the viewer's attention and to guide the viewer's eye through the artwork.

Cropping: Omitting parts of an image when making a print or copy negative in order to improve the composition of the final image.

Dodging: Selectively lightening part of a photo.

Emphasis / Dominance: Created in a work of art when the artist contrasts colors, textures, or shapes to direct viewing towards a particular part of the image.

Gradation: Tonal contrast range of an image.

Masking: A system of controlling negative density ranges or color saturation through the use of unsharp masks.

Midtone: An area in a print or scene that contains average values.

Mosaic: A composite made up from a patchwork of partly overlapping photographs.

Movement / Eye Movement: The way a viewer's eye is directed to move through a composition, often to areas of emphasis. Movement can be directed by lines, contrasting shapes, or colors within the artwork.

Overexposed: When light sensitive material is exposed to too much light resulting in film that is too dense to print or view well.

Principles of Design: Integrate the elements of design in different ways and build on one another. The Principles of Design are: Balance/Symmetry, Contrast/Variety, Emphasis/Dominance, Movement, Repetition, Pattern, Proportion, Scale, and Unity.

Proportion / Figure/Ground relations / Scale: Created when the sizes of elements in a work of art are combined harmoniously.

Repetition / Pattern: Repetition of a shape, form, or texture across a work of art. This can create eye movement and rhythm.

Retouching: After treatment carried out on a negative or print, in the form of local chemical reduction, local dye or pencil additions or airbrushing. The purpose is to remove blemishes on the negative or print.

Saturated color: Pure color hue, undiluted by other colors, white, or gray. The primary colors, red, yellow, and blue are saturated colors.

Shadows: Darkest areas in a photographic print.

Side lighting: Light striking the subject from the side relative to the position of the camera. It produces shadows and highlights to create modeling on the subject.

Silhouette: Photographic image in which the subject is seen as a solid black shape against a light background.

Soft focus: Definition of a diffused image. This can be achieved at the camera or enlarging stage.

Still life: Inanimate subject, either in the studio, or outdoors, normally arranged to make full use of form, shape and lighting.

Symmetry: Effect of an evenly balanced arrangement of visual information, such as pattern, on either side of a central division.

Unity: Created when the principles of analysis are present in a composition and in harmony. Some images have a complete sense of unity, while some artists deliberately avoid formal unity to create feelings of tension and anxiety.

Vignette: The effect from blocking the light at the edge of an image. Can be caused accidentally by a combination of wide-angle lens and filters, or on purpose as a deliberate effect.

Zoom tool (digital): Enlarges an image or area of an image to work in greater detail.

Unit 3 Description: (Approximately 24 hours)

Unit #3: Revealing a Secret

This unit examines the layers of possible meanings behind images. It challenges students to use a variety of types of imagery together to communicate complex ideas. Students are asked to think metaphorically, symbolically, psychologically, and intellectually about images and their meanings within different contexts in our culture. Activities, lessons, and discussions focus on current issues in art making and ways in which students can use images in their artworks to communicate ideas. The theme is broad and encompasses many sub-themes that allow the class and individual students to critically investigate relevant aspects or issues of contemporary visual culture. *Revealing a Secret* is a thematic starting point for students to develop their own conceptual ideas for artworks and self-expression in Unit 4 that follows. The goal of Unit 3 is to provide opportunities for students to express creative ideas, experience hands-on practical activities, learn new technical skills, as well as improve critical thinking and creative problem solving skills.

Overall and Specific Expectations

Unit 3 Overall Expectations

- A1. The Creative Process:** Students will apply the creative process to create a variety of art works, individually and/or collaboratively.
- A2. The Elements and Principles of Design:** Students will apply elements and principles of design to create art works for the purpose of self-expression and to communicate ideas, information, and/or messages.
- A3. Production and Presentation:** Students will produce art works, using a variety of media/materials and traditional and/or emerging technologies, tools, and techniques, and demonstrate an understanding of a variety of ways of presenting their works and the works of others.
- B1. The Critical Analysis Process:** Students will demonstrate an understanding of the critical analysis process by examining, interpreting, evaluating, and reflecting on various art works.
- B2. Art, Society, and Values:** Students will demonstrate an understanding of how art works reflect the societies in which they were created, and how they can affect personal values.
- B3. Connections Beyond the Classroom:** Students will demonstrate an understanding of the types of knowledge and skills developed in visual arts, and describe various opportunities related to visual arts.
- C1. Terminology:** Students will demonstrate an understanding of, and use correct terminology when referring to, elements, principles, and other components related to the visual arts.

Learning Goals:

By the end of Unit 3, students will:

- Extend their use of traditional camera techniques and darkroom technology or basic digital camera, capture, and image manipulation computer techniques, to understand and explore resolution and digital photo quality when working digitally and producing a high-resolution print.
- Explore camera settings and studio lighting used in high key and portrait photography.
- Become familiar with multiple software applications such as moviemaker, imovie, flash, PowerPoint, if working digitally.
- Become familiar with more advanced darkroom techniques when using traditional processing.
- Recognize and be able to use, create, and talk about symbols, icons, and clichés with personal, cultural, and recontextualized meaning.
- Review and extend their use of collage composition with manipulation, layering, and appropriated text and image.

C2. Conventions and Techniques: Students will demonstrate an understanding of conventions and techniques used in the creation of visual art works.

C3. Responsible Practices: Students will demonstrate an understanding of responsible practices in visual arts.

Unit 3 Specific Expectations

A1.1. Students will use a variety of strategies, individually and/or collaboratively, to generate ideas and develop plans for the creation of art works.

A1.2. Students will use experimentation, reflection, and revision when producing a variety of art works in each of the following areas: drawing, sculpture, painting, printmaking, and mixed media.

A1.3. Students will document their use of the creative process in a portfolio and refer to this portfolio to reflect on how effectively they have used the creative process.

A2.1. Students will use various elements and principles of design to create art works that express personal feelings and/or communicate emotions to an audience.

A2.2. Students will apply the elements and principles of design as well as art-making conventions to create art works that communicate ideas, information, or messages, and/or that convey a point of view on an issue.

A3.1. Students will explore and experiment with a variety of materials/media, including alternative media and traditional and/or emerging technologies, tools, and techniques, and apply them to create art works.

A3.2. Students will demonstrate appropriate ways to prepare their art works for presentation.

A3.3. Students will demonstrate an understanding of a variety of ways in which art works can be presented to reach different audiences.

B1.1. Students will identify and describe their initial reactions to a variety of art works, and explain the reasons for their reactions.

B1.2. Students will identify and describe the elements and principles of design used in their own art works and the works of others, and describe their effects.

B1.3. Students will explore and interpret a variety of art works, both historical and contemporary, to identify and describe their purpose and style, the materials used, and the meanings the works convey.

B1.4. Students will use a variety of strategies to identify and reflect on the qualities of their own art works and the works of others, and evaluate the effectiveness of these works.

B2.1. Students will identify and describe the function of various types of art works in past and present societies.

- Further compare and critically analyze multi-media works of art exhibiting photomontage or collage.

Key Questions:

1. In what ways do society, culture, ethics, and personal interest influence meaning in an artwork?
2. How can meaning be manipulated and recontextualized in an artwork?
3. How can compositional methods, contemporary art, and photo techniques affect photomontage and collage?
4. What restrictions, if any, are placed on the artist who works with appropriated and borrowed imagery?
5. In what ways can creative thinking be stimulated?
6. How can critical thinking be used to revise and reflect on work?

Prior Learning:

B2.2. Students will identify and describe ways in which various art works reflect the societies in which they were created.

B2.3. Students will identify and describe ways in which creating and/or analyzing art works has affected their personal identity and values.

B3.1. Students will identify types of knowledge and skills acquired in visual arts, and describe how they could be applied in a variety of careers and in various areas of study.

C1.1. Students will use appropriate terminology related to elements and principles of design when creating and analyzing art works.

C1.2. Students will use appropriate vocabulary to describe techniques, materials, and tools when creating and presenting visual art works.

C1.3. Students will identify and describe the stages of the creative process and the critical analysis process.

C2.1. Students will demonstrate an understanding of a variety of techniques that artists use to achieve specific effects.

C2.2. Students will demonstrate an understanding of several conventions used in visual art works.

C3.1. Students will identify legal and ethical issues associated with visual arts, and demonstrate legal and ethical practices when creating, presenting, and/or promoting art works.

C3.2. Students will demonstrate an understanding of safe and conscientious practices associated with the use of materials, tools, and technologies in visual arts, and apply these practices when creating and/or presenting art works.

C3.3. Students will demonstrate an understanding of how the production and presentation of art works can affect the environment, and apply environmentally responsible practices when creating and presenting art works.

Instructional Strategies:

Lesson 1: Visual Riddles (5 hours)

- *Socio/Cultural Hidden Meanings.* Images have associated and symbolic (hidden) meanings. These meanings are based on our cultural associations, uses, and past experiences. Discuss the contemporary ethical issues around photography as truth; what's real and what's imaginary. Combined photos and digital manipulation are used in photojournalism and presented to the world as real. Use images from Internet and the www.snopes.com website to review and talk about urban legends and stories that circulate via the Internet and email. Photo realist artists:

Assessment for and of Learning:

- **Visual Riddles**
- Conference with students about their ideas about what to bring in. This will allow opportunity for feedback and assessment of their understanding of the main idea.
- Anecdotal notes for technical and concept communication during presentation.
- **Full Disclosure**
- Formative assessment of Think/Pair/Share discussion through verbal feedback.
- Formative assessment of Visual Research Notebook entries through written teacher comments.
- Full Disclosure Rubric: Have students come up with rubric criteria. Insure that they correspond with the curriculum document Achievement Chart categories. Suggested criteria:
 - Knowledge and Understanding
 - Understands how the elements and principles are used in photomontage.
 - Thinking
 - Uses creative thinking to re-contextualize appropriated imagery.
 - Communication
 - Expresses an understanding of political and cultural contexts.
 - Expresses an understanding of copyright issues
 - Application

- Ron Mueck
- Steve McCurry
- Book of photo journal images: *100 photos that changed the world* (Sullivan, 2003).
- Explore how meaning is made through images.
 - Using example images of simple objects (tree, cork screw), the whole class brainstorms what the associated and symbolic meanings could be of individual objects one at a time. Discuss how the meanings change with the juxtaposition of one image with a second image.
 - Some examples are done as a class then in small groups.
 - Donald Lipski's changed meaning artworks.
 - René Magritte; plays with meaning: *Ceci n'est pas une pipe (This is not a pipe)* (1926).
 - Barbara Kruger's juxtaposed image\text pieces.
 - Students bring simple objects to class to take digital or film high key studio photos so that they can make a "changed meaning" basic photo collage.
 - High-key photography eliminates really dark tones, though still shows lots of mid-tone and detail. These are bright but not the same as over-exposed photos. It is about even lighting and exposure.
 - Conference with students about their ideas about what to bring in to class. This will allow opportunity for feedback and assessment of their understanding of the main idea.
- *Visual Riddle Studio exercise*
 - Digital: As a review and extension of Photoshop students will take high key photos of a few objects in the studio and capture them on a computer. Discuss and demonstrate selection tools and some photo manipulation tools. Students "clip-out" the object and arrange two objects together in Photoshop, in a way that communicates a new meaning. Students have time to PLAY and explore with the tools. They can crop for extreme close-ups, or repeat images, or overlap in interesting ways, etc... Working in pairs at each computer station allows for peer teaching.
- Application of skills in Contemporary photomontage techniques
- Makes connections between art and culture to expose a hidden agenda or challenge a cultural norm.
- Checklist for research presentation and artist fact sheet.
- **Private Whispers**
- Informal observation during brainstorming: Assess understanding in participation and questioning; teacher gives verbal feedback.
- Rubric for either Whispers or Private Mystery assignment. Choose one assignment based on the availability of facilities: *Whispers* for darkroom and *Private Mystery* for computers.
 - **Option A: Whispers**
- Peer assessment from group critique.
- Work with students to come up with rubric criteria that align with the curriculum document Achievement Chart categories. Suggested criteria:
 - Knowledge and Understanding
 - Knowledge of creative thinking techniques as explored in the VRN.
 - Understands the element and principles of composition in a layered, assembled image.
 - Thinking

- Darkroom: Students can process their best shot for each object (around three), cut out the objects and manipulate them with one another in collage to create a new meaning.
- Students will present their solutions to the class.

Lesson 2: Full Disclosure (6 hours)

- *Photomontage and issues with using found images.* Teacher will show artist examples and discuss the evolution of photomontage including discussion about political and cultural context.
 - Dada
 - Surrealism
 - Contemporary
 - Contemporary artists imbue images with new meaning by appropriating found images from their original contexts and reinterpreting and re-assembling them. Although not new, this current phenomenon is flourishing due to readily available virtual information and our culture's constantly evolving notions of art, ownership, and law.
 - Current public trends: Scrap booking and iPhoto are used by the general public to create custom books with the use of templates and prefabricated materials. The trend is spreading to custom school yearbooks.
 - Career connection: Photomontage and compositional skills are very employable as part of graphic design and photo illustration jobs.
- Teacher shares and discusses examples of artist's works that use found and appropriated imagery. Examples range through the following:
 - Jerry Uelsmann
 - Man Ray
 - Laszlo Moholy-Nagy
 - El Lissitzky
 - Salvador Dali
 - Kurt Schwitters
 - Raoul Hausmann
 - Gustav Klutis

- Use of creative thinking and inventiveness in solving the artistic problem.
- Use of processing skills to differentiate between private and public imagery.
- Communication
 - Uses conventions like symbolic imagery and ambiguity create and express interest.
- Application
 - Transfers knowledge and skills to new contexts in demonstrating the successful solution of a complex idea (like Secrets).
- **Option B: *Private Mystery***
- Peer assessment from group critique.
- Work with students to come up with rubric criteria that align with the curriculum document Achievement Chart categories. Suggested criteria are the same as for *Whispers*, above.
- **Altered image / Alter ego**
- Informal verbal teacher response to personal symbol exploration in VRN.
- Work with students to come up with rubric criteria that align with the curriculum document Achievement Chart categories. Suggested criteria:

- Hannah Hoch
- Scott Mutter
- Robert Rauschenberg
- Richard Hamilton
- John McHale
- Yutaka Inagawa
- Scott Treleaven
- Dave McKean
- As groups, students will Think-Pair-Share issues around using found and appropriated imagery and copyright issues. Students can reflect on the artwork examples they have seen by answering some questions in their Visual Research Notebooks. The teacher can check for learning and give written responses to the VRN entries.
 - What are found or appropriated images? (from other sources)
 - Why might using found or appropriated images be “risky business”? (Copyright laws)
 - Which are the appropriated images in the viewed artwork?
 - Why might the artist have chosen to use appropriate images instead of creating his/her own in the case of this artwork? (parody, criticism, social commentary)
 - Have the meanings of images changed when juxtaposed with one another? How?
- *Full Disclosure Studio Assignment*
 - Discuss *recontextualization* and *appropriation* as a class. Show examples of “Ad Buster” type spoofs and campaigns. <https://www.adbusters.org/gallery/spoofads>
 - Students will use found images and physically cut them up and rearrange the parts to communicate a new message. Students can have the option of changing the imagery on an ad to do a “Culture Jamming” ad spoof, or choosing a topic of their own. To expose a hidden agenda or challenge a cultural norm.
 - Teacher and students work together to come up with assessment criteria for the rubric before students begin to work on their compositions.
 - Students will watch the video *The Corporation* (2003) while working and searching for images. Another video, *The Merchants of Cool* (2001), would also work here.
- *Share your Research*
 - Knowledge and Understanding
 - Understands the element and principles of composition in a collage.
 - Thinking
 - Use of creative thinking and inventiveness in solving the artistic problem.
 - Use of planning skills to brainstorm and document ideas in a Visual Research Notebook.
 - Communication
 - Expresses the self through representation of symbols.
 - Uses in photographic conventions to create a basic portrait.
 - Application
 - Makes connections between self, the world through art and in a written reflection.
 - Transfers knowledge and skills of photography and collage techniques to a new concept of manipulated self-portrait.

