



Topic: **MANIPULATING DIGITAL IMAGES**

Grade : 9-12

An integrated lesson plan
covering 3 sessions of
approximately 1.5 hours
each.

Lesson-Planning Approach

Some learners perceive their “world” as a whole, where all things are interconnected and dependent upon each other. These “integrated” students face major challenges in coping with our dominant educational, social, and economic systems, which tend to present information in a linear fashion without the necessity of integration into meaningful context. Integrated students are at-risk of failing as they attempt to grasp information in ways that do not match their experience. Among large populations of at-risk students are many from Native American and similar cultures that do not regard their world as a sum of parts but as a blend of all that they experience.

This lesson plan does include some traditional, linear approaches to delivering information (checklists, rules, analysis, problem solving and organization). In addition to the traditional, linear delivery of information, this lesson plan also includes some of the following strategies, designed to appeal to at-risk students as they learn academic/life skills:

- ❖ Integration of technology
- ❖ Story telling/anecdotal information
- ❖ Non-competitive group and team work
- ❖ Performance-based assessment and rubrics
- ❖ Visual presentations and practice through technology and other means
- ❖ Project-based assignments that integrate family and community
- ❖ Activities appealing to multiple intelligences (Gardner)

Lesson Overview

This lesson is designed to teach students how to manipulate digital images. Students will work with pre-loaded images as well as images they take themselves with a digital camera. They will analyze and write about their work at the end of the lesson using complete sentences, correct grammar and spelling. They will create a page will four manipulated photos from the same original image.

Lesson Objectives

Project Objectives: When students complete this session, they will be to:

- Create a single visual page using one image in multiple ways
- Successfully use Adobe Photo Deluxe
- Use a digital camera to gather images
- Successfully manipulate digital images

Integration of Other Functional/Academic Skills: (Critical thinking is required throughout the lesson.) Students will be able to:

- Evaluate their work through writing
- Provide answers to specific questions
- Come up with individual answers/problem solving solutions to a given challenge set before them

State/National Standards (Complete as Appropriate)

- 1) Students know and apply elements of art, principles of design and sensory and expressive features of visual arts.**
 - Students will be working with various elements and principles of design as they manipulate the image.
- 2) Students know and apply visual arts materials, tools, techniques and processes.**
 - Students will be using the computer as a visual arts tool as well as learning new techniques to apply to images.
- 3) Students analyze and evaluate the characteristics, merits and meaning of works of art.**
 - Using the criteria given at the beginning of the project, each student will write about and evaluate his/her finished piece of artwork.

Websites

Required: www.encarta.com

Support: www.encarta.com

Pre-requisites

- Read at sixth grade level or above
- Basic computer knowledge

Required Materials

- 1 computer, with Internet connection and Photo Deluxe loaded for every two students.
- Digital camera available to be used in groups outside of classroom instruction time.

Handouts

- Photo Deluxe Activity Handout #1
- Digital Camera Images Activity Handout #2
- Self-evaluation Writing #3

Required Equipment/Technology

- 1 computer, with Internet connection and Adobe Photo Deluxe loaded for every two students.
- A data/video projector

THE LESSON

Note: Students do not learn from what you do but from what you have them do.

Preparation

Activity	Instructor Notes
Discuss image programs. Find out what knowledge and /or experience	Talk about several different image programs. Query students to see what prior experience they

students have with this program or one that is similar.	might have. Talk about first attempts at using the program, what seemed really fascinating yet easy. Then discuss more in depth uses of the program.
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Presentation

Observe how to use Adobe Photo Deluxe program.	Show students how to use the program using a data/video projector. Go through each step, from opening the program; showing the “Guided Activities” steps. Show how to save the completed image as a JPEG properly named.
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Performance and Practice

Instructions for students	Teacher notes
Students follow along as the teacher goes through the program step by step using the data/video projector. Handout #1 will be completed. Pay attention to what is happening on the projector as well as what is being asked on the handout. Check off each step as it is completed.	Follow the steps in the handout so students can follow along in a sequential manner. Make sure to watch the class as you move along so students are not left behind. Check for understanding through direct questioning. If a student is particularly slow, make use of a highly capable student with prior experience as a helper. These students should have already been identified in the preparation activity.
Complete the written self-evaluation. Make sure to read and comply with all the requirements.	Go over the instructions verbally with the class. Make sure to emphasize; answering the question that is asked concisely; using complete sentences; using correct spelling; using correct grammar and writing answers that relate directly to the work the student has completed.
Complete the rubric for Adobe Photo Deluxe.	
Complete Handout #2. Listen carefully to the instructions so you are able to perform successfully and complete the requirements. It is important that you become an independent worker and can rely on your own knowledge and skills.	Discuss camera care. Show how the camera should be held when in use. Talk about appropriate places the camera could be stored for safe keeping. Make students aware of the financial responsibility of having the camera in their care. Make sure still life compositions, still life objects; lighting sources, etc. are ready and/or available for student use ahead of time. All photographs for this assignment will be taken in the classroom. Move throughout the classroom to make sure students are on track. Give suggestions, comments, etc. but try to make students figure out things for themselves before

