



# New Jersey School of Conservation

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## Conservation Photography

Capturing images of the natural world is one of the most pleasurable and rewarding ways students can express their feelings about the environment, artistically. For many students who struggle with drawing, painting and other methods for creating art, photography provides a workable medium that allows them to be creative and expressive. The advent of digital photography has opened a new door into visual creativity, providing tools for self expression that were formally unavailable to all but the most accomplished artisan. This session introduces the students to the artistic power and potential of photography to change the way we interact with the natural environment, through the creation of inspirational images of the natural world.

### OBJECTIVES:

1. Students will understand the importance of photography in helping to protect and preserve the environment.
2. Photography will be a tool to encourage students to see the natural world through 'new' eyes.
3. Students will be able to analyze the qualities of a given photo and articulate what makes a photograph get someone's attention.
4. Students will demonstrate the application of the elements of composition in their own nature photographs.

### BACKGROUND INFORMATION:

See attached photography information sheet

### MATERIALS

- Example photographs to scatter around the table
- Digital Cameras (1 for every pair of students)
- Batteries and Memory Cards for the cameras
- Clipboards
- Pencils
- Photography Tips and Techniques Sheet
- Photography Challenge Field Sheet

*If printing and matting:*

- Card Reader
- Photo Printer
- Photo Paper
- Matte board
- Double sided tape or glue

## **PROCEDURE:**

1. As students enter the classroom have a selection of photographs scattered on the table. Instruct students to select a photograph that appeals to them.
2. Begin discussion by asking students the reasons why people take pictures of nature. Some responses may include: for fun, to remember a place/time, for aesthetic reasons, to evoke a strong feel to protect or preserve an area, to monitor change in the environment, to sell things such as in magazine ads, for motivation such as in posters with motivational messages, for money –professional photographer.
3. Proceed with a discussion of basic elements of design and composition in photography (see information sheet and poster, provided). Be sure to highlight topics such as lighting, reflections, color, rule of thirds, foreground, viewpoint, focusing and leading lines.
4. At the conclusion of this discussion have students share with the group what design or composition elements that were just discussed may be evident in the photo that they pulled aside at the beginning of class.
5. Tell students that they will be asked to take a number of pictures that will challenge them to see their environment in ways that they may not have thought of in the past. Review the different picture challenges that are listed on the next page and explain that each student should attempt at least one photograph from each category on the checklist. Working in pairs they should share the camera and share the responsibility for recording the information on the checklist.
6. Prior to leaving the classroom remind students of safety concerns when photographing animals or positioning themselves to get that great shot. Discuss the basic use of the camera and respect for the equipment. Be certain to point out how to use the macro setting.
7. If time or resources permit, allow approximately 30 minutes at the end of class to print out one photograph for each student and allow them to matte these photographs using matte board or mattes that have been pre-cut.

## **SUMMARY:**

As a culmination to the class have students share their photographs with the class and discuss what they learned. If possible, try to tie in a discussion of the importance of protecting the plant(s), animal(s), or habitat(s) that they depicted in their photograph.

## **Possible Extensions:**

- Return to school and display student images with a 1-2 line description of the photograph and the message it intends to convey.
- Hold a photo contest at school and ask students to enter photos into the main categories of light, composition, color and rule of thirds and ask the student body to vote for best images.

**Please note-** Instructors should format camera cards at the end of each class, be sure batteries are charged, and replenish the clip-boards with blank Photo Challenge Field Sheets. Checking on ink levels for the printer, and supplies for matting (matte boards, glue, tape) and printing (photo paper) would also be helpful.

## Image Check List

Each student will be given a check-list like the one below so that they can keep track of the pictures they are expected to take during the session.

### Conservation

### Photography

- Close-up (Macro)**
- New perspective**  
(down low or up high)
- Landscape**
- Leading Line**
- Creative Lighting**  
(shadows or reflections)
- Vertical Shot**
- Still Life**
- Patterns in Nature**
- Photographer's Choice I**
- Photographer's Choice II**

### ***Remember these tips:***

- ✓ Pay attention to lighting.
- ✓ Consider your viewpoint.
- ✓ Think about where to focus.
- ✓ Use the rule of thirds.
- ✓ Avoid clutter.
- ✓ Hold the camera steady.

# Conservation Photography

## Tips and techniques

### Lighting

Avoid harsh shadows.

Avoid sun flares by hiding the sun behind an object like a tree. Experiment with angles of light (back light, side light etc.). Dawn and dusk provide the best light for landscapes.

If the weather is bad, look for contrasting colors.

Remember your flash is only effective 6-10 feet from the object.

### Viewpoint

Get in close (but do not put yourself in danger). Lie down or get up high.

Look the subject in the eye.

### Focusing

Lock the focus-then move the subject off center.

Focus on: eyes- for people, stamens/pistils- for flowers, antennae- for insects.

### Composition

Use the rule of thirds.

Move the subject out of the middle.