- Students will research 2 artists/artworks that inspire them. The artists must use photomontage, layering of images, or overlapping imagery in some way.
- Each student does a quick 2 min. presentation to the class. They will printout a one-page info sheet on the artist, including a large example of the work, very short bio, and issues and conceptual ideas addressed by the artist.
- Post these up in the classroom.

Lesson 3: Private Whispers (5 hours)

- *Creative thinking.* Lecture and activities on ways of thinking (associative thinking, metaphorical thinking, elaboration, modification, questioning assumptions, mind mapping). In their Visual Research Notebooks, students will try the six thinking hats technique for exploring ideas based on the theme “Secrets” (reveal-conceal, mystery, secret garden, scandal, media, curiosity, hidden camera, codes, riddles, voyeurism, surveillance, the intimate, privacy issues, behind the mask, hidden stories, peep-hole, tell me your secrets, why do we as a society have such curiosity about the private lives of celebrities, mysteries and codes i.e. Da Vinci Code)
 - The White Hat: Facts and information.
 - The Yellow Hat: Positive. Probe value and benefit.
 - The Black Hat: Critical Judgment. Spot difficulties or dangers.
 - The Red Hat: Feelings and emotions.
 - The Green Hat: New ideas. Possibilities and alternatives.
- Two options are offered for the studio component of *Private Whispers*. Choose the one that best fits with the facilities at your school. *Whispers* works well for a darkroom, but can also be done digitally. The second option, *Private Mysteries* uses multimedia, so will need appropriate computer access.
- **Option A: Whispers Studio Assignment** (for digital or darkroom)
 - Students will take some carefully composed digital or film photos on an idea that they picked from the brainstorming. Showing student examples of this assignment may be helpful.
 - They will choose their best shot and add text to the photo in Photoshop in a way that contributes to their idea but does not

Performance Tasks for Evaluation:

1. Students will take high key photographs of objects and create new meaning by manipulating and juxtaposing the images as Visual Riddles in a new composition.
2. Students will document and reflect on the creative process of artworks using appropriated imagery.
3. Students will create an art composition for Full Disclosure exposing a hidden agenda or challenging a cultural norm.
4. Students will explore, record and present the artwork and technique of chosen artists in a brief written research paper.
5. Students will explore and reflect on the creative process in their Visual Research Notebooks.
6. Students will create artworks for Private Whispers integrating image and text or moving image and sound.
7. Students will use creative techniques to brainstorm and document ideas for symbols of facets of their personality in their VRNs.
8. Students will document their creative process through daily screen captures or document photographs.
9. Students will create a self-portrait artwork for Altered Image/Alter Ego, beginning with a basic photographic self-portrait, and using photography, collage, layering, and symbols to represent their personality.

dominate the image. This text can also be collaged onto developed prints. Text can be a found quote, related passage, or original. Issues about using text and image and technical issues such as font selection and typography are discussed.

- Solutions are critiqued in small groups and posted in the class.
- The composition and a journal reflection are collected for evaluation.
- **Option B: Private Mystery Studio Assignment** (for digital and multimedia).
 - “A photograph is a transaction between the private and the public that is negotiated through the taking of an image.”
 - Show and discuss examples of artists that explore similar themes.
 - Hitchcock
 - Arbus
 - Discuss the ideas of posting private photos on the Internet and issues around private vs. public, surveillance, photojournalism, and the paparazzi.
 - Students will create a very small sample multimedia artwork consisting of 3 to 5 layered images, text, sound, or spoken word around a concept following the themes “Private”, “The Intimate”, or “Voyeurism”. The images should fade into each other or animate/move in some way. The solution should communicate a complex idea and could visually represent the nature of thoughts. Students should explore symbolic imagery, non-literal metaphors, ambiguity, and experiment with how the hidden and partially hidden creates viewer interest. The goal is to use layered imagery to create intrigue, uncertainty, fascination, contradiction, and paradox. Presented, discussed in class.

10. Students will reflect on their creative and critical process through a written entry in their VRNs.

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For more information on the six thinking hats see DeBono, and do an Internet search for great visual examples.

Extensions

Lesson 4: Altered Image / Alter Ego (7 hours)

- This lesson continues to incorporate concepts investigate earlier in this unit, like photomontage, appropriation, symbolism, and recontextualization.
- *Symbols and icons*: Introduce the idea of personal symbols and the meaning that are attached to some objects and icons.
 - Totem animals from indigenous cultures or spirit guides.

- Animal Symbolism from different cultures including Native American Art.
- Sigmund Freud's models of personality. The psyche is made up of the id, ego, and the super-ego.
- Carl Jung's idea of psychological archetypes. In Jungian psychology, an inherited pattern of thought or symbolic imagery derived from past collective experience is present in the individual unconscious. These are innate and universal types (athlete, wanderer, dreamer, friend, helper, hero, inner child, trickster, wise one).
- The symbols and icons that artists have used:
 - Basquiat
 - Keith Haring
 - Graffiti artists
- Discuss clichés as a whole class. Give examples and explore alternate, more creative solutions. Could also be done as a think/pair/share. Most students get hung up on their first idea, so encourage brainstorming for more than one solution.
- Independently, in their Visual Research Notebooks, students will use previously suggested creative thinking techniques (mind-maps, association, metaphor, elaboration) to brainstorm symbols, icons, and characteristics of themselves. Stress avoiding clichés.
- *Review Collage / Design / Composition theory:* What keeps the viewer's attention? Review what makes a well designed Collage through examples:
 - Contrast in the elements of design to create interest and a focal point.
 - Emphasis on a strong primary focal point (or secondary focal points).
 - Space and depth created by variation in size, placement, colour or value, converging lines, and overlapping / layering.
 - Repetition of design elements such as line, shape, or colour to create visual movement, balance, and interest or unity through pattern.
 - Movement of the eye is guided by directional line, repetition, or progression in colour or value.
 - Asymmetrical balance is emphasized, while reviewing symmetrical and radial.
- If students need farther practice in recognizing strong collage compositions:

Support Materials & Resources

Books

- Cartwright, A. (2007). *Mixed emulsions: Altered art techniques for photographic imagery*. Beverly, MA: Quarry.
- Faris Belt, A. (2008). *The elements of photography: Understanding images and creating sophisticated images*. Burlington, MA: Focal Press.
- Herter, C., Frankel, L., & Lovett, L. (2005). *Photocraft: Cool things to do with the pictures you love*. New York, NY: Bullfinch Press.
- McKean, D. & Gaiman, N. (1998). *The sandman: The collected sandman dust cover, 1989-1997*. DC Comics
- Michel, K. (2005). *The complete guide to altered imagery: Mixed-media techniques for collage, altered books, artist journals, and more*. Beverly, MA: Quarry.
- Sullivan, R. (Ed.) (2003). *100 photographs that changed the world*. New York, NY: Life Books Time Inc.
- Tuttle, S. (2008). *Exhibition 36: Mixed-media demonstrations & explorations*. Cincinnati, Ohio: Northlight Books.
- Wallace, D. (Ed.) (2006). *Carte blanche: Photography 1*. Toronto, ON: Magenta Foundation.

- Have them work in small groups.
- Give each group three collage samples varying in compositional strength (could be copies of previous student works with names removed and permission obtained)
- Have groups rate them as poor, fair and good.
- They can present them to the class, explaining their choices.
- *Portrait photography.* Teacher demonstration of standard portrait lighting and camera set up. Students can take a roll of film or 24 digital portraits. Students can work in pairs to photograph each other. Student will choose the best self-portrait as a starting point for the following assignment. They will be aware that the portraits will be manipulated and changed throughout the assignment.
- *Altered Image / Alter Ego Studio Assignment.*
- This assignment allows for multiple options of a self-portrait as a physical collage or a digital project. Throughout, consider having students to do "screen captures" of their emerging work each day to keep a record of their progress. This is easy through digital images, but otherwise a Document camera works for keeping a record of the creative process.
 - Begin with students taking head shot of themselves.
 - Work in a large format at 11"x17" or 8"x10" at 300ppi, or with large photo paper. In the digital option, this will demonstrate to students what happens to the pixilation when low-resolution files from the Internet are enlarged. It is important to note that the huge files of 200-300 MB can be a challenge for some computers to handle. Adjustments may have to be made to accommodate computer capabilities.
 - The basic self-portrait is manipulated and changed by incorporating symbols of the many facets of the student personality. The self-portrait can be a head and shoulders or can be extended to the full figure. Multiple options:
 - Photograph symbolic objects, through Photoshop, cut them up and build a photomontage of a creature that symbolizes the many facets of your personality. Use objects and animals

Materials

- Classroom computers and computer lab
- Darkroom and traditional printing supplies
- Digital still, video, and film cameras for students to sign out (batteries, USB cords)
- Digital projector, speakers
- Glue sticks
- Mounting supplies
- Overhead projector, slide projector
- Paper cutter
- Photo studio lighting
- Photo postcards, artists and artwork examples (digital or real)
- Scanner
- Scissors
- X-acto knives

(photos of animal parts from a zoo trip, or a transparency of the a zoo animal as an overlay, or scanned or photographed metal or natural objects)

- Use transparent layers, layer masks, blending modes, and filters to build up a multilayered self-portrait.
 - Overlap with a portrait of a parent or mentor digitally or as a negative sandwich.
 - Include previous learning such as photograms.
 - Build a physical collage and take digital pictures of it, or parts. It could include physical objects, such as leaves, playing cards, small toys, or other found objects.
- Students can explain their choices in a written reflection in their Visual Research Notebooks.
 - Note: Dave McKean's works for some of *The Sandman* (1998) comic book covers can be viewed as examples. Altered Images books like Cartwright (2007) or Michel (2005) also contain suitable examples of photo collage.

Videos

- Achbar, M., Abbot, J. & Bakan, J. (Producer / Director / Writer). (2003). *The corporation* [documentary film]. Canada: Big Picture Media.
- Goodman, B. & Dretzin, R (Producer / Director / Writer). (2001). *The merchants of cool: A report on the creators & marketers of popular culture for teenagers* [Frontline documentary]. United States: PBS.

Websites

- Urban Legends (2010). Retrieved on April, 2010 from <http://www.snopes.com>

Glossary of Terms

Ambient Lighting: The light that is already present in the location where you plan to shoot. This light could be sunlight or indoor overhead lighting.

Blending modes: In digital image editing; are used to determine how two "Layers" are blended into each other. The default blend mode in most applications is simply to hide the lower layer with whatever is present in the top layer. However, as each pixel has a numerical representation, a large number of ways to blend two layers is possible. It may be applied with a painting or editing tool.

Broad: Occurs when the main light illuminates the side of the subject's face that is turned toward the camera.

Butterfly lighting: The main light is placed fairly high, directly in front of the face - aimed at the center of the nose. It casts a shadow shaped like a butterfly beneath the nose.

Cool Lights: Electronic flashes, much more powerful than the ones on your camera, but basically the same idea.

Defused Light: Softened light, with less shadows and more even coverage. A diffused light source is most commonly achieved by directing light through a translucent material, such as a diffusion shoot-through umbrella, a softbox, or a diffusion reflector panel.

Diffuser: Material that diffuses light. A diffuser may be a translucent material or a rough-surfaced reflective material, both of which scatter light's rays, thereby softening the light.

Direct light: Light shining directly on the subject and producing strong highlights and deep shadows.

Fill light: The light source that is used to "fill-in" the shadows cast by the main light. This source can be a flash unit, or simply a reflector that is directed on the subject to illuminate the shadowed areas and lessen the contrast.

Filter / gel: Thin piece of tinted or colored gelatin placed directly over the light source to alter the quality of the light's output. Gels will physically change the color of the light, whereas filters will modify its quality.

Gray Card: A uniformly gray card which reflects precisely 18% of the white light that strikes it (corresponding to the calibration of a reflected-light meter). It is uniformly white on the other side, which reflects 90% of the light.

High Key: An image that is mainly made up of light tones, which relatively few mid-tones or shadows.

Hot Lights: Traditional tungsten or Metal Halide Iodide (HMI) lights that burn continuously.

Layer masks: Layer masks are digital grayscale images. They are created with painting or selection tools. Painting with white reveals, and painting with black hides, a layer. Layer masks also define various levels of transparency. If you paint the mask in gray, the layer will appear semi-transparent.

Layer Opacity: Each whole layer can have different opacity settings, so some layers can be partially or completely transparent.

Layers: A Photoshop image file (.psd) can be made up of numerous independent layers that are overlaid on top of each other. Each layer can be edited without affecting any other layer.

Lens flare: Occurs when light is directed or refracted into the camera's lens. Some photographers will allow light to be reflected in their camera's lens for an intended glowing effect, but normally light spill is undesired. When using studio lighting to illuminate your subject, you can eliminate light spill by position your flash unit and accessories to not direct light back into your camera.

Low Key: Describes a mostly dark image, with few highlights.

Main light: The primary light used, which is typically the brightest in your setup, casting the most prominent shadows.

Montage: A composite picture made from a number of photographs.

Pixel: Picture Element. Digital photographs are comprised of thousands or millions of them; they are the building blocks of a digital photo.

PPI: A measurement of pixels per inch.

Reflectors: Material used to reflect light onto a subject. A flash reflector is a shiny surface situated behind the flash tube that reflects light in a specific direction.

Register: Exact alignment when overlaying separate images.

Resolution: Fine detail in an image. Also means "Resolving power." The number of pixels in a digital photo is commonly referred to as its image resolution.

Rim Lighting: Occurs when the main light is placed behind the subject so that the subject's face is completely in shadow, but there is a rim of light around the subject's head, like the corona in a full eclipse.

Scanner: A device that captures an impression of an object (commonly a photographic print or other flat document) and converts it into a digital image that can be edited and saved on a computer.

Short Lighting: Also called "narrow lighting." It occurs when the main light completely illuminates only the side of the subject's face that is turned away from the camera.

Side Lighting: Light falling on a subject from the side relative to the camera position.

Silhouette: A dark image outlined against a lighter background.

Soft Focus: A soft look achieved by bending some of the light from the subject so it is defocused while the rest remains in focus. Highlights are actually dispersed onto adjacent areas. The image still looks properly focused overall, but its components are just enough out-of-focus that they are softened. Lines are slightly fuzzy and small details seem to disappear.

Soft Lighting: Low contrast illumination.

Softbox: A box that fits over a flash head or tungsten lamp made of black sides, with white, gold or silver interior and a translucent front where light passes through. A softbox is most popular for its soft, even light and is used heavily in portrait photography.

Strobe: Although commonly-used to describe an electronic flash unit, especially one used in a studio, a strobe (short for "stroboscope" or "stroboscopic lamp") actually refers to an intermittently-flashing, extremely-short duration, bright light source.

Studio Lighting: Lighting set up in a room specially equipped for photography.

Three-Point Lighting: Standard lighting method using three separate light positions; the key, fill, and back lights.

Tripod: A pole on a base of three legs to which a camera can be attached, providing support that eliminates or reduces camera movement, useful for sharp images when using slow shutter speeds or to show blur from a moving subject. The height of the pole and of the individual legs can usually be adjusted. Various models have different characteristics.

Tungsten Light: A generic reference to standard, artificial room lighting (the light from normal household bulbs, for example, but not fluorescent lamps). It is produced by an incandescent electric lamp in which the filament is made of tungsten, a rare, metallic element having a high melting point.

Umbrellas: A lighting accessory that resembles a rain umbrella, used to soften illumination by bouncing or diffusing the light.

Unit 4 Description (Approximately 32 hours)

Unit #4: Uncover/Unfold/Unveil

This last unit has been designed to facilitate and showcase the progression of student learning in this course. Students will apply what they have learned so far in developing an individual artistic problem that interprets *Uncover/Unfold/Unveil*. The goal of this culminating unit is to give students the freedom to propose their own problem and apply their creative and critical thinking, as well as their previously learned artistic techniques, to solve it. This could be to uncover or reveal an issue, or unveil or peel back parts of themselves. Students are encouraged to use this visual statement to communicate an idea that is significant to them, and support it with a proposal and/or artist statement. They will complete the course with the organization and presentation of their accumulated portfolio of works and will participate in a student art exhibition to showcase their work to the public. The Culminating Task embedded within this unit is a Summative Performance, and should be weighted appropriately.