	giving individual help.
Fill out the self-evaluation portion of the SMARTEE sheet using all the new terminology correctly. Write in complete sentences using correct spelling and grammar. Make sure to answer the question. Read through the questions and determine exactly what each one is asking. Your writing should directly relate to your project. Turn in completed self-evaluation.	Ask questions and clarify if necessary. Read through the self-evaluations. Make sure all the terms have been used correctly. Check for correct use of grammar, punctuation, legibility, content and complete sentences. If there are errors, make notes for the student and return so it can be corrected. Credit will be given when corrections are made. Complete teacher evaluation. Give written feedback on the positives first then make suggestions for improvement.
Complete the project rubric. Look at your completed project while filling out the rubric. Add up the total points and assign yourself a grade based on the grading scale at the bottom of the page. Turn in your rubric.	Clarify and answer questions if necessary. Go over the student processed rubric. Make changes if necessary. Add up points and assign final grade.

Lesson Assessment Strategy (Formative – As the lesson progresses)

Preparation, Presentation and Overall Implementation (Instructor)

- 1) Are the instructions and expectations for the lesson clear from the beginning?
- 2) Has the rubric been discussed so students know how they are going to be evaluated from the beginning?
- 3) Have I spent sufficient time modeling the skills I want the students to achieve?
- 4) Did I do any sort of pre-assessment to determine what prior knowledge students had before this lesson?
- 5) Have I created a lesson and implemented it in such a way to appeal to most learning preferences?
- 6) How are students connecting to the lesson objectives? Do they see a way this can be incorporated into their own life needs?

Performance and Practice (Student)

- 1) Do all students have the skills to follow instructions? If not, what modifications do I have in place to address their needs?
- 2) Are all the students participating in the activities either by active observation or by voicing their thoughts?
- 3) Have I identified each student's particular strength and have I created a learning environment that allows the strengths to help the individual as well as the group?

- 4) Am I getting the results I desire?

Technology

- 1) Is the technology working?
- 2) How are the students reacting to the technology and what modification should I make when teaching this lesson again?
- 3) Are the students able to transfer this knowledge over into other areas?

Handout

- **Photo Deluxe Activity Handout #1**
- **Digital Camera Images Activity Handout #2**
- **Self-evaluation Writing #1**
- **Self-evaluation Writing #2**

Technology Checklist

- **1 computer, with Internet connection and Adobe Photo Deluxe loaded for every two students.**
- **A data/video projector**

Lesson Rubric

- **RUBRIC FOR ADOBE PHOTO DELUXE LESSON HAND-OUT #1**
- **RUBRIC FOR DIGITAL CAMERA IMAGES MANIPULATION LESSON HAND OUT #2**

ACCESS TO ALL PARTS OF THE LESSON
MANIPULATING DIGITAL IMAGES

All documents are attached to this lesson but may be quickly accessed by using the links below. LINKS DO NOT FUNCTION IN ACROBAT. SCROLL DOWN FOR DOCUMENTS.

- [LP3SMARTEE](#)
- [LP3WORKSHEET](#)
- [LP3WORKSHEET2](#)
- [LP3RUBRIC](#)
- [LP3RUBRIC2](#)

COLORADO VISUAL ARTS STATE STANDARDS

- 1) STUDENTS RECOGNIZE AND USE THE VISUAL ARTS AS A FORM OF COMMUNICATION.
- 2) STUDENTS KNOW & APPLY ELEMENTS OF ART, PRINCIPLES OF DESIGN & SENSORY & EXPRESSIVE FEATURES OF VISUAL ARTS.
- 3) STUDENTS KNOW & APPLY VISUAL ARTS MATERIALS, TOOLS, TECHNIQUES & PROCESSES.
- 4) STUDENTS RELATE THE VISUAL ARTS TO VARIOUS HISTORICAL AND CULTURAL TRADITIONS.
- 5) STUDENTS ANALYZE & EVALUATE THE CHARACTERISTICS, MERITS & MEANINGS OF WORKS OF ART.