Watch your horizon lines. Keep them straight and use the 1/3 rule. Use leading lines to draw your eye into the picture.

Put something of interest in the foreground.

### Avoid Clutter

Use a simple background

Fill the frame with your subject by moving in close to exclude any extraneous elements.

If practical, move the subject to a better location with a cleaner backdrop or carry a plain background with you.

### Additional tips

Press the shutter button smoothly. Hold the camera steady.

Take some vertical pictures.

Use reflections.

Partial images add interest to some photos.

Think about the message you want to convey with your picture.

Take your time; pay attention to what you have included in your viewfinder.

## **NJ Student Learning Standards**

### **VISUAL AND PERFORMING ARTS**

- 1.2.8.Cr1b: Organize and design artistic ideas for media arts productions
- 1.2.8.Cr3a: Experiment with and implement multiple approaches that integrate content and stylistic conventions.
- 1.2.8.Cr3b: Communicate an intentional purpose and meaning utilizing varying points of view and perspective.
- 1.2.8.Cr3c: Refine and modify artistic choices to reflect an understanding of purpose, narrative structures, composition, audience, and context.
- 1.2.8.Pr5a: Develop and demonstrate a variety of artistic, design, technical, and soft skills (e.g., self-initiative, problem solving, collaborative communication) through performing various roles in producing media artworks.
- 1.2.8.Pr5c: Develop and demonstrate creativity and adaptability in standard and experimental ways, to construct, achieve assigned purpose, and communicate intent in media artworks.
- 1.2.8.Pr6b: Analyze benefits and impacts from presenting media artworks.
- 1.2.8.Re9a: Evaluate media art works and production processes at decisive stages, using identified criteria, and considering context and artistic goals.
- 1.2.8.Cn10a: Access, evaluate and use internal and external resources to inform the creation of media artworks, such as cultural and societal knowledge, research and exemplary works.
- 1.2.8.Cn11b: Explain and demonstrate how media artworks expand meaning and knowledge, and create cultural experiences (e.g., via local and global events considering fair use and copyright, ethics, media literacy).

### **CLIMATE CHANGE**

- 1.2.8.Re7b: Compare, contrast and analyze how various forms, methods and styles in media artworks affect and manage audience experience and create intention when addressing global issues including climate change.
- 1.5.8.Cn11b: Analyze and contrast how art forms are used to reflect global issues, including climate change.
- 9.4.5.DC.8: Propose ways local and global communities can engage digitally to participate in and promote climate action (e.g., 6.3.5.GeoHE.1).

### **LIFE LITERACIES AND KEY SKILLS**

- 9.4.5.CT.2: Identify a problem and list the types of individuals and resources (e.g., school, community agencies, governmental, online) that can aid in solving the problem (e.g. 2.1.5.CHSS.1, 4-ESS3-1).

- 9.4.5.CT.3: Describe how digital tools and technology may be used to solve problems.
- 9.4.5.DC.8: Propose ways local and global communities can engage digitally to participate in and promote climate action (e.g., 6.3.5.GeoHE.1).
- 9.4.5.TL.4: Compare and contrast artifacts produced individually to those developed collaboratively (e.g., 1.5.5.CR3a).
- 9.4.5.TL.5: Collaborate digitally to produce an artifact (e.g., 1.2.5CR1d).
- 9.4.8.GCA.2: Demonstrate openness to diverse ideas and perspectives through active discussions to achieve a group goal.
- 9.4.8.IML.3: Create a digital visualization that effectively communicates a data set using formatting techniques such as form, position, size, color, movement, and spatial grouping (e.g. 6.SP.B.4, 7.SP.B.8b).
- 9.4.8.TL.6: Collaborate to develop and publish work that provides perspectives on a real-world problem.

## **ENGLISH LANGUAGE ARTS**

- SL.2. Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally.
- SL.5. Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.
- SL.7.4. Present claims and findings, emphasizing salient points in a focused, coherent manner with pertinent descriptions, facts, details, and examples; use appropriate eye contact, adequate volume, and clear pronunciation.
- SL.8.2. Analyze the purpose of information presented in diverse media and formats (e.g., visually, quantitatively, orally) and evaluate the motives (e.g., social, commercial, political) behind its presentation.
- SL.8.5. Integrate multimedia and visual displays into presentations to clarify information, strengthen claims and evidence, and add interest.

## **COMPREHENSIVE HEALTH AND PHYSICAL EDUCATION**

- 2.1.8.PGD.4: Analyze the relationship between healthy behaviors and personal health.

## **COMPUTER SCIENCE AND DESIGN THINKING**

- 8.1.5.DA.3: Organize and present collected data visually to communicate insights gained from different views of the data.

## **SOCIAL AND EMOTIONAL LEARNING**

All of our field lessons integrate the concepts of self-awareness, self-management, social awareness, responsible decision-making, and relationship skills found in the [New Jersey's Core Social and Emotional Learning \(SEL\) Competencies](#).