Overall and Specific Expectations

Unit 4 Overall Expectations

A1. The Creative Process: Students will apply the creative process to create a variety of art works, individually and/or collaboratively.

A2. The Elements and Principles of Design: Students will apply elements and principles of design to create art works for the purpose of self-expression and to communicate ideas, information, and/or messages.

A3. Production and Presentation: Students will produce art works, using a variety of media/materials and traditional and/or emerging technologies, tools, and techniques, and demonstrate an understanding of a variety of ways of presenting their works and the works of others.

B1. The Critical Analysis Process: Students will demonstrate an understanding of the critical analysis process by examining, interpreting, evaluating, and reflecting on various art works.

B2. Art, Society, and Values: Students will demonstrate an understanding of how art works reflect the societies in which they were created, and how they can affect personal values.

B3. Connections Beyond the Classroom: Students will demonstrate an understanding of the types of knowledge and skills developed in visual arts, and describe various opportunities related to visual arts.

C1. Terminology: Students will demonstrate an understanding of, and use correct terminology when

Learning Goals:

By the end of Unit 4, students will:

- Use the critical analysis process to critique and compare photo related artworks.
- Further recognize and explore successful qualities of an artwork through compositional elements, principles, and shot techniques that particularly relate to the theme, *Uncover / Unfold / Unveil*.
- Demonstrate an understanding of, and the difference between, an art proposal and an artist's statement, and be able to compose one or both.
- Make connections with learned art experiences and photo techniques in order to independently explore the creative process by suggesting and solving an artistic problem.
- Demonstrate an understanding of how to present a final portfolio and exhibit artworks to others.

Key Questions:

1. What determines a good photograph or artwork?
2. In what ways can standard photography be manipulated and challenged to explore it more broadly as an art medium?

referring to, elements, principles, and other components related to the visual arts.

C2. Conventions and Techniques: Students will demonstrate an understanding of conventions and techniques used in the creation of visual art works.

C3. Responsible Practices: Students will demonstrate an understanding of responsible practices in visual arts.

Unit 4 Specific Expectations

A1.1. Students will use a variety of strategies, individually and/or collaboratively, to generate ideas and develop plans for the creation of art works.

A1.2. Students will use experimentation, reflection, and revision when producing a variety of art works in each of the following areas: drawing, sculpture, painting, printmaking, and mixed media.

A1.3. Students will document their use of the creative process in a portfolio and refer to this portfolio to reflect on how effectively they have used the creative process.

A2.1. Students will use various elements and principles of design to create art works that express personal feelings and/or communicate emotions to an audience.

A2.2. Students will apply the elements and principles of design as well as art-making conventions to create art works that communicate ideas, information, or messages, and/or that convey a point of view on an issue.

A3.1. Students will explore and experiment with a variety of materials/media, including alternative media and traditional and/or emerging technologies, tools, and techniques, and apply them to create art works.

A3.2. Students will demonstrate appropriate ways to prepare their art works for presentation.

A3.3. Students will demonstrate an understanding of a variety of ways in which art works can be presented to reach different audiences.

B1.1. Students will identify and describe their initial reactions to a variety of art works, and explain the reasons for their reactions.

B1.2. Students will identify and describe the elements and principles of design used in their own art works and the works of others, and describe their effects.

B1.3. Students will explore and interpret a variety of art works, both historical and contemporary, to identify and describe their purpose and style, the materials used, and the meanings the works convey.

B1.4. Students will use a variety of strategies to identify and reflect on the qualities of their own art works and the works of others, and evaluate the effectiveness of these works.

3. How can photography and art be used to communicate a theme?
4. How can the critical process help you revise your artwork?
5. What are the most effective ways to present your work to leave a lasting impression?

Prior Learning:

Assessment for and of Learning:

1. Building Final Project Criteria:

- Assess understanding by participation and questioning.
- Teacher verbal feedback and comments to student responses on handouts.

2. Final Project Proposal:

- Checklist and mark breakdowns
- Peer review questions

3. Final Project and Artist Statement:

- Progress report, checklist
 - Project Rubric: Work with students to come up with rubric criteria that align with the curriculum document Achievement Chart categories.
- Suggested criteria:

- Knowledge and Understanding
 - Understands the element and principles of composition in the final artwork.
- Thinking
 - Use of creative thinking and inventiveness in proposing and solving the artistic problem.
 - Use of planning skills to brainstorm and document ideas in a Visual Research Notebook and

B2.1. Students will identify and describe the function of various types of art works in past and present societies.

B2.3. Students will identify and describe ways in which creating and/or analyzing art works has affected their personal identity and values.

B3.2. Students will identify, on the basis of research, a variety of secondary and post secondary pathways and careers related to visual arts and the education required for these careers.

B3.3. Students will describe, on the basis of exploration, a variety of personal opportunities in their community in cultural or other fields related to visual arts.

C1.1. Students will use appropriate terminology related to elements and principles of design when creating and analyzing art works.

C1.2. Students will use appropriate vocabulary to describe techniques, materials, and tools when creating and presenting visual art works.

C1.3. Students will identify and describe the stages of the creative process and the critical analysis process.

C2.1. Students will demonstrate an understanding of a variety of techniques that artists use to achieve specific effects.

C2.2. Students will demonstrate an understanding of several conventions used in visual art works.

C3.1. Students will identify legal and ethical issues associated with visual arts, and demonstrate legal and ethical practices when creating, presenting, and/or promoting art works.

C3.2. Students will demonstrate an understanding of safe and conscientious practices associated with the use of materials, tools, and technologies in visual arts, and apply these practices when creating and/or presenting art works.

C3.3. Students will demonstrate an understanding of how the production and presentation of art works can affect the environment, and apply environmentally responsible practices when creating and presenting art works.

develop an effective, thorough proposal.

- Communication
 - Expresses successful printing and art-making techniques.
 - Uses photographic conventions to successfully develop the theme of *Uncover / Unfold / Unveil*.
- Application
 - Makes connections between self, the world and art in a written artist's statement.
 - Transfers knowledge and skills for an overall impact of an effective, complete, neat presentation.

4. Portfolio:

- Student / Teacher Conferencing
- Portfolio Rubric:
 - Knowledge and Understanding
 - Understands the element and principles of composition.
 - Understands the concepts of relevant media and technical skills.
 - Thinking
 - Use of creative thinking, inventiveness, and experimentation

Instructional Strategies:**Lesson 1: Final Project** (16 hours)

- **Lesson on building final project criteria.**
Students can use their posted examples of artists works that they presented in Unit 3 and the images seen in class so far, to formulate criteria for what makes a good photograph or photo / video collage. They can answer questions from a handout in a Think/Pair/Share strategy to formulate their opinions. Questions will ask why some artworks are more successful than others, based on:
 - Technical qualities
 - Conceptual ideas
 - Emotional components
 - Personal connections
 - Social connections
 - Spiritual connections
 - Intellectual connections
 - Psychological connections
- In a teacher directed class discussion, students will co-create the criteria on which to base the rubric for this final project.

- in solving the artistic problem.
 - Use of planning skills to work through ideas.
- Communication
 - Uses of photographic conventions to reflect and critique.
 - Visual and verbal expression through specialization and personalization.
- Application
 - Makes connections between self and the world through art.
 - Transfers photo and art knowledge and skills through portfolio completion and quality.

5. Final Exhibition:

- Teacher feedback
- Checklist

Performance Tasks for Evaluation:

1. Students will develop, present, and submit a written proposal of their final project under the theme *Uncover / Unfold / Unveil*.
2. Students will explore, document and reflect on the stages of their creative process in their Visual Research Notebooks.
3. Students will create a culminating work that explores the unit theme of *Uncover / Unfold / Unveil* connecting in some way to the course theme, *Exposure*. The work should be personal, unique, and

- **Project Proposal.**

- The teacher will provide a Final Project handout outlining the proposal, the project, and the artist statement. Examples of proposal/artist statements (perhaps from previous students, with permission) will be shared and discussed.
- The students must formulate an artistic problem under the theme of *Uncover / Unfold / Unveil* and propose how they will solve it.
- Students will brainstorm and record research and exploration of multiple ideas in their Visual Research Notebooks.
- Students will research and write a project proposal. Each student should submit a 1-2 page written proposal prior to art production. Proposals should be clear, concise, and easy to understand. They should outline what will be made, why it is being made, and what the work is exploring.
- Proposals should include a discussion that considers all relevant aspects of the following:
 - *What: Concept or subject matter.* What is the theme or subject you are exploring? What are the underlying ideas behind the project? What kinds of questions does the work address? How does the work relate to art history or contemporary practice? How does the work contribute to an understanding of contemporary society? What other artists are working with similar ideas and media?
 - *Why: Intention.* What is the intention of your work? Is it to inform, persuade, challenge, change, educate, bring to consciousness, raise awareness, to act as a catalyst, to mobilize a community, to delight, amuse, to produce a space for aesthetic contemplation?

exhibits their learned skills and techniques from the course.

4. Students will modify and submit an artist's statement as a description, personal reflection, and written critique of the final project. This could be combined with the project proposal or done separately.
5. Students will compose and assemble an accumulative portfolio of course work that they will be able to present, describe, discuss, and critique verbally and in writing. Here, students will show comprehensive evidence of their artistic development and learning growth throughout the course.
6. Students will contribute a finished, labeled artwork to the final exhibition that they will help to organize and present to the public.

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A variety of materials and options for all of the major works contained within this final unit are meant to allow students the opportunity to make personal connections between what they have learned thus far, and to create these final pieces as a reflection and revision of this.

Extensions

If facilities and expertise allow, student work can be posted online in a gallery, or can be bound into an exhibition book. They can either be printed and bound at the school, school board, or through a local print shop. Images can also be used for fund raising calendars, mouse pads, or greeting cards.

Support Materials & Resources

Learning Goals:

By the end of unit 4 students will be able to:

- Independently explore and resolve an artistic problem through the use of the creative

- *With: Technique and materials.* What will the work consist of and look like? What materials will be used?
 - *How: Purpose of technique or materials.* How is the content shaped, emphasized, or contradicted by the form?
 - *Where: Site-specificity.* This is a discussion of the physical space the piece inhabits. If your piece is installed outside the classroom, consider locations that resonate with meaning.
 - *Mood of the piece.* What emotion is intended in your artwork?
 - Proposals and preliminary sketches and ideas will be presented to the class and submitted to the instructor. The rest of the class will complete simple peer review questions (based on the proposal criteria above) for each proposal that will be given to the presenters for feedback.
- process, using advanced photo techniques and learned art experiences.
 - Research and develop a themed based project which solves an artistic problem on their own.
 - Use critical thinking and contemporary art theory terminology to discuss their own artworks and the work of others, in a clear and concise manner.
 - Believe in their power of persuasion, their ability to make a difference, and the importance of their own auditory, textual and visual voice.
 - Further recognize and explore successful qualities of an artwork through compositional elements, principles, and shot techniques, through the thematic lens *Believe*,
 - Demonstrate an understanding of, and the difference between, an art proposal and an artist's statement, through the composition of one or both.
 - Demonstrate an understanding of *Persuasion* in how to present a final portfolio, present ideas about the purpose of art, and communicate ideas to the public through a student organized student art show.

Key Questions:

1. What ideation techniques have you developed over this course that work best for you? How has your creative process changed over the course?
2. What are the most effective ways to present your work to leave a lasting impression and what effect does this have on society?
3. How is critical process used to determine the value of a photo,

- **Final Project Assignment**

- This is planned as both an in class and independent project. Make use of the darkroom and computer lab schedule to keep all students working.
- Students will use multiple images (5 or more) in an appropriate medium of their choice to create a complex visual statement/exploration based on some part of the theme, *Uncover / Unfold / Unveil*.
- Students can choose to use traditional darkroom printing, digital photomontage, multimedia type formats, projection or any mixture of these or hybrid types of media (black & white, colour, digital prints, slides, overheads). Consider collecting digital submissions as PSD files with layers showing all corrections and alterations, and including the original file.
- The final artwork can use text and sound but must use multiple images to express a unified conceptual idea. Unity of the final artwork and strength of exploration of a complex idea is important.
- This is an individual artwork, but students may work together to work with new technologies.
- Artworks do not *have* to be mounted but should be presented in a professional way.

and how can it help you revise your artwork?

4. What determines a good photograph or artwork?
5. In what ways can standard photography be manipulated and challenged to explore it more broadly in terms of theme and medium?

Prior Learning:

At this point, students should have a good understanding of both the creative and the critical analysis processes, and be competent in a variety of ways in which to use their technical and aesthetic expertise to convey meaning, and to understand how work must be presentable to a variety of audiences.

Assessment for and of Learning:

- **Jig-saw Worksheet:** Check for understanding through question and answer during the presentation and submission of the jig-saw worksheet, of the marginalized group and relevant artist/photographer.
 - **Building Final Project Criteria:**
 - Assess understanding by participation and questioning.
 - Teacher verbal feedback and comments to student responses on handouts.
 - **Final Project Proposal:**
 - Checklist and mark breakdowns
 - Peer review questions
 - **Final Project and Artist Statement:**
 - Progress report, checklist
 - Project Rubric: Co-create rubric criteria with students that aligns with the Achievement Chart categories.
- Suggested criteria:
- *Knowledge and Understanding*
 - Understands the element and principles

- **Artist's Statement.**

- Students can create an Artist's Statement to accompany the final project. The students can modify the initial project proposal after the completion of the project to create the Artist's Statement.
 - A written artist's statement accompanies an artwork or a body of work. It provides the viewer with insight into the artist's ideas, concepts, and motivations. The primary focus is to increase the reader's interest in the art, which usually means helping them understand the reasoning behind the art as well as some of the methods used in its creation. Artist's statements are an important aspect of an artist's professional life because they are used to promote their work to gallery owners, museum curators, photo editors, art journals, and the general public. A clear and intelligent artist's statement will represent a thoughtful and deliberate artist.
- Students should include all documentation regarding how small group brainstorming and help from peers assisted in further development of ideas about the art concept.
- Note: Alternately, one document can be submitted as both the proposal and artist's statements.

of composition in the final artwork.

- *Thinking*

- Use of creative thinking and inventiveness in proposing and solving the artistic problem.
- Use of planning skills to brainstorm and document ideas in a Visual Research Notebook and develop an effective, thorough proposal.

- *Communication*

- Expresses successful printing and art-making techniques.
- Uses photographic conventions to successfully develop the theme of *Believe*.

- *Application*

- Makes connections between self, the world and art in a written artist's statement.
- Transfers knowledge and skills for an overall impact of an effective, complete, neat presentation.

4. **Portfolio:**

- Student / Teacher Conferencing

Lesson 2: Portfolio (8 hours)

- A final photography portfolio will be submitted at the end of the course. Students are expected to draw from the current course work to compile the final portfolio. The format will be agreed upon by the teacher and student:
 - Digital portfolio
 - Art folder / envelope
- Ideally the portfolio is an ongoing endeavor that will have been developed throughout the course so that students are not addressing it for the first time in Unit 4. The amount of time required here will depend on whether this is the case.
- The Solargram from Unit 1 can be completed at this point and included in the portfolio.
- The final portfolio will include self-evaluation by the student. It will be evaluated by the teacher through interview and a rubric for completion, level of understanding, and quality. See assessment & evaluation strategies.
- The teacher will need to schedule portfolio conferences with the students. Approximately 10-15 minutes will be needed per student. It can be organized ahead of time and perhaps worked into the rotation schedule. It will take approximately 1-2 weeks of class time to conference with a class. If time is limited, students may submit a written artist's statement about their body of work that will be assessed instead of the teacher-student conferences.

- Suggested criteria for evaluating the Portfolio Rubric:
 - *Knowledge and Understanding*
 - Understands the element and principles of composition.
 - Understands the concepts of relevant media and technical skills.
 - *Thinking*
 - Use of creative thinking, inventiveness, and experimentation in solving the artistic problem.
 - Use of planning skills to work through ideas.
 - *Communication*
 - Uses of photographic conventions to reflect and critique.
 - Visual and verbal expression through specialization and personalization.
 - *Application*
 - Makes connections between self and the world through art.
 - Transfers photo and art knowledge and skills through portfolio completion and quality.