SMARTEE SHEET - ASSIGNMENT: MANIPULATING DIGITAL IMAGES

NAME: _____

ART SHELF NUMBER: _____ BLOCK: _____

TEACHER: KIMBERLEY SHEEK

BASIC PROJECT DESCRIPTION

This lesson is designed to teach students how to manipulate digital images. Students will work with pre-loaded images as well as images they take themselves with a digital camera. They will analyze and write about their work at the end of the lesson using complete sentences, correct grammar and spelling. They will create a page with four manipulated photos from the same original image.

S STEPS - This instructs you step by step on the procedures to follow so you may successfully complete this project. **1)** Actively involve yourself in the classroom discussion about manipulating digital images. Share your prior knowledge, inexperience, etc. **2)** Complete handout #1, Adobe Photo Deluxe Activity Sheet. Follow each step from beginning to end. Check out your rubric on this lesson so you know ahead of time how you will be evaluated. It is important to pay attention so in the future you can use this program independently. **3)** Become an active participant in the classroom discussion about digital cameras. Share your past experiences. **4)** Complete the Manipulating Digital Images Activity Worksheet. Follow each step from beginning to end. Check out your rubric on this lesson so you know ahead of time how you will be evaluated. **5)** Select your best manipulated original image and change its size to approximately 5" x 7". Print it out on one sheet of photo quality paper and turn it in as your final. **6)** Complete the written self-evaluation when you complete this activity.

M MEDIA - materials used: Adobe Photo Deluxe, digital camera, and computer photo quality paper.

A ART TERMS - **Adobe Photo Deluxe, cut, paste, manipulate, crop, transform, save, lighting, composition, posterize, impressionist**

R REQUIREMENTS: Check this often to make sure your project includes **ALL** of the requirements:

- 1) Complete the Adobe Photo Deluxe Activity Handout.
- 2) Complete the Manipulating Digital Images Activity Handout.
- 3) Complete the written self-evaluation for both of these handouts. It is at the back of the SMARTEE sheet.
- 4) Complete your final manipulated image and print out on photo quality paper.
- 5) Fill out the rubrics for both activity worksheets.
- 6) Turn in all required work by the deadline.

T TIME FRAME - Approximately three class blocks

E EVALUATION - Student evaluation and assessment of the project: the student must complete this section. It is expected that the self-evaluations will be done honestly. In this section you are to write directly about your work. You should talk about your strengths and weaknesses; things you could do better; things that are done exceptionally well, etc. You must use all of the new art terminology correctly in your self-evaluation. It must be legible, both in terms of readability as well as the intended meaning. Spelling is also important. All writing must be done using complete sentences.

This writing tells me about your work. You should use such techniques as compare and contrast, analyze and evaluate. What you think about the work you have done? **Defend your statements**. For example, just writing phrases such as, "I like it." is **not** good enough. Why do you like it? You must also give yourself a written grade. You should use the rubric provided to help you determine what grade applies.

TERMS: **Adobe Photo Deluxe, cut, paste, manipulate, crop, transform, save, lighting, composition, posterize, impressionist**

SELF-EVALUATION QUESTIONS FOR ACTIVITY #1

- 1) What does it mean to manipulate an image?

2) How can you move an image from one location to another?

3) What were some of the ways you manipulated your images/image when you went into the "transform" section of the program?

4) What program did you use during this assignment? What did you particularly like about it?

5) Which of your images do you like the best? Why?

E EVALUATION - Teacher evaluation: Most comments will be noted on the rubric specifically designed for and attached to each project's individual SMART^{EE} sheet.

MANIPULATING DIGITALIMAGES -©KimberleySheek2001

ADOBE PHOTODELUXE ACTIVITY SHEET

NAME _____ BLOCK _____ SHELF# _____

Check each box as you complete the activity.

Discuss the topic	
Open the program (Photo Deluxe)	
Open a file image (guided activities; select “ponies.jpg”)	
Open “Guided Activities” – Go to “<u>Size Orientation</u>”	
◆ Crop the image	
◆ Change the image size	
Under “ Guided Activities ” – Go to “ <u>Quality</u> ”	
◆ Apply “instant fix”	
◆ Experiment with “Brightness/Contrast”	
◆ Experiment with “Color/balance”	
◆ Save your modified image in this format, for example: ksheekponiesmod	
Under “ Transform ” – experiment with: ◆ Posterize ◆ Impressionist ◆ Handcolor ◆ Tint ◆ Old Fashioned	
Save at least three different examples you created using different transformations. Save in this format: Ksheekponiesposterize ksheekponiesImpre	
Complete your self-evaluation upon completion of these activities.	

DIGITAL CAMERA IMAGES ACTIVITY HANDOUT

Name _____ Block _____ Shelf # _____

Discuss the topic.	
Show how the digital camera works.	
Discuss camera care.	
Allow students to handle and look at the digital cameras.	
Each student will take 2-3 photos of arrangements set up in class with various lighting applied.	
Students work downloading the images into the computer from camera floppy disk.	
Students name their own photos so images can be readily identified and save onto a floppy disk as a JPEG file.	
Students open Adobe Photo Deluxe. Then open "On Your Own"	
"Selection" Get Photo – Choose from a photograph taken by the student using the digital camera saved on student's floppy disk -	
Students experiment with;	
<ul style="list-style-type: none"> ✿ Fill ✿ Gradient ✿ Drop Shadow ✿ Feather ✿ Outline ✿ Special Effects 	
Save and name three different images as a JPEG; Save in this way: first initial, last name, imagemanip,	





number of image For example: ksheekimagemanip#1	
Complete the written self-evaluation. Follow all directions to get credit.	

Name:

Block:

Shelf Number:

RUBRIC FOR ADOBE PHOTODELUXE LESSON HAND-OUT NUMBER 1

SCORE	0	1	2	3	4	
ADOBE PHOTODELUXE PROGRAM  SIZE  ORIENTATION  QUALITY  TRANSFORM	Can not operate the program	Able to open the program & move within but with poor results	Can operate the program with fair results	Can operate the program and do what is asked	Uses the program with skill. Can do more than is asked with confidence	Score for the Adobe Photo Deluxe skills multiplied x 4
FINDING IMAGES	Can not find required images	Can find some images with help	Can find most images without help	Can find all images that are required	Can gather images of all types independently	
SAVING FILES	Can not save files correctly	Can save some files, as required, with help, other times loses files	Can save most files, as required, without help	Can save all files consistently, as required, without help	Can save all files consistently, as required, in any format without help	
SELF-EVALUATION WRITING	Did not complete the required writing	Attempted the writing portion but failed to sufficiently answer the questions; use correct spelling, grammar; complete sentences, etc.	Answered most questions asked but still had problems with spelling, complete sentences, grammar, etc	Answered all questions asked; able to apply writing directly to work done; few if any grammatical mistakes	Answered all questions in a direct and concise fashion; evaluated work thoroughly and with depth of thought; no grammatical errors	
SCORE	BELOW 16 FAILING	17-19 POOR	20-22 PARTIALLY PROFICIENT	23-25 PROFICIENT	26-28 ADVANCED	

NAME:

BLOCK:

SHELF NUMBER:

**RUBRIC FOR DIGITAL CAMERA IMAGES MANIPULATION LESSON
HAND-OUT NUMBER 2**

SCORE	0	1	2	3	4	
CAMERA CARE	Lacks care/knowledge about camera care; shows disregard for safe keeping of equipment	Understands camera needs safe handling but is thoughtless about care or where camera is left.	Most of the time care is sufficient to ensure camera safety	Camera care is good; shows proper handling and concern about safe keeping of camera.	Camera care is always a priority when handling or storing the camera	
PHOTOS	Did not take required photos	Took required photos with little or no thought about the end results	Photos were taken with some thought about creating an interesting picture	Photos were taken with thought in relation to composition, lighting, contrast, general interest, etc	Photos were taken with great care to get the highest quality photograph possible. Lighting, composition, objects, etc were altered by the photographer to ensure success	
SAVING IMAGES	Did not save the images as required	Saved the images as required but only with help from others	Saved the images as required with little difficulty	Saved images as required without help from others	Saved images as required with no help and figured out how to save in	

MANIPULATION OF IMAGES					many different formats for future use	
	Unable to manipulate images	Could manipulate images but only with lots of one on one help	Able to manipulate images with little extra help in a rudimentary fashion	Able to manipulate images independently	Able to manipulate images in a creative or thought provoking way employing self-generated ideas	
WRITING SELF-EVALUATION	Did not complete the required writing	Attempted the writing portion but failed to sufficiently answer the questions; use correct spelling, grammar; complete sentences, etc.	Answered most questions asked but still had problems with spelling, complete sentences, grammar, etc	Answered all questions asked; able to apply writing directly to work done; few if any grammatical mistakes	Answered all questions in a direct and concise fashion; evaluated work thoroughly and with depth of thought; no grammatical errors	
SCORE	BELOW 11 FAILING	12-13 POOR	14-15 PARTIALLY PROFICIENT	16-17 PROFICIENT	18-20 ADVANCED	TOTAL=