5. Final Exhibition:

- Teacher feedback

Lesson 3: Final Exhibition (8 hours)

- If it not feasible for whatever reason to have an art show, a page in the yearbook, a digital gallery on the school website, or some alternate form of display would still be beneficial. It is valuable for students to experience the preparation and organization of a group exhibition in which they can display their artwork, no matter what the venue. While the student exhibition component has been placed at the end of this course, it can alternately be placed elsewhere within the term. It may be prudent to align the photo / art exhibition with other arts (music, drama, or dance) events established by the school or greater community. A grand presentation involving more students will attract more parents, friends, and ultimate support from the school and community.
- The teacher can decide whether each student submits one work or more than one. This might depend on numbers and whether the exhibition will showcase a more substantial body of senior work.
- Artworks are matted and framed if possible. An accompanying display card is completed for each work.
- Students can contribute to the planning and organization of the final exhibition that will include some or all of the following:
 - Advertisement
 - Exhibition postcards
 - Art/photo department created greeting cards (fund raising)
 - Art auction (fund raising)
 - Art demo / exploration stations
 - Art vending machine (fund raising)
 - Art matting and framing
 - Curation: planning, set up, and take down.
 - Opening food and beverages.

- Checklist

Performance Tasks for Evaluation:

1. Students will share their knowledge of a group marginalized or distorted through photography over time, with emphasis on one relevant, current artist, through group research and presentation.
2. Students will develop, present, and submit a written proposal of their final project based on the theme *Believe*.
3. Students will explore, document and reflect on the stages of their creative process in their Visual Research Notebooks. Students will create a culminating work that explores the unit theme *Believe* connecting in some way to the course theme, *Persuasion*. The work should be personal, unique, and exhibit the skills and techniques learned throughout the course.
4. Students will modify and submit an artist's statement as a description, personal reflection, and written critique of the final project. This could be combined with the project proposal or done separately.
5. Students will compose and assemble an accumulative portfolio of course work that they will be able to present, describe, discuss, and critique verbally and in writing. Here, students will show comprehensive evidence of their artistic development and learning growth throughout the course. This may be traditional or digital, or a combination of both.
6. Students will contribute a number of finished, labeled artworks to the final exhibition that they will take primary responsibility in to organizing and presenting to the public.

DI

- This entire unit is designed to allow for personal choice, and the utilization of specific interests, skills, and knowledge on which individual students have focused.
- For the portfolio\anthology of work, the presentation format should echo the students personal strengths and interests, as well as the work it contains.

Extensions

- Pair with your local artists associations, community groups, and\or elementary school(s) to be involved in your arts night, or art show.
- Individual students may extend the idea of portfolio or anthology, by creating their own online gallery, self published book, or other creative means to share their work with a larger audience.
- A collaborative effort could create a more lasting online gallery with images from the art shows and\or portfolios, and update and add to this each year. This is often easy to do through the schools website, or free hosting services.
- Keep an eye out for local contests and art shows that feature student work. Library's, local councils, malls, council chambers, and more, are often also receptive to the idea of starting one, if they are not doing it already.

Support Materials & Resources**Books**

- If creating a traditional portfolio, there are many excellent books, magazine articles and resources available on bookbinding, altering books, and portfolio construction.
- Hirsch, R. (2008). *Seizing the light: A social history of photography*. McGraw-Hill.

- Ministry of Education (2010). *The Ontario Curriculum, Grades 11 and 12, The Arts*. Retrieved from <http://www.edu.gov.on.ca>
- Roukes, N. (1982). *Design Synectics*. Worcester, MA: Davis Publications.

Materials

- Computer and LCD projector or Smartboard, or computer prints of artwork.
- Computer lab for research and digital work.
- Darkroom for traditional photo work.
- Lighting studio set up for studio photography.

Videos

- Hovde, E. & Meyer, M. (Director) (1999). *The Photographic Age, 1935-1959* [Documentary film, Episode 2] in *American Photography: A Century of Images*. USA: PBS. (60 min.)
- Hovde, E. & Meyer, M. (Director) (1999). *Photography Transformed, 1960-1999* [Documentary film, Episode 3] in *American Photography: A Century of Images*. USA: PBS. (60 min.)

Websites

- There are many excellent examples of artists statements and portfolios available online, and these can be selected and shown by the teacher, or this can be a research task for students independently.

Glossary of Terms

Taking Ownership: Name Photo Collage An Introduction to the Visual Research Notebook

Materials:

Visual Research Notebook/sketchbook
Photographs of you
Photographs of object and places that represent you
Flat, found materials which represent you
Magazine or found photos of letters in your name
Scissors or matt knife with old magazine to cut on
Glue stick
White glue for heavier objects
Mod Podge for sticking and protecting.

Other suggestions:

Clip art
Vintage photographs
Sheet music
Magazine clippings
Varied papers
Labels
Old letters and documents
Discarded textbooks
Maps
Wallpaper
Acetate
Scrap fabric
Buttons
Old jewelry components
Game pieces
Keys
Beads
Ribbon and fibers
Feathers
Scrap-booking chalk
Rubber stamps and inks
Acrylic paint
Pastels
Colored pencils

1. **Challenge:** You are going to make your first entry in your Visual Research Notebook. It will be your first name.

1. **Imagining and Generating:** Begin with a mind map of the four aspects of a person: physical, emotional, intellectual, spiritual. Brainstorm as many ideas as possible under each category about yourself. This will get your creative juices flowing. Then brainstorm ideas on how you will combine photography and collage to create a name page. Think of ways to make your Name page completely unique. Consider collage with images and letters throughout, or solid background with collaged letters, or solid letters with collaged background, or another variation that you can come up with.

1. **Planning and Focusing:** You can make loose thumbnail sketches of your ideas on the second page of your VRN. Leave the first page for the finished work. Choose your direction. Will you need computer images, computer prints of your own photos of images or letters, old photographs you have (or photo copies of them), magazine images or letters? One idea, but not the only one, might be to search out the letters of your name in the environment, either found letters on signs, or found letters made by objects in the environment, such as a swing set makes an "M". What kinds of found objects or paper will you include (pick objects that will lie flat)? How will you assemble your collage? Will it be all manual or will you combine with computer/Photoshop generated collage?

1. **Exploring and Experimenting:** Gather your supplies. They will depend on what you decide to do. (Collage techniques in Appendix 2)

Collage suggestions: *There are no rules.*

Cut and torn edges,	Mix in other art media,	Transparent/translucent and
Juxtaposition,	Recycled materials,	opaque,
Vary directions,	Layered and busy or minimalist and	Varied textures,
Images and text,	carefully planned,	Overlapped, lined up and spaced,
Sewn or embroidered components,	Stamping / mono printing	Repetition and variation,
Transfers / transfer tattoos	Embossing	Rule of threes,
Cutting	Drawing	Focal point

1. ***Producing Your Work:*** Arrange, compose layout. Incorporate identifying information into your collage: full name, course and grade. Glue each piece into place. Use the glue stick where you can. Use white glue, heavy body gel medium or Mod Podge for heavier materials. Allow composition to dry. Apply several layers of decoupage or acrylic gel medium (Mod Podge) to seal and protect your collage.

Due Date: _____

Collage Treatments How To...

Set stations up around the room, divide the students into groups, and have them try each of the techniques. They can use the actual products in their collages, or simply glue them into their Visual Research Notebooks for future reference. The more variety of materials, the more interesting their work will be. Ask colleagues to keep magazines, calendars, tissue papers, etc., for art recycling.

Marbling

Materials:

- Shaving cream (foam and cheap)
- Tempera paint (or liquid watercolors)
- Paper Plates
- Brushes,
- Combs
- Cardboard
- Sponges (for clean up)

Procedure:

1. Layer about 1 inch of shaving cream onto a paper plate. Level it out with a piece of cardboard.
2. Paint water-based paint directly on top of the shaving cream. Use different compositions like concentric circles, stripes, half moons, etc.
3. Using a toothpick, swirl the paint. Do not push it down deep into the shaving cream. The paint should stay on top.
4. Write your name on the back of the paper. Lay paper on top of the design and press down slightly. Pull the paper off. Allow it to dry
5. Use the piece of cardboard to squeegee off the excess shaving cream.
6. Reuse the shaving cream until it gets dirty. If it needs replacing, wipe off the plate with a paper towel, put the paper towel in the garbage, and reapply shaving cream onto the plate.

Mono-printing

Materials:

- Styrofoam plates or trays, small
- Blunt pencil
- Printing ink or Tempera paint
- Rubber brayer
- Printing paper or drawing paper, Cut in 3"x 3" squares
- Teaspoon

Procedure:

1. Trace the parameter of the paper onto a foam plate/tray.
2. Write your name on back of paper.
3. Draw your image onto the plate/tray.
4. Depress the design with a blunt pencil.
5. Roll the brayer onto a glass sheet with ink/paint rolled out on it.
6. Roll the brayer over your design on the foam plate/tray.
7. Line up the paper square over the foam plate.
8. Rub the back of the paper with the back of the spoon, or a dry, clean brayer. Be careful not to move the paper.
9. Gently peel off the paper. Allow to dry.

Foil Embossing

Materials:

- Heavy aluminum foil or tooling foil, cut in 3"x 3" squares
- Thin drawing paper or tracing paper, cut in 3"x 3" squares
- Magazines or newspapers, to work on
- Dull pencils, or wooden clay tools, or popsicle sticks with one end sharpened
- India ink
- Brush
- Paper towels
- Water jar

Procedure:

1. Sketch image / design on paper square.
2. Place the foil on pad of newspaper or a magazine.
3. Trace image onto the foil with a blunt pencil or tool.
4. Use some thin lines, build some thick lines, and use some pattern.
5. Turn foil over and continue reverse-side tooling—pushing in to accent the pressed design.
6. Paint with India ink and carefully wipe off with paper towel, leaving black in the lines. Put the paper towel in the garbage.

Photocopy Transfer

Materials:

- Photocopied images; smaller than 3"x 3" and enough for all the students. They should be clear with good contrast.
- Drawing paper cut in 3"x 3" squares. Alternatively, a page(s) in the VRN can be used.
- Clear acrylic gloss or matte medium.
- Heavy cardboard pieces
- Brushes
- Water jar

Paper towels

Procedure:

1. Select a photocopied image.
2. Apply the acrylic medium to the surface on which the photocopy will be applied. Either the 3"x 3" paper or the VRN.
3. Apply the acrylic medium to the surface of the photocopy.
4. Apply the photocopy to the paper or VRN, face down.
5. Use the cardboard to rub the back of the photocopy from the middle toward the edges. Press gently. Wipe any excess medium from the surface with a paper towel.
6. Moisten finger with a little water and rub the surface of the photocopy, gently.
7. Wait for a few minutes. Allow to dry.
8. Gently lift and peel photocopy paper off the surface. If some of the ink is lifting, then leave a little longer. A thin film of paper will remain.
9. Rub surface gently with moistened fingers. The paper will begin to pill off. Continue rubbing until all the paper film is removed. The ink will be exposed on the surface. For small images, float in a tray, for very large images on mac-tac, a wet sponge works well. The warmer the water, the faster the paper disintegrates**.

***This same process can be done into clear packing tape or mac-tac, and is instant, as it doesn't need to dry. The image just needs to be burnished (rubbed hard with the back of a spoon or scissor handles...) to prevent areas not being in full contact.*

***Note, when rubbing off the paper, have students use a tray, which can then be drained, and the paper thrown out, or have them rub over the garbage can. A lot of paper fibers going down the sink will clog the drain.*

Appendix AWQ 2O 1:2:3 - Visual Research Journal Rubric

KU: /10	T: /10	C: /10	A: /10	Total: /40								
Level	Level 1 (50-59%)			Level 2 (60-69%)			Level 3 (70-79%)			Level 4 (80-100%)		
Criteria	<i>Passing but much below provincial standard</i>			<i>Approaching provincial standard</i>			<i>Meets provincial standard</i>			<i>Surpasses provincial standard</i>		
Knowledge & Understanding <i>Visual Research Journal use</i>	Demonstrates limited knowledge of VRJ use through the completion of minimal required and dated entries			Demonstrates some knowledge of VRJ use through the completion of most required and dated entries			Demonstrates considerable knowledge of VRJ use through the completion of all required and dated entries, and some personal entries			Demonstrates thorough knowledge of VRJ use through the completion of all required and dated entries, and a substantial number of personal entries		
	2.5	+		-	3	+	-	3.5	+	4	4.5	5
Compositional elements and principles	Demonstrates limited understanding of compositional elements and principles			Demonstrates some understanding of compositional elements and principles			Demonstrates good understanding of compositional elements and principles			Demonstrates excellent understanding of compositional elements and principles		
	2.5	+		-	3	+	-	3.5	+	4	4.5	5
Thinking <i>Planning and processing skills</i>	Uses brainstorming, planning and processing skills with limited effectiveness			Uses brainstorming, planning and processing skills with some effectiveness.			Uses brainstorming, planning and processing skills with considerable effectiveness			Uses brainstorming, planning and processing skills with a high degree of effectiveness		
	2.5	+		-	3	+	-	3.5	+	4	4.5	5
Critical and creative thinking	Uses critical/creative thinking processes through limited effectiveness			Uses critical/creative thinking processes with some effectiveness			Uses critical/creative thinking processes with considerable effectiveness			Uses critical/creative thinking processes with a high degree of effectiveness		
	2.5	+		-	3	+	-	3.5	+	4	4.5	5
Communication <i>Expression and organization of ideas</i>	Text and images are imbalanced and ineffectively express and organize ideas			Expresses and organizes ideas and understandings with some effectiveness, but an imbalanced use of text and image			Effectively expresses and organizes ideas and understandings through a considerably balanced use of text and images			Expresses and organizes ideas and understandings through a very balanced use of text and images with a high degree of effectiveness		
	2.5	+		-	3	+	-	3.5	+	4	4.5	5
Conventions, vocabulary and terminology	Uses skills, techniques, vocabulary, and terminology of the arts/photography with limited effectiveness			Uses skills, techniques, vocabulary, and terminology of the arts /photography with some effectiveness			Uses skills, techniques, vocabulary, and terminology of the arts /photography with considerable effectiveness			Uses skills, techniques, vocabulary, and terminology of the arts /photography with a high degree of effectiveness		
	2.5	+		-	3	+	-	3.5	+	4	4.5	5
Application <i>Connecting the self and the world through art/photography</i>	Make connections within and between various contexts with limited effectiveness			Makes connections within and between various contexts with some effectiveness			Makes connections within and between various contexts with considerable effectiveness			Makes connections within and between various contexts with a high degree of effectiveness		
	2.5	+		-	3	+	-	3.5	+	4	4.5	5
Relationship between investigation and studio	Presents a limited relationship between investigation and studio			Presents a developing relationship between investigation and studio			Presents a focused relationship between investigation and studio			Presents a clear relationship between investigation and studio		
	2.5	+		-	3	+	-	3.5	+	4	4.5	5

Appendix AWQ 2O 1:2:4 - Name Photo Collage Rubric

KU: /5 **T:** /10 **C:** /10 **A:** **Total:** /30
/5

Level	Level 1 (50-59%) <i>Passing but much below provincial standard</i>	Level 2 (60-69%) <i>Approaching provincial standard</i>	Level 3 (70-79%) <i>Meets provincial standard</i>	Level 4 (80-100%) <i>Surpasses provincial standard</i>
Criteria				
Knowledge & Understanding				
Understanding collage	Demonstrates limited understanding of collage through minimal building, overlapping and manipulating materials	Demonstrates some understanding of collage through moderate building, overlapping and manipulating materials	Demonstrates considerable understanding of collage through effective building, overlapping and manipulating materials	Demonstrates a thorough understanding of collage through highly effective building, overlapping and manipulating materials
	2.5 +	- 3 +	- 3.5 +	4 4.5 5
Thinking				
Planning and processing skills	Uses limited planning and processing skills with no evidence of thumbnails or preparatory work	Uses some planning and processing skills with limited evidence of thumbnails or preparatory work	Uses considerable planning and processing skills with effective thumbnails and preparatory work	Uses thorough planning and processing skills with highly effective thumbnails and preparatory work
	2.5 +	- 3 +	- 3.5 +	4 4.5 5
Creative thinking and inventiveness	Uses limited creative thinking revealing little evidence of original thought	Uses some effective creative thinking, though work lacks sincere originality	Uses considerable creative thinking as work demonstrates originality	Uses a high degree of creative thinking showing a unique level of originality
	2.5 +	- 3 +	- 3.5 +	4 4.5 5
Communication				
Craftsmanship	Expresses craftsmanship through minimal care and limited demonstration of production skills	Expresses craftsmanship through moderate care and some demonstration of production skills	Expresses craftsmanship with considerable care and good demonstration of production skills	Expresses craftsmanship with a high degree of care and excellent production skills
	2.5 +	- 3 +	- 3.5 +	4 4.5 5
Required information	Fails to articulate first name, full name and course	Articulates some of the required information within the artwork	Articulates most of the required information within the artwork	Articulates first name, full name, course, and grade in the artwork
	2.5 +	- 3 +	- 3.5 +	4 4.5 5
Application				
Connections between photography and the self	Makes connections within and between photography and the self with limited effectiveness	Makes connections within and between photography and the self with some effectiveness	Makes connections within and between photography and the self with considerable effectiveness	Makes connections within and between photography and the self with a high degree of effectiveness
	2.5 +	- 3 +	- 3.5 +	4 4.5 5

Comments

FotoFirsts

Tips for Terrific Pictures

- KEEP YOUR CAMERA READY. Do you have your camera? Right film or memory card? Is it loaded? Are the batteries good?
- GET CLOSE. Don't be shy. Show details.
- FILL THE FRAME. If your subject is tall, hold the camera vertically. There is always diagonal...
- USE A SIMPLE BACKGROUND. Be aware of what's back there.
- HOLD YOUR CAMERA STEADY. Elbows in. Hold your breath for the click. Use a tripod when shooting below 1/60th of a second.
- MOVE SUBJECTS OFF CENTER. We say "dead center" for a reason.
- VARY YOUR VIEWPOINT. Belly in the grass...Climbing a tree...whatever!
- INCLUDE FOREGROUND FOR SCENICS. Shows distance. No horizons in the middle.
- LOOK FOR REPETITION. Shapes, patterns, contrasting lights and darks.
- LOOK FOR GOOD LIGHTING. Use natural lighting. Don't shoot into the sun. Watch for subjects squinting. Look for unusual lighting. You can use a flash outside.
- SHOW PEOPLE DOING SOMETHING. Be inconspicuous. Focus on the eyes—windows to the soul—posed pictures look unnatural.
- TAKE EXTRA PICTURES—always. IGNORE THE PREVIOUS TIPS—sometimes.
- NEVER TAKE A PICTURE THAT INTENTIONALLY EMBARRASSES OR HUMILIATES SOMEONE. Ask the subject's permission.

Photo Scavenger Hunt

Whether in groups or individually, everyone should take their own photos.

Fixed Lens film: Load film in low light. Set ISO as indicated on the film canister. 400 ISO film is good to start. Use a flash indoors.

Film SLR: Load film in low light. Set ISO as indicated on film canister. Try 400 ISO film to start. Set shooting mode to AUTO, or use the light meter to set f stop and shutter speed (i.e.: f/16 and shutter speed of 125). Use a flash indoors.

Fixed Lens digital: Set ISO to 400 if you can, or set to AUTO.

Digital SLR: Set ISO to 400; Set white balance to AUTO; Set shooting mode to AUTO.

Pick your camera... Get Set... Go.

Combine Lists A and B in any order or combination.

A. Objects / Situations
(Vary depending on location)

1. Landscape
2. Vehicle
3. Tree
4. Building
5. Person
6. Sign
7. Shoe
8. Stairs
9. Group
10. Stacked
11. Fence
12. Rock(s)
13. Laying
14. Under
15. Hand(s)
16. Face
17. Field

B. Shot requirements

1. Low horizon line
2. High horizon line
3. Object from a distance
4. Object close up
5. Low point of view (bug's view)
6. High point of view (bird's view)
7. Unusual or interesting angle
8. Reflecting light
9. Interesting shadow patterns
10. A reflection
11. Pattern or repetition
12. Vertical frame
13. Diagonal frame
14. Off center subject
15. Rule of thirds placement
16. Letters in the school name
17. Numbers 0-9

Make a digital or darkroom contact sheet of your photos. Cut up your contact sheets and group your shots in different categories to see what types of shots were more successful or to see trends. Paste the shots in your Visual Research Notebook grouped by categories such as patterns, abstracts, shots with a lot of depth, strongest focal point, close ups, low angles, oblique camera angles, etc.

Due Date: _____

Note: Alternately, these photos could be uploaded to a photo sharing website for the class to see and discuss. Students could look through selected peer shots and identify why they think some shots are stronger than others

Photography Safety Precautions

Safety in General:

- Be prepared to work when you arrive to class. Familiarize yourself with the layout and procedures before beginning the work at hand.
- Perform only those activities assigned by your teacher; never do anything in the darkroom or computer lab that is not called for in assignments provided by your teacher. Follow both oral and written instructions carefully.
- Report any accidents or unsafe conditions to your teacher immediately.
- Allow time for clean up at the end of the period.
- Do not use force with any equipment. If something does not work, inform your teacher.
- Do not leave the lab area without your teachers' permission.
- Learn the location and proper use of fire extinguishers, eye wash station, and emergency exits.
- Be respectful and courteous.

Safety in the Darkroom:

- Work areas should be kept clean and tidy at all times. Only negatives and photography paper should be brought into the dark room unless the teacher authorizes other items. Water, books, purses, cell phones, ipods, etc. should be left out in the classroom in your backpacks or in your locker.
- Do not wear loose fitting clothing that can dangle into the chemical trays. Long hair should be tied back, especially near the chemical trays.
- Set up apparatus only as directed by your teacher.
- Always use safe lights to provide illumination in the darkroom.
- Always use tongs when removing photographs from chemicals. Be sure to wash hands with soap before you leave class.
- Always use goggles when using chemicals.
- Avoid any action that could splash chemicals onto yourself or others.
- Keep all food, drinks and flammable items away from the chemical areas – both in classroom and darkroom areas.
- Never touch or taste the chemicals. Keep all chemicals from cuts, eyes, mouth and ears. In case of accidental ingestion of any photo chemical, follow the procedures on the appropriate Material Safety Data Sheets (MSDS).
- Clean up spills immediately and report accident to teacher immediately.
- Turn off all enlargers and safelights when leaving the darkroom, or wet lab. Main lights may be left on for the teachers' inspection.

Safety in the Field:

- Don't photograph on private property, such as in a store, without asking for permission.
- Don't photograph police officers and other government personnel without asking for permission.
- Don't photograph children without their parents or guardian's permission.
- Don't photograph anyone in a way that will harm the person.
- Know your surroundings before concentrating on what you see through your viewfinder (any hazards, cars, steep drops, etc.)
- Use your camera strap to guard against dropping your camera.
- Protect your camera from heat, cold, sand and water.

Safety with the computers:

- When finished in the computer lab, turn off monitor, clean up your computer area and push in your chair. Always leave the lab how you found it.
- If you notice something wrong when entering the computer lab notify a teacher immediately (i.e. missing mouse balls, graffiti on mouse pads, etc).
- Post your photographs on password-protected websites. By using such websites, you can control who can see your photographs.
- Keep your identity private. Don't provide information about yourself in text, such as in a caption, or visually, such as something in a photograph that identifies you.
- Don't send a photograph to or meet with someone you've met online.
- Remember—once something is on the Internet—it may remain there even if you delete it.

Safety when Trimming and Mounting:

- Handle sharp tools according to directions from the teacher.
- Never point a sharp tool at yourself or another person.
- Use caution when using hot tools such as the tacking iron or dry mounting press.
- Avoid getting adhesives on your skin – wash off with soap and water immediately.
- Use proper ventilation when using adhesives.

Sample Photography Darkroom Safety Quiz

1. What equipment is provided to protect your eyes in the darkroom?
2. What tools must be used to transfer your photographs between chemical trays in the darkroom?
3. After handling photo chemical, what basic hygiene habit will protect your skin?
4. List 3 other precautions (not including 1-3) to be observed in the darkroom.
5. Name the photo chemical that is dangerous, poisonous, and combustible.
6. List 5 photo processing chemicals that cause eye irritation.
7. List 4 photo processing chemicals that cause skin irritation.
8. Name the photo-processing chemical that has a low hazard rating.
9. Describe first aid to be given if any of these chemicals gets on your skin.
10. What do you do with exhausted fixer?
11. What do you do if a chemical splashes in your eyes?

Agreement: I understand that access to the Darkroom facilities is an earned privilege. I accept responsibility for working within the photography premises and seek approval for access. A perfect score on the QUIZ above and my signature below are required.

Signature: _____ Date: _____

Appendix AWQ 20 1:3:4

FotoFirsts Rubric

KU: /5 **T:** /5 **C:** /5 **A:** /5 **Total:** / 20

Level	<i>Level 1 (50-59%)</i>		<i>Level 2 (60-69%)</i>		<i>Level 3 (70-79%)</i>		<i>Level 4 (80-100%)</i>				
Criteria	<i>Passing but much below provincial standard</i>		<i>Approaching provincial standard</i>		<i>Meets provincial standard</i>		<i>Surpasses provincial standard</i>				
Knowledge & Understanding											
<i>Knowledge of basic camera operation</i>	Demonstrates limited knowledge of basic camera operation		Demonstrates some knowledge of basic camera operation.		Demonstrates considerable knowledge of basic camera operation.		Demonstrates a thorough knowledge of basic camera operation.				
	2.5	+	-	3	+	-	3.5	+	4	4.5	5
Thinking											
<i>Critical/creative thinking, good choice of subjects</i>	Uses limited critical and creative thinking skills		Uses some critical and creative thinking skills		Uses considerable critical and creative thinking skills		Uses a high degree of critical and creative thinking skills				
	2.5	+	-	3	+	-	3.5	+	4	4.5	5
Communication											
<i>Demonstrates objects/situations, shot requirements</i>	Exhibits a minimal representation of objects, situations and shot requirements		Exhibits a moderate representation of objects, situations and shot requirements		Exhibits a good representation of objects, situations and shot requirements		Exhibits abundant representations of all the objects, situations, and shot requirements				
	2.5	+	-	3	+	-	3.5	+	4	4.5	5
Application											
<i>Application of basic design process in photographs</i>	Applies the basic photographic design principles with limited effectiveness		Applies the basic photographic design principles with some effectiveness		Applies the basic photographic design principles with considerable effectiveness		Applies the basic photographic design principles with a high degree of effectiveness				
	2.5	+	-	3	+	-	3.5	+	4	4.5	5

Comments

Photography Rotation Schedule

If you don't have computers, cameras, or enlargers, etc., for all students at once, it's helpful to create multiple stations or activities that are equitable. This strategy is particularly useful with darkroom use. Divide students into four groups (or whatever size suits your needs) and rotate tasks. It is flexible, and depends on how many projects you have going at a time, and can be used on a priority basis. It can also be used for selected units when space is at a premium.

PERIOD _____

GR. 10 PHOTOGRAPHY

ACTIVITY GROUPS :

Group 1 Group 2 Group 3 Group 4

A= activity G= group

MONDAYS TUESDAYS WEDNESDAYS THURSDAYS FRIDAYS

A	G	A	G	A	G	A	G	A	G
W - 1		S - 1		S - 4		S - 3		S - 2	
W - 2		F - 2		F - 1		F - 4		F - 3	
W - 3		P - 3		P - 2		P - 1		P - 4	
W - 4		C - 4		C - 3		C - 2		C - 1	

ACTIVITY CODE

- S- shooting (taking photos or researching techniques)
- F- processing film
- P- printing (priority in darkroom)
- C- in-class (working on projects in the classroom)
- W- whole class activity, unless otherwise arranged.

You may work in any of these area's if there is space for you, or if you trade or negotiate with a member in another group.

Appendix AWQ 2O 1:4:2

Loading the Film

1. Take film, bottle opener, scissors, developing tank and reels into a lightproof room.
2. Organize the materials on a table.
3. Turn off the light.
4. Open the film canister at either end with the bottle opener.
5. Take the film out of the canister and cut off the tab at the end to create a straight edge.
6. Insert the edge into the clip at the center of the reel.
7. Thread the film between the wire spiral on the top and bottom of the reel.
8. Pull the end of the film off the spool and remove the tape.
9. Drop the loaded reel into the developing tank and secure the lid.
10. Turn the light back on.
11. Remove the top lid from the developing tank.
12. **A film changing bag can be used where no darkroom space is available. In this case, the film can be loaded in the closed bag with the lights on.

Developing the Film

Note: Developing times depend on which and how chemicals are prepared and which film is being developed. It is important to follow specific chemical instructions.

General Film Developing Times (do an internet search for times not listed)

Developer	Film Type	68F	72F	75F
TMAX	Kodak TMX100	7 min 30 sec	6 min 30 sec	6 min 15 sec
D76	Kodak TMX100	6 min 30 sec	5 min 45 sec	5 min 15 sec
TMAX	Kodak TMY400	7 min	6 min 30 sec	6 min 0 sec
D76	Kodak TMY400	8 min	7 min	6 min 30 sec
TMX	Ilford FP4	8 min	7 min 30 sec	7 min
D76 1:1	Ilford FP4	9 min	7 min 15 sec	6 min 30 sec
D76 1:0	Ilford FP4	6 min	5 min 15 sec	4 min 30 sec

1. Wear goggles.
2. Mix chemicals to working strength, according to directions and temperature. Keep the chemicals in collapsible storage containers.
3. Pour water in the tank and agitate for 1 minute.
4. Pour 8 oz. developer into the top of the tank when using an 8 oz tank. Start the timer as soon as the tank is filled.
5. Tap the tank against the counter to dislodge bubbles.
6. Agitate the tank by slowly inverting it and turning it back over for the first 15 seconds.
7. Agitate for the last 5 seconds of every 30 seconds after that for the recommended developing time (usually 5 to 8 minutes).
8. Pour the developer back into the storage container.
9. Pour stop bath into the now-empty developing tank. Agitate the stop bath continuously for 1 minute.
10. Pour out the stop bath and save stop.
11. Pour fixer into the tank. Agitate the fixer for 15 seconds and then for 5 seconds once every 30 seconds for the allotted time. (usually 5-10 minutes for regular fixer).
12. Pour the fixer back into its bottle. Save fixer.
13. Pour in fix remover, or Hypo Clear, agitate for 1 minute. Save fix remover.
14. Rinse with water for 5 minutes or 10 water changes.
15. Add wetting agent to the water and immerse film for 1 minute, to expedite drying.
16. Remove the film from the tank.
17. Attach a clip to the end of the film, pull the film off the reel and attach another clip at the opposite end.
18. Hang the film in a dry, dust-free area for at least 30 minutes.
19. Cut and store dry negatives in plastic negative sleeves.

Appendix AWQ 2O 1:4:3

Making a Contact Sheet

A contact sheet is a positive print of all the negatives in a roll of film. It serves as a type of index card so you can see your images clearly with a magnifying glass, and will be better able to decide which ones to enlarge into prints.

Materials:

- Negatives
- photo paper
- contact sheet printer
- card
- enlarger
- developing apparatus set up

Procedure:

1. Clean glass of contact printer with glass cleaner.
2. Lock the negative carrier in position before it is turned on.
3. Raise the enlarger head until the projected rectangle of light is beyond the parameter of the contact printer frame.
4. Set Grade 2 on the contrast dial and set the aperture to f4. Turn off the enlarger.
5. Place a test strip in the contact printer, emulsion side up. Place negatives on top of test strip, emulsion side down. Cover with glass.
6. Place cardboard over the paper-negative-glass sandwich, exposing $\frac{1}{2}$ inch of test strip. Set the timer for 3 seconds and expose. Move the card to expose another $\frac{1}{2}$ inch and expose again. Repeat this procedure several more times until the entire test strip has been exposed.
7. Develop the test strip following photo paper developing procedures.
8. Write on the back of the test strip for each exposure time. The test strip will have five or six strips of three-second exposures; the lightest one at three seconds and the darkest one at fifteen to eighteen seconds.
9. Determine the exposure time with the minimum time required to produce a maximum black. For example, if the film edge is black at nine seconds, then use 9 seconds at f4 for your contact sheet. If your test strip is too light and has no blacks, then turn your lens aperture to f2.8, if your test strip is too dark, then turn your lens aperture to f5.6, then make a new test strip.
10. Place a full sheet of 8"x10" photo paper in the contact sheet printer, emulsion side up. Place your negatives onto the paper, cover it with the glass and make an exposure using the time you established from the test strip.
11. Once you have made a successful contact sheet, record all relevant information on the back of the contact sheet for future reference. Write down the exposure time, the f-stop and the filtration used. Keep a record of everything you do in the darkroom so you will know what to do in the future.

Developing Black and White Prints

Preparation:

1. Wearing gloves and goggles, mix the chemicals for the Developer, Stop bath, and Fixer according to the manufacturers instructions. Be sure to not mix the chemicals by using contaminated measuring or stirring tools.
2. Store the mixed chemicals in bottles labeled for that purpose.
3. Determine the optimum temperature for your developer, per manufacturers recommendations.
4. Set three trays, large enough for the photo paper, on a counter or in a large sink. These trays should be labeled, developer, stop bath, fixer. They should always be used for the labeled chemical only. They can be set up in order left to right with the wash sink is at the end.
5. Measure the temperature of your developer, if it's too cold or too hot, you can put the developing tray into a larger tray and fill hot or cold water into the surrounding tray. Be careful not to allow the water to overflow into the developer. There is normally a range of temperatures acceptable, and it's best to be within that range.

Developing:

1. Under safe lights expose your print, either as an enlargement, or a contact sheet.
2. Using the developing tongs, slide the exposed sheet in the developer tray, emulsion side up. Agitation during print developing is a gentle rocking back and forth of the tray every so often (30 seconds or so).
3. Develop for the full time recommended by the manufacturer, for consistent results - usually 2 minutes.
4. Using the developer tongs, pick the print up. Allow any runoff to drip back into the developer tray before the next step.

Stop:

1. Place the developed sheet of paper in the stop tray. The first rocking motion of the tray will make sure that all of the paper is covered with stop.
2. Agitate once or twice during the stop bath.
3. Upon completion of the full time - usually 30 seconds - pick up the print, by a corner if possible, using the stop / fixer tongs.

Fixer:

1. Place the stopped sheet in the fixer tray, the same as you did for the other trays.
2. Agitate every 30 seconds or so.
3. Leave the paper in the fixer for the recommended time - usually 2 minutes.
4. Remove the paper from the fixer, as before.

Wash:

1. Place the fixed sheet in the wash bath.
2. Immerse in gently running water for 4 minutes. RC paper does not need to be washed as long as fiber paper.
3. The print can sit in the water for 10 to 15 minutes.

Dry:

1. Squeegee the print to remove most of the water.
2. For RC paper, hang the print from a line with clean clothespins.
3. Use a hair dryer to dry off the remaining water.
4. Using print drying racks for fiber paper.

Photography Timeline



Joseph Nicéphore Niépce
View from the Window at Le Gras, Saint-Loup-de-Varennes, France (1826)
Heliograph
First permanent photograph requiring an 8 hour exposure.



Louis Daguerre
Boulevard du Temple, Paris (1839)
Daguerreotype
First to photograph a person.

History of Photography examples II:

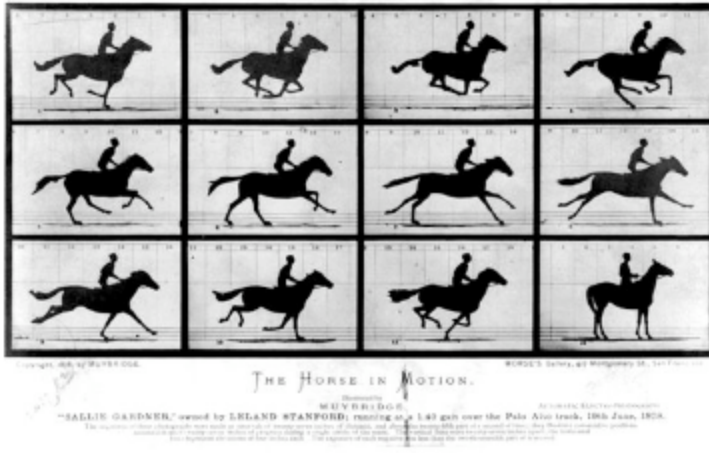


William Henry Fox Talbot
Lacock Abbey (1835)
Developed the positive/negative process.



James Clerk Maxwell
Tartan Ribbon (1861).
First colour photograph.

History of Photography examples III:



Eadweard Muybridge

The Horse in Motion (1878)

High speed photographic demonstration of a moving horse, airborne during a trot, using a trip-wire system.



Man Ray

Rayograph (1926)

Photogram

Photograms

Challenge: Create a photogram.

Imagining and Generating:

Begin to think about objects that are opaque, translucent and transparent. How would they behave when illuminate from behind? In your Visual Research Notebook, make a list of ideas for objects you are thinking about using for your project. Are the objects linked to a theme? Begin to think about some creative arrangements of the objects.

Planning and Focusing:

In your VRN draw 6-8 different sketches for designs you would like to explore. Your designs must be non-objective or abstract (no logos, or drawings of identifiable symbols). Focus on positive and negative space, overlapping techniques, emphasis, how the eye travels throughout the arrangement, and whether the composition feels unified. You don't want the arrangement to be total chaos, but you do want it to be visually complex. When designs are too simple they do not invite the viewer to take more than a glance. If there is too much visual confusion, the viewer will want to look away.

Exploring and Experimenting:

Sgraffito (scratching)	Paint a sheet of clear plastic acetate with paint, black marker, or black grease pencil and allow it to dry. Scratch a design into the surface using a pin or sharp edge.
Cliche Verre	Paint or draw a design on plexiglass or plastic acetate with a brush, marker, or grease pencil.
Tracing Paper	Sketch a design onto tracing paper with pencil, marker, or another medium. Put it on top of photo paper.
Paint with Light	Use a penlight or small flashlight to expose the paper. Use this with objects.
Masking with Paper	Cut shapes or patterns out of dark paper. Lay on top of photo paper like a stencil (masking out).
3D Objects	Place 3D objects on glass or a sheet of acetate.
Translucent objects	Use plastics and clear or semi clear objects.
Photocopies	Make a photocopy of an image and place it directly on top of the paper in the contact printer.
Mini sgraffito	Scratch/mark/draw on undeveloped negative film, place in negative carrier and focus (ask for help).

Micro design	Use blank negative film and arrange very small objects onto a frame. Stick a piece of clean packing tape over top to hold items in place. Place this negative in the negative carrier and focus it (ask for help to do this). Often it is easier to stick the objects to the tape very carefully. Larger objects, like a feather, do not need to be taped.
Oil resist	Use a form of oil (petroleum jelly) on the photo paper. It does not allow the paper to develop where the oil was. Warning! Use different tongs. This can get messy and ruin other's work.

Producing Your Work:

A. *Darkroom*

- Place objects on top of test strips of photo paper and expose the paper to light for the various times, to arrive at correct time for true blacks and true whites.
- Develop paper in chemicals as instructed.
- Do additional test strips to try out ideas. Explore, but try not to use too much of your paper.
- When ready, do a final 5"x7" print of the idea you liked the most.

B. *Positive*

- Choose your favorite photogram to print a positive contact print. Place the negative print on top of the new paper, shiny sides facing each other. Making sure to do test strips first.

C. *Mount*

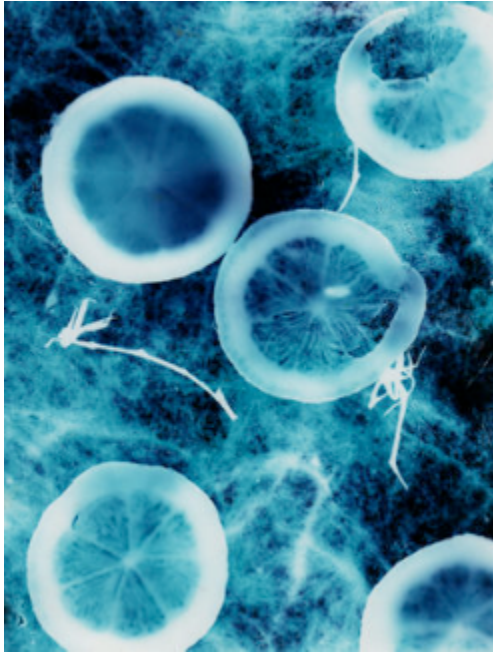
- Mount Neg. + Pos. side by side with 1.5 inches on sides and top and 1.75 inches on bottom. Tape labeled test strips to back.

Due Date _____

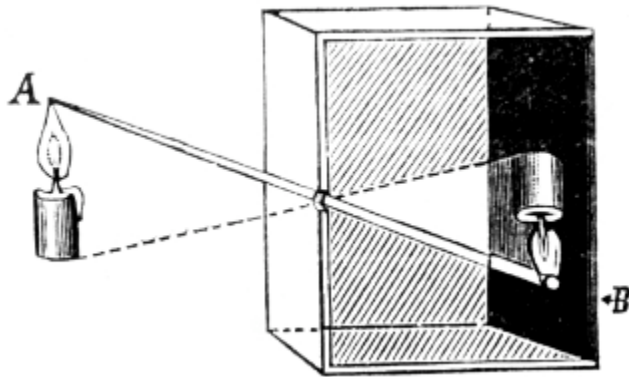
Appendix AWQ 2O 1:5:3

Photogram Examples

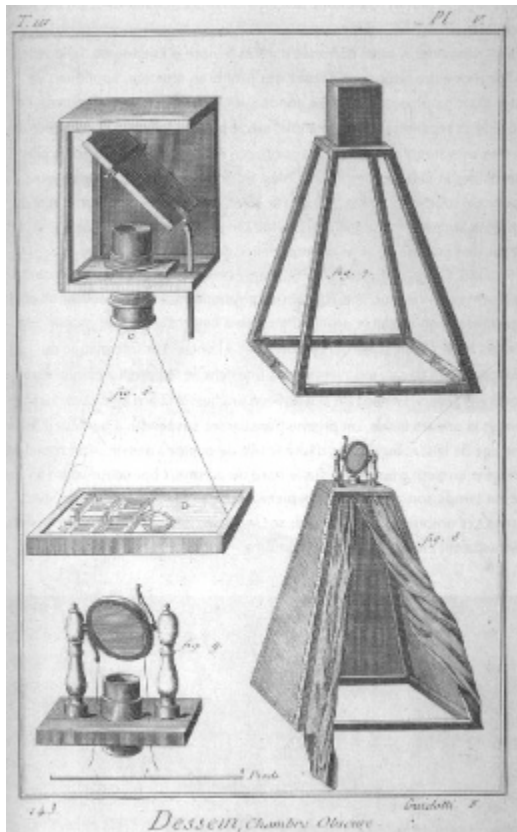
Many more examples can be found online, or in many photography books. Remind students that the method used to create a photogram can also be integrated into an enlargement, including the use of text on clear paper, etc.



Camera Obscura



This illustration demonstrates how the light from an object travels through a hole and creates an inverted image on the screen inside a camera obscura or pinhole camera.

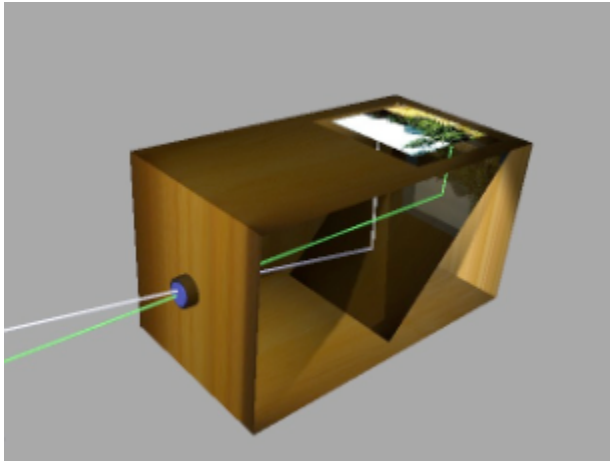


These drawings show different types of camera obscura.



Johannes Vermeer
Young Woman with a Water Pitcher (1662)
Oil on canvas

Used a camera obscura to accurately. Chapter 9 of the film “Girl with the Pearl Earring”, shows Vermeer using the camera obscura to record this image.



This diagram illustrates how light from an object travels through a hole into a box. The image is redirected by a mirror to a new location.

Appendix AWQ 2O 1:5:5 - Eye versus Camera

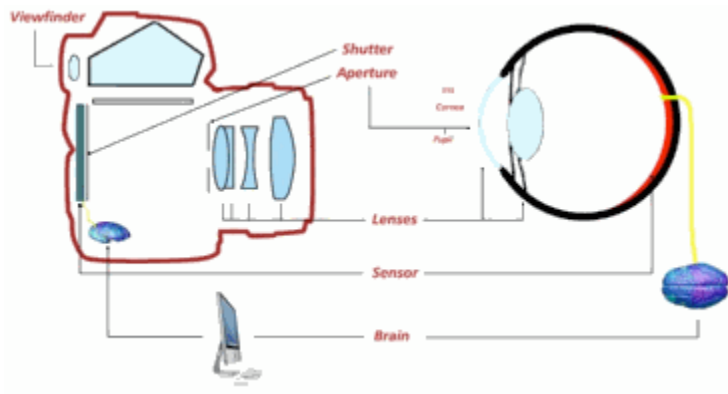
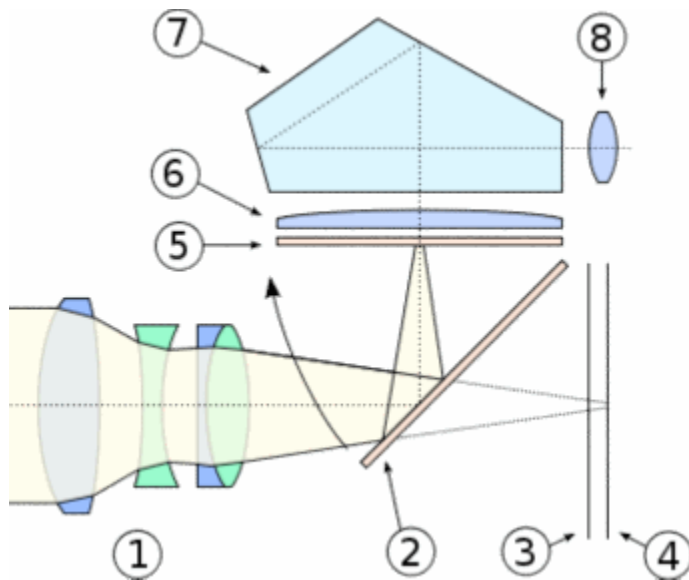


Illustration by Rhett Stuart

The Viewing System



Cross-section view of DSLR system:

1. 4-element lens
2. Reflex mirror
3. Focal-plane shutter
4. [Image sensor](#)
5. Matte focusing screen
6. Condenser lens
7. [Pentaprism](#)
8. Eyepiece

Pinhole Camera Basics

Materials:

- Aluminum soft drink can, empty, clean and dry.
- Can opener or tin snips.
- Black card or Bristol board.
- Matte black spray paint.
- Emery cloth or very fine sandpaper.
- Newspaper
- Black duck tape.
- Black electrical tape.
- A pinhole drill: a #16 beading needle protruding ¼" from and epoxied to a clothespin handle.
- Permanent fine tip marker.
- Photo paper
- Glass plate
- 15W light bulb or an enlarger
- Developing chemicals
- Mat board & Mounting board
- Mat cutter
- Good scissors / x-acto knife.

Challenge: Make your own pinhole camera. Take interesting photographs with it. Develop and display your images.

Imagining and Generating: Look at examples of pinhole photographs. Get familiar with some artists who work in pinhole photography. Get your creative juices flowing.

Planning and Focusing:

1. **Build a pinhole camera body:** (Appendix 11; examples)
 - a. Cover your workspace with newspaper.
 - b. Cut the top of the pop can. BE CAREFUL, EDGES ARE SHARP. Sand the top edge with sandpaper or emery cloth.
 - c. Spray inside of can with spray paint; short bursts, several inches away, don't soak. Alternatively, the inside of the can is lined with black paper.
 - d. Cut a 2 ½" x 8" strip of black card. Cut ½" notches along the long (8") edge then crease them over.
 - e. Cut out a circle of card the same diameter as the can (trace).
 - f. Turn the can over (so you work on the 'non wobbly' base). Tape the strip of card tightly around the can. Crease the notches over the top, place the circle of card over the notches, use electrical or duct tape to cover over and attach the lid to the cardboard sleeve.
 - g. Take the completed lid off. It will go over the open end of the can later.
2. **Making the pinhole:**
 - a. With the emery cloth, file down the area in the middle of the can where the hole will be. Make the metal as thin as possible.
 - b. TRICKY PART: Gently create an *indentation* by smoothly turning the pin drill. DON'T GO ALL THE WAY THROUGH.
 - c. Use the emery cloth to gently smooth away the indentation and create the tiny hole (the smaller the hole the sharper the image). The hole should be around, flat, and 1/3rd mm in diameter....Tiny.

3. Making the shutter:

- a. With a fine permanent marker, draw a line vertically through the hole, about 2" above and 2" below the hole. **DON'T FILL THE HOLE WITH INK.** This will help you line up your hole with the subject matter.
- b. Cut a 1 ½ " strip of electrical tape for the shutter. Fold under slightly on one end so you are able to grasp it to open and close it. Stick the tape over the hole.

4. Loading your camera with photo paper.

- a. Under safe lights, check that your shutter is closed. Have your lid ready.
- b. Slide a sheet of 5"x4" photo paper into the can; the emulsion side facing the pinhole (shiny side up). The paper should be straight, not covering the pinhole, and resting flatly against the inside and back of the can.
- c. Close the can carefully and securely with the lid.

Exploring and Experimenting:

5. Capturing a Pinhole Negative Image:

- a. Decide on your subject. Set down the pinhole camera in a stationary position, facing the subject. It cannot be handheld!
 - b. Line up the vertical line through the pinhole with the subject matter. Make sure your subject is close (1 – 2 feet away). This camera will record a lot of background, so be aware of yours.
 - c. Don't point the camera directly into the sun.
 - d. Open the shutter (remove tape), keeping camera still, and allowing light in the pinhole. The scene/subject should be still.
 - e. Time the exposure. If you don't have a watch, count "one one thousand, two one thousand... Cover the hole, keeping the camera still, when time is up. The length of time is dependent upon lighting conditions and varies greatly from one camera to the next. Keep a record of lighting conditions, time, and result for every attempt.
 - Indoor (7-12 minutes - away from window)
(3-6 minutes - near window)
 - Outdoor (2-10 seconds - bright sun)
(10-30 seconds - partly cloudy)
(30-45 seconds - hazy/overcast)
 - f. Do not open up your camera until you are under safe lights in the darkroom. You will have to do this after each exposure in order to remove and develop the photo paper.
6. Use the pinhole camera to capture 3 successful negative images (could take multiple attempts). Record and hand in a list of exposure times, lighting conditions and results for all attempts, indicating which is the most successful.
 7. Finish by setting up for a solargraph at home, where your pinhole camera will remain taped to a still place, exposing for three months!

Producing your Work:

8. In the darkroom, under safe lights, remove the can's lid. Remove the exposed paper (your negative) from the pinhole camera. Process exposed paper according to wet side directions. Allow to dry.
9. **Contact Print:** Exposing your negative:
 - a. Choose your best negative to make a positive contact print in the darkroom with the enlarger.
 - b. Under safe lights make a negative sandwich under an enlarger: unexposed photo test strip paper (emulsion up), then negative print (emulsion down), then a sheet of glass on top. Make a test strip to determine best exposure time.
 - d. Repeat the "sandwich" with a full sheet of unexposed photo paper on the bottom. Expose. Then Develop.
10. Measure and cut a double window mat. Mount your best negative and positive side by side. Attach all test strips, attempts, and shot record to your Visual Research Notebook.

** Your Solargraph will be an experiment that you will have to wait for three months to complete. You will add it to your VRN.

Due Date: _____

Solargraphs

A pinhole extension.

1. Load your pinhole camera with photo paper. Completely cover the lid with masking tape, attaching it very securely to the can body.
2. Find a place and position outside your home pointing towards the sun. That will be south in the Northern Hemisphere. Google Earth will show you South.
3. A window ledge will work but choose a nice view and make sure the camera is well out of reach. It's going to be exposing for some time, day and night.
4. Choose a date to start the exposure and write it down in your VRN.
5. Fix the camera sturdily in position. Make sure it will not blow around. It needs to stay still. Lots of duct tape and cable ties will work. Don't block the hole. Gluing a pencil onto the side will help to keep the camera steady if you fix it to a circular object like a pole. Gluing one horizontally on the back will tilt the camera upwards slightly enabling it to capture the height of the sun.
6. Peel the shutter tape off.
7. Write on your calendar when you started the exposure and when you will stop the exposure. Three months from now.
8. After 3 months place the tape shutter onto the hole and bring the camera back home after its long ordeal.
9. Set the scanner on a high resolution of 500dpi for 5"x4" photo paper.
10. Switch off the light in your computer room.
11. Take the photo paper out of the pinhole camera without developing it. Place it onto the scanner, with a book on top to hold it flat, and press scan.
12. Save the negative image on your computer. Then manipulate the image using photo software like Photoshop or PaintNet or iPhoto. You can inverse, flip, and play with contrast and brightness.

Appendix AWQ 2O 1:5:8

Pinhole Construction and Student Pinhole Photo examples.



History of Photography Quiz Questions:

1. Who can you say is the most famous inventor of early photography?
 - a. Nicéphore Niépce
 - b. Louis Daguerre
 - c. Francois Arago
 - d. Frederick Scott Archer

2. What is the name of the first successful photographic process?
 - a. Daguerreotype
 - b. Calotype
 - c. Camera Obscura
 - d. Camera Lucida

3. How much time was required to properly expose a photo with the first successful process available?
 - a. 3 hours
 - b. Between 1 and 3 minutes
 - c. Between 10 and 20 minute
 - d. 1 to 2 hours

4. What new method or methods enabled a decrease in the exposure time needed to take a picture?
 - a. Taking pictures in bright sunlight
 - b. Other chemicals and wider apertures
 - c. Using multiple plates
 - d. Brightening the subject and placing it close to the camera

5. As we all know, the first photographs were all monochrome. What process was used to get color, before color photography was invented?
 - a. Using colored plates
 - b. Hand colouring
 - c. Combining different lenses and filter
 - d. Using a special viewing glass

6. Who made the first advances in color photography?
 - a. Auguste and Louis Lumière
 - b. James Clerk Maxwell
 - c. Herman Vogel
 - d. Ducas du Hauron

7. The theory behind the first tried color process was wrong.
 - a. True
 - b. False

8. In 1907, two brothers introduced the first viable colour process. Who were they?
 - a. The Eastman Brothers
 - b. The Lumière Brothers
 - c. Herman and Otto Vogel
 - d. David and Thomas Sutton

9. Who introduced the flexible film to the market?
 - a. John Carbutt
 - b. George Eastman
 - c. Frederick Scott Archer
 - d. Richard Maddox

10. The same man who introduced the flexible film was also responsible for what other popular invention?
 - a. The box camera
 - b. The carbon process
 - c. Flash photography
 - d. Stereoscopic photography

Answers:

1. Who can you say is the most famous inventor of early photography?

Louis Daguerre.

Though Niépce developed the first successful picture in 1827, it took 8 hours to expose. Two years later Niépce joined Dageuure in a partnership, but he died only four years later. Daguerre is believed to be the "father" of photography, since by accident he exposed a plate in his chemical cupboard when a bottle of mercury tipped over and the fumes developed the latent image.

2. What is the name of the first successful photographic process?

Daguerreotype.

The Daguerreotype was developed by Louis Daguerre. It was discovered by accident in 1835. In 1837 the process was fixed and it was announced to the public in 1839. The French government bought the rights to it in the same year.

3. How much time was required to properly expose a photo with the first successful process available?

Between 10 and 20 minutes.

Photos made with the first Daguerrotypes took 10 to 20 minutes to properly expose to available light. People were required to sit still for that long to have their picture taken. Rests were used to keep the subject still.

4. What new method or methods enabled a decrease in the exposure time needed to take a picture?

Other chemicals and wider apertures.

Asking for people to sit under a hot sun for 15 minutes was too much. Combining new chemical processes and using lenses with wider apertures, the exposure time was reduced to more acceptable times, of 10 to 30 seconds.

5. As we all know, the first photographs were all monochrome. What process was used to get color, before color photography was invented?

Hand colouring.

Hand colouring was a very detailed and fine process. It required time and a lot of skill. Colors were applied with a fine brush and then fixed by simply breathing on the plate.

6. Who made the first advances in color photography?

James Clerk Maxwell.

James Clerk Maxwell began working with color in 1860, by taking three exposures, each one with a different color filter (red, green, blue), and then projecting the three images using three lanterns with the corresponding filters.

7. The theory behind the first tried color process was wrong.

True.

It was not possible to record anything in the "red" and "green" exposures. The emulsion used at the time only responded to the blue end of the spectrum. It worked at the time because the green filter passed some blue light, and ultraviolet rays were exposed in the red plate.

8. In 1907, two brothers introduced the first viable colour process. Who were they?

The Lumière Brothers.

Though other color processes were discovered earlier, the Lumière Brothers were responsible for the first practical one. They developed the Autochrome plate in 1907. In 1909 Louis Lumière was awarded by the Royal Photographic Society with the progress medal.

9. Who introduced the flexible film to the market?

George Eastman.

George Eastman introduced the flexible film in 1884. His contributions made photography accessible for all. Eastman was the man who created the brand we all know today: Kodak.

10. The same man who introduced the flexible film was also responsible for what other popular invention?

The box camera.

George Eastman produced the first box camera in 1886, but it was way too costly. Two years later, in 1888, four years after he created the first flexible film, the first Kodak box camera hit the streets. It was an instant success. Finally, you could have a portable device to take along on your trips and take pictures of those precious moments.

Appendix AWQ 2O 1:5:10 - Photogram Rubric

KU: /5
/5

T: /10

C: /10

A:

Total: / 30

Level	Level 1 (50-59%) <i>Passing but much below provincial standard</i>	Level 2 (60-69%) <i>Approaching provincial standard</i>	Level 3 (70-79%) <i>Meets provincial standard</i>	Level 4 (80-100%) <i>Surpasses provincial standard</i>
Criteria				
Knowledge & Understanding				
Understanding collage	Demonstrates limited understanding of collage through minimal building, overlapping and manipulating materials	Demonstrates some understanding of collage through moderate building, overlapping and manipulating materials	Demonstrates considerable understanding of collage through effective building, overlapping and manipulating materials	Demonstrates a thorough understanding of collage through highly effective building, overlapping and manipulating materials
	2.5 +	- 3 +	- 3.5 +	4 4.5 5
Thinking				
Planning and processing skills	Uses limited planning and processing skills with no evidence of thumbnails or preparatory work	Uses some planning and processing skills with limited evidence of thumbnails or preparatory work	Uses considerable planning and processing skills with effective thumbnails and preparatory work	Uses thorough planning and processing skills with highly effective thumbnails and preparatory work
	2.5 +	- 3 +	- 3.5 +	4 4.5 5
Creative thinking and inventiveness	Uses limited creative thinking revealing little evidence of original thought	Uses some effective creative thinking, though work lacks sincere originality	Uses considerable creative thinking as work demonstrates originality	Uses a high degree of creative thinking showing a unique level of originality
	2.5 +	- 3 +	- 3.5 +	4 4.5 5
Communication				
Craftsmanship	Expresses craftsmanship through minimal care and limited demonstration of production skills	Expresses craftsmanship through moderate care and some demonstration of production skills	Expresses craftsmanship with considerable care and good demonstration of production skills	Expresses craftsmanship with a high degree of care and excellent production skills
	2.5 +	- 3 +	- 3.5 +	4 4.5 5
Required information	Fails to articulate first name, full name and course	Articulates some of the required information within the artwork	Articulates most of the required information within the artwork	Articulates first name, full name, course, and grade in the artwork
	2.5 +	- 3 +	- 3.5 +	4 4.5 5
Application				
Connections between photography and the self	Makes connections within and between photography and the self with limited effectiveness	Makes connections within and between photography and the self with some effectiveness	Makes connections within and between photography and the self with considerable effectiveness	Makes connections within and between photography and the self with a high degree of effectiveness
	2.5 +	- 3 +	- 3.5 +	4 4.5 5

Comments

Appendix AWQ 2O 1:5:11 - Pinhole Camera Rubric

KU: /5

T: /5

C: /10

A: /5

Total: / 25

Level Criteria	<i>Level 1 (50-59%) Passing but much below provincial standard</i>	<i>Level 2 (60-69%) Approaching provincial standard</i>	<i>Level 3 (70-79%) Meets provincial standard</i>	<i>Level 4 (80-100%) Surpasses provincial standard</i>
Knowledge & Understanding: <i>Understanding basic darkroom technique</i>	Demonstrates limited understanding of basic darkroom technique through unsuccessful negative development and contact print.	Demonstrates some understanding of basic darkroom technique through moderate success of negative development and contact print.	Demonstrates considerable understanding of basic darkroom technique through successful negative development and contact print.	Demonstrates a thorough understanding of basic darkroom technique through highly successful negative development and contact print.
	2.5 +	- 3 +	- 3.5 +	4 4.5 5
Thinking: <i>Creative thinking and inventiveness</i>	Uses limited creative thinking revealing little evidence of original thought in the photos.	Uses some effective creative thinking, though photos lacks sincere originality.	Uses considerable creative thinking as photos demonstrate originality.	Uses a high degree of creative thinking showing a unique level of originality in the photos.
	2.5 +	- 3 +	- 3.5 +	4 4.5 5
Communication: <i>Craftsmanship</i>	Expresses pinhole camera craftsmanship through minimal care and limited demonstration of production skills.	Expresses pinhole camera craftsmanship through moderate care and some demonstration of production skills.	Expresses pinhole camera craftsmanship with considerable care and good demonstration of production skills.	Expresses pinhole camera craftsmanship with a high degree of care and excellent production skills.
	2.5 +	- 3 +	- 3.5 +	4 4.5 5
Required information	Fails to measure, mount, matt, and submit the required photos. Omits exposure times and lighting conditions.	Articulates some of the required information through moderate measuring, mounting and matting of the photos. Includes some exposure and lighting information.	Articulates most of the required information through good measuring, mounting and matting of the photos. Includes adequate exposure and lighting information.	Articulates all the required information through excellent measuring, mounting and matting of the photos. Includes accurate and complete exposure and lighting information.
	2.5 +	- 3 +	- 3.5 +	4 4.5 5
Application: <i>Connections between exposure time and lighting conditions.</i>	Makes connections between exposure times and lighting conditions with limited effectiveness.	Makes connections between exposure times and lighting conditions with some effectiveness.	Makes connections between exposure times and lighting conditions with considerable effectiveness.	Makes connections between exposure times and lighting conditions with a high degree of effectiveness.
	2.5 +	- 3 +	- 3.5 +	4 4.5 5

Comments

Questions about Composition

1. Where is the focal point of the picture? Where do you look second? Comment on how the photographer has directed your eye to move around the picture.
2. Does the photo use the “Rule of Thirds”? If so, explain how the rule of thirds contributes to the composition. If not, explain why it would or would not be better if it did?
3. Explain how the photo uses any 2 of the Elements of Design and how they contribute to the overall composition (line, shape, form, space, texture, value, colour).
4. Explain how the photo uses any 2 of the Principles of Design, and how they contribute to the picture’s composition or meaning. (balance, unity, contrast, emphasis, pattern, movement, rhythm)
5. Do you like how the picture framed or cropped? How would you crop it? If you were taking the photo, what would you do differently?
6. Does the picture use any unusual angles or techniques? How do they contribute to the picture’s meaning?
7. Does the picture fit into one of the types of photos talked about in class? (deep/shallow depth of field, time exposure, macro, stop action, panned, multiple exposure...)
8. Explain how you think the photographer took the picture. Consider things like: What camera settings could have been used? Did they need to use a tripod?
9. What specific emotions, mood or feelings does the photo arouse in you the viewer? Describe the overall feeling of the photo. Does the subject matter represent something else or symbolize anything to you?

Composition Examples Collection

Find ONE example of EACH of the following using the Internet, magazines, newspapers, or real photos as sources. Do not cut images from books or magazines that are not yours to deface! All photos from the Internet must be large enough and high enough resolution to be seen clearly. Try to find some examples that show evidence of manipulation by photo software.

Mount your examples in the Visual Research Notebook or make a separate booklet and correctly label each one. Include a short explanation of the characteristics that qualify it as that particular type of photograph. Include what you think the camera settings or equipment needed to take that type of shot.

Elements of Design

1. Line
2. Shape: organic
3. Shape: geometric
4. Shape: positive vs. negative
5. Form
6. Space: linear perspective
7. Space: arial perspective
8. Space: overlapping
9. Space: position on the picture plane: deep depth of field
10. Texture
11. Colour: muted
12. Colour: saturated
13. Colour: warm
14. Colour: cool
15. Colour: primaries
16. Colour: secondaries
17. Colour: monochromatic
18. Value: gradation
19. Value: shadows

19.

Principles of Design

20. Balance: symmetry
21. Balance: asymmetry
22. Balance: radial
23. Contrast
24. Emphasis: short depth of field
25. Emphasis: rule of thirds
26. Movement: actual: stop action
27. Movement: actual: panning
28. Movement: actual: motion blur
29. Movement: time exposure
30. Movement: compositional: leading lines
31. Movement: compositional: repetition
32. Rhythm / Pattern
33. Proportion: low angle
34. Proportion: high angle
35. Unity / harmony

Shot techniques

36. Depth of field: long
37. Depth of field: short
38. Multiple exposure or ghost shot (find ones that were done in camera)
39. Macro
40. Wide-angle
41. Low-angle or extreme low-angle
42. High-angle or extreme high angle
43. Canted or oblique angle

Weathered Assignment

A theme can be explored in photography via many stages of the image-making process; from choosing the subject matter, to manipulating the camera, to applying changes to the negative, to affecting the print before and after development.

Theme: Weathered... worn, stained, or warped by or as if by exposure to weather; seasoned.

Challenge: Create three photographs of one image that demonstrate various treatments of weathering.

Imagining and Generating: Begin to think about words that describe something weathered (i.e.: run-down, faded, broken, crushed, dirty, weak, used, damaged, old). What types of objects look weathered? What compositional and photo taking techniques could be used to enhance a weathered look? (dramatic or harsh lighting, contrast, close up detail, etc...) What situations in nature produce weathering? Brainstorm in your Visual Research Notebook.

Planning and Focusing: Decide where you will go to photograph. Where would you find weathered things and weathering situations? What would you like to photograph?

Exploring and Experimenting: Photograph things that are weathered. Try different compositions and shot techniques that might enhance the object or the weathered look. Experiment with negative and print manipulation techniques:

- touching up
- distressing
- adding texture or grunge graphics
- hand colouring
- altered imagery

Producing your Work: Done either in the darkroom or digitally, but can be adjusted to commercially processed prints.

- Make a contact sheet. Choose your image. Make a test strip.
- Make three prints:
 1. One as is.
 2. One that has been fixed and touched up to look less weathered.
 3. One that is distressed and to enhanced the weathered look.
- Hand colour any one of the three that you think would work best.
- Mount the triptych traditionally with accurate matting techniques or include all three images in a collage that expresses “weathered”.

Appendix AWQ 2O 2:2:2 - Weathered Rubric

KU: /5 **T:** /10 **C:** /10 **A:** /5 **Total:** /30

Level Criteria	Level 1 (50-59%) <i>Passing but much below provincial standard</i>	Level 2 (60-69%) <i>Approaching provincial standard</i>	Level 3 (70-79%) <i>Meets provincial standard</i>	Level 4 (80-100%) <i>Surpasses provincial standard</i>
Knowledge & Understanding				
<i>Understanding compositional elements, principles and shot techniques</i>	Demonstrates limited understanding of composition through the elements, principles and shot techniques.	Demonstrates some understanding of composition through the elements, principles and shot techniques.	Demonstrates considerable understanding of composition through the elements, principles and shot techniques.	Demonstrates a thorough understanding of composition through the elements, principles and shot techniques.
	2.5 +	- 3 +	- 3.5 +	4 4.5 5
Thinking				
<i>Planning and processing skills</i>	Uses limited planning and processing skills with no evidence of preparatory work and minimal exploration of techniques.	Uses some planning and processing skills with limited evidence of preparatory work and moderate exploration of techniques.	Uses considerable planning and processing skills with effective preparatory work and a good exploration of techniques.	Uses thorough planning and processing skills with highly effective preparatory work and an excellent exploration of techniques.
	2.5 +	- 3 +	- 3.5 +	4 4.5 5
<i>Creative thinking and inventiveness</i>	Uses limited creative thinking revealing little evidence of original thought.	Uses some effective creative thinking, though work lacks sincere originality.	Uses considerable creative thinking as work demonstrates originality.	Uses a high degree of creative thinking showing a unique level of originality.
	2.5 +	- 3 +	- 3.5 +	4 4.5 5
Communication				
<i>Craftsmanship</i>	Expresses craftsmanship through minimal care in the prints creation and poor presentation.	Expresses craftsmanship through moderate care in the prints creation and fair presentation.	Expresses craftsmanship with considerable care in the prints creation and good presentation.	Expresses craftsmanship with a high degree of care in the prints creation and excellent presentation.
	2.5 +	- 3 +	- 3.5 +	4 4.5 5
<i>Reflective response</i>	Very limited communication of thought processes and critical thinking in the poor reflection.	Moderately communicates thought processes and critical thinking in the fair written reflection.	Clearly communicates thought processes and critical thinking in the well written reflection.	Very clearly and effectively communicates thought processes and critical thinking in the excellent written reflection.
	2.5 +	- 3 +	- 3.5 +	4 4.5 5
Application				
<i>Transfers processes and techniques of darkroom, digital and manual manipulation</i>	Transfers darkroom, digital and manual image manipulating processes and techniques with limited effectiveness to the three prints.	Transfers darkroom, digital and manual image manipulating processes and techniques with some effectiveness to the three prints.	Transfers darkroom, digital and manual image manipulating processes and techniques with considerable effectiveness to the three prints.	Transfers darkroom, digital and manual image manipulating processes and techniques with a high degree of effectiveness to the three prints.
	2.5 +	- 3 +	- 3.5 +	4 4.5 5

Appendix AWQ 2O 2:3:1 - Critical Analysis: Photo Pair and Share

Initial Reaction

Credit Line Description

<p>Do you like it or not?</p> <p>What do you see?</p>	<p>Artist:</p> <p>Title:</p> <p>Media:</p> <p>Date:</p>
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Aesthetic Analysis

<p>Elements</p> <ul style="list-style-type: none"> • Line • Shape/Form • Space • Texture • Value • Color 	<p>Principles</p> <ul style="list-style-type: none"> • Dominance • Balance • Contrast • Movement/Rhythm • Pattern/Repetition • Unit
---	--

Technical Analysis

<ul style="list-style-type: none"> • Emotion • Symbols • Ideals • Style • Point of View • Rule of Thirds • Tight Crop • Framing • Proximity • Camera Angle
--

Critical Judgment

Extension / comparison

<p>Compare two photographs.</p> <p>Similarities?</p> <p>Differences?</p> <p>Which is better? Why?</p>

Hockney Joiner Assignment

Materials:

Camera
Colour film
Tripod for slower shutter speed and low light.
Flash for indoors
Bristol board
Glue / rubber cement
Scissors
Computers (digital)
Photo quality printer (digital)

Challenge:

Create a photomontage based on the David Hockney Joiner technique.

Imagining and Generating:

Think about

- § A favorite spot (bedroom, skate park, etc...)
 - § A unique viewpoint (goalie in net, walking the dog, snowboarding, etc...).
- The joiner should open up a 3D view.
- § Something happening over time (i.e.: a group of kids playing on playground equipment; shots of the same kids in different places).
 - § A telescoping theme showing an action in the steps that it happens (i.e.: a student riding a bike from a distance, up over a jump, and then away).

Planning and Focusing:

- § You may choose to work digitally.
- § You can shoot indoor or outside.
- § Plan out your subject / event and pay close attention to it's details and how you will show time. Remember you are not aiming to produce a photorealistic effect but rather an attempt at a collage that shows *space*, *time* and has a *narrative* aspect to it (It tells a very small story).
- § Consider

yourself in the photo like Hockney sometimes did.

§ Plan out your joiner a photo, consider what the center of interest is (focal point). Do not try to show too much remember you only have 1 roll of 24 frames. Think about how you will show time and what you want the viewer to look at.

Exploring and Experimenting:

- 1) Shoot at least one roll of colour film based. Remember that the ISO 400 film will not be suitable in a low light area unless you have a tripod. It is colour film you are using so try to include some colour in your location/event.
- 2) If your camera has a Program mode (P) you may use it for this assignment. If you're using a semi-automatic or manual camera remember to use your meter to get the correct exposure on every shot. You must also make sure your camera is correctly focused for each shot.
- 3) Do not move from your spot until you're done. You may tilt the camera up and down during the shoot, but do not change your shooting position too much. It is best to do the shoot all at once.
- 4) Practice shooting first. The idea behind Hockney's approach is to photograph a large scene by breaking it up into many smaller ones. You must think of your scene as having an invisible grid with overlapping squares placed upon it. Begin shooting with only your waist turned three-quarters to the left. Continue to shoot your first horizontal row of photos, remembering to always overlap the photo you just took, until you reach a position where your waist is turned three-quarters to the right. Begin to shoot the second row of horizontal photos as you did previously, but you must also overlap the top of this row with the bottom of the last row. Continue to shoot the entire scene always overlapping both vertically and horizontally until you complete the scene.
- 5) Shoot the real thing when you feel comfortable.
- 6) Bring the film in for processing on time.

You must **hand your exposed roll of film in by**

So it can be processed for you. If you do not hand it in on time, you will have to pay for your own processing.

Producing your Work:

When your prints return from the lab, you will assemble your joiner in class. All necessary materials will be provided. Please pay special attention to how you glue down the photos. Make sure the corners and edges are well adhered. Follow the directions given in class for using rubber cement.

The final **due date** and critique is on

Hockney Joiner Assignment

Materials:

Camera
Colour film
Tripod for slower shutter speed and low light.
Flash for indoors
Bristol board
Glue / rubber cement
Scissors
Computers (digital)
Photo quality printer (digital)

Challenge:

Create a photomontage based on the David Hockney Joiner technique.

Imagining and Generating:

Think about

- § A favorite spot (bedroom, skate park, etc...)
 - § A unique viewpoint (goalie in net, walking the dog, snowboarding, etc...).
- The joiner should open up a 3D view.
- § Something happening over time (i.e.: a group of kids playing on playground equipment; shots of the same kids in different places).
 - § A telescoping theme showing an action in the steps that it happens (i.e.: a student riding a bike from a distance, up over a jump, and then away).

Planning and Focusing:

- § You may choose to work digitally.
- § You can shoot indoor or outside.
- § Plan out your subject / event and pay close attention to it's details and how you will show time. Remember you are not aiming to produce a photorealistic effect but rather an attempt at a collage that shows *space*, *time* and has a *narrative* aspect to it (It tells a very small story).
- § Consider

yourself in the photo like Hockney sometimes did.

§ Plan out your joiner a photo, consider what the center of interest is (focal point). Do not try to show too much remember you only have 1 roll of 24 frames. Think about how you will show time and what you want the viewer to look at.

Exploring and Experimenting:

- 1) Shoot at least one roll of colour film based. Remember that the ISO 400 film will not be suitable in a low light area unless you have a tripod. It is colour film you are using so try to include some colour in your location/event.
- 2) If your camera has a Program mode (P) you may use it for this assignment. If you're using a semi-automatic or manual camera remember to use your meter to get the correct exposure on every shot. You must also make sure your camera is correctly focused for each shot.
- 3) Do not move from your spot until you're done. You may tilt the camera up and down during the shoot, but do not change your shooting position too much. It is best to do the shoot all at once.
- 4) Practice shooting first. The idea behind Hockney's approach is to photograph a large scene by breaking it up into many smaller ones. You must think of your scene as having an invisible grid with overlapping squares placed upon it. Begin shooting with only your waist turned three-quarters to the left. Continue to shoot your first horizontal row of photos, remembering to always overlap the photo you just took, until you reach a position where your waist is turned three-quarters to the right. Begin to shoot the second row of horizontal photos as you did previously, but you must also overlap the top of this row with the bottom of the last row. Continue to shoot the entire scene always overlapping both vertically and horizontally until you complete the scene.
- 5) Shoot the real thing when you feel comfortable.
- 6) Bring the film in for processing on time.

You must **hand your exposed roll of film in by**

So it can be processed for you. If you do not hand it in on time, you will have to pay for your own processing.

Producing your Work:

When your prints return from the lab, you will assemble your joiner in class. All necessary materials will be provided. Please pay special attention to how you glue down the photos. Make sure the corners and edges are well adhered. Follow the directions given in class for using rubber cement.

The final **due date** and critique is on

Appendix AWQ 20 2:3:3

Hockney Joiner Rubric

KU: /5 /5	T: /5	C: /5	A:	Total: / 20
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Level	Level 1 (50-59%) Passing but much below provincial standard	Level 2 (60-69%) Approaching provincial standard	Level 3 (70-79%) Meets provincial standard	Level 4 (80-100%) Surpasses provincial standard
Knowledge & Understanding				
Understanding compositional elements, principles, and shot techniques.	Demonstrates limited understanding of composition through the elements, principles and shot techniques.	Demonstrates some understanding of composition through the elements, principles and shot techniques.	Demonstrates considerable understanding of composition through the elements, principles and shot techniques.	Demonstrates a thorough understanding of composition through the elements, principles and shot techniques.
	2.5 +	- 3 +	- 3.5 +	4 4.5 5
Thinking				
Creative thinking and inventiveness	Uses limited creative thinking revealing little evidence of original thought.	Uses some effective creative thinking, though work lacks sincere originality.	Uses considerable creative thinking as work demonstrates originality.	Uses a high degree of creative thinking showing a unique level of originality.
	2.5 +	- 3 +	- 3.5 +	4 4.5 5
Communication				
Craftsmanship	Expresses craftsmanship through minimal organization in taking overlapping prints and poor care in montage assembly.	Expresses craftsmanship through moderate organization in taking overlapping prints and fair care in montage assembly.	Expresses craftsmanship with considerable organization in taking overlapping prints and good care in montage assembly.	Expresses craftsmanship with a high degree of organization in taking overlapping prints and excellent care in montage assembly.
	2.5 +	- 3 +	- 3.5 +	4 4.5 5
Application				
Connections between Hockney's Joiner style and personal spaces and experiences.	Makes minimal connections in using the Joiner technique to express a personal space or situation with limited effectiveness.	Makes moderate connections in using the Joiner technique to express a personal space or situation with some effectiveness.	Makes good connections in using the Joiner technique to express a personal space or situation with considerable effectiveness.	Makes excellent connections in using the Joiner technique to express a personal space or situation with a high degree of effectiveness.
	2.5 +	- 3 +	- 3.5 +	4 4.5 5

Comments
