Can You See What They See?:
A Photographic Journey through the Eyes of Children

Janet Purvis
Durkee Elementary School

INTRODUCTION

I was recently given the wonderful responsibility of being the keeper of the family photos. My mom gave me several boxes of pictures that, up to then, had been hidden away in her closet and removed for family reunions or when someone died. This is a wonderful responsibility, one that I take very seriously. It is somewhat empowering also, as I now have the old photos that just a few members of the family know about. My mother and grandmother and great grandmother had guarded them and now I feel I must do more. I must preserve them for future generations will want to see what our ancestors looked like and how they dressed and, in some cases, if we can find any resemblance to ourselves. Preserving these photographs may be the link to our family that generations of yet unborn can use to keep in touch with their roots.

As I look through the pictures, I find my mind wandering back to my childhood when my grandmother would take them out and tell me about some of the people. During this reminiscing she would have the same look on her face that I have when I look through my current family album. Remembering the family, the way they were back when she was young, remembering those that are gone, but not forgotten. We don't have any spectacular photographs, none that might interest anyone other than family, but they are special to me because they are of my family. My granddad, grandmother, great grandmother, my mom and her sister, Aunt Lue, on the way to California during the dust bowl era. My dad's mother, Grandma Ollie, my cousins, whom I have not seen since we were five or six years old, and me outside Grandma Ollie's house. The last picture we have that was taken of my dad before he was taken from us in a trucking accident. My dad holding my little brother Larry upon the hood of our 1948 baby blue Plymouth. I am in the picture, too, leaning against the front fender – the three of us, frozen in time by that one very special photograph. Pictures of other family members that have passed on, that have grown up and moved away, pictures with memories. Pictures of people I have been told are kinfolk or friends of my relatives. Most of the pictures I inherited are of people. Of course you can tell where they were taken by the background, but they were taken of the people, not for the background. One picture I have always wondered about is of an older woman. She is wearing a black dress that makes her look so sinister. I have been told that she was my great, great, great aunt and that it was taken just after her husband died. She was not sinister, just sad. All these pictures have a history, my family history, and are important only to my family. Did I say I didn't have any spectacular photographs? Perhaps to anyone else I may not but in my eyes and in the memories of family members I have some of the most important photographs ever taken.

As technology progresses so does the manner in which we store our family photos. My most recent pictures are on CDs or memory sticks. Photographs of butterflies, birds, school events, clouds outside the airplane window, family, vacations, and pictures of the first ever Weaver-Hahn Family Reunion. It is a much easier way of storing all the pictures taken during a vacation or family reunion or family gathering. One day I hope to have all our photos transferred to CDs or memory sticks, so they can be shared with other family members more often and easier. But for now I keep those old photos as safe as possible, taking them out every so often just to see if I can see myself in the faces staring back at me. Remembering how it felt to wear my first ever store

bought dress (it was made of lavender taffeta) that Memorial Sunday so long ago. Memories in a box waiting to be opened.

Background

I teach second grade in a title one elementary school. Most of my students are from low socio-economic homes and a few are being raised by one parent, which from necessity means that most likely they have never been to a museum to see the vast collection of photographs from world-renowned photographers. It also means they probably have never been taught the importance of preserving the past and learning from the past. I would venture to say that too few have been taught how important it is to learn what those photographs can teach us about the past and how they influence our future. Upon inquiry last year I discovered that very few of my students have photographs of their grandparents, great grandparents, and other assorted family members – their ancestors. Most know what country they come from but no other details. It is my desire to awaken in my students the desire to learn more about their family via photographs, even if they have to start with the eldest in their family today and write their stories as a way of learning about the past and connecting it to their future.

As teachers we want our students to be observant. When I tell them to look at the trees in the school yard, the leaves, the plants, butterflies, a statue, a picture, but they are not allowed adequate time to investigate nor are they instructed as to what to look for, what we expect them to be seeing. They need time to learn to really see, to touch, to smell, to hear. Unfortunately we do not always have the time to allow our students to make an observation or to investigate, nor do we have the tools necessary for them to complete the task. How do we expect them to complete the task without giving them the tools to do the job? I am hoping photography can be that tool; a method of expression that can be used by children whereby they will be able to learn more about their world, to learn more about what they see everyday. Visual literacy via the use of their own photographs. All I have to do now is get the cameras, find the time, and allow my students to learn. Piece of cake!

History of Photography

Years before anyone thought of taking a photo the Anasazi drew pictures on cave walls. These cave drawings are primitive yet one can tell what animal they drew and decipher events that they felt important and have been preserved for centuries on those walls. Perhaps these drawings came about while watching shadows on the cave walls or maybe someone simply decided to record what they had seen and what had been happening. Or perhaps they were put there out of boredom. After all, what else could you do on a cold rainy day in a stuffy cave? Pure speculation, but since no one is around to know for sure, this would make a good class discussion and one could bring in the graffiti of today as a similar art form. I am not suggesting that the cave painters were just defacing their living quarters or the precursor to present day gang members. Perhaps they were commissioned to do the drawings or the resident artists with no other place to draw. One can only speculate and enjoy the art they left behind.

Fast forward a few centuries and you have ancient man showing images on the walls in darkened rooms via a pinhole. They called it *camera obscuras*. The term *camera obscura is Latin* for "darkened chamber." In a camera obscura, light enters through a lens in one side. It is then reflected by a mirror forming an image on the screen at the top of the camera. There the image easily can be traced onto paper. The camera obscura was first used in China in the seventh century. Alhazen, a 10th century Ababaian philosopher, used one to study the sun. The camera obscura was first described in detail in the 15th century by Leonardo da Vinci (Senior). In 1727 Professor J. Schulze accidentally created the first photo-sensitive compound when he observed that a flask containing a mixture of chalk, nitric acid, and silver darkened when it was exposed to sunlight (Greenspun). It didn't stop here. No indeed not. Later when Nicephore Niecpe used a camera osbcura with photosensitive paper and created a permanent image, well, you can imagine how exciting that was. Photography as we know it was just around the corner.

By 1834 Henry Fox Talbot was creating positive images using paper soaked in silver chloride and fixed with a salt solution. Three years later, 1837, Louis Daguerre created images on sliver-plated copper, coated with silver iodide. This process produced photographs that appear and disappear when photograph is looked at from different angles. They were “one of a kind” and could not be duplicated. Frederick Scott Archer went even further and improved the photographic method by spreading a mixture of colloidal and chemicals on sheets of glass. This process permitted unlimited reproductions, and although the process was published, it was not patented. Was this an oversight or what? As the century progressed, so did photography. By 1855 direct positive images on glass and metal became popular in the United States and during the American Civil War. Mathew Brady and his staff (mostly staff) exposed 7000 negatives. Most were not shown to the public because of their graphic nature.

George Eastman came on the scene in 1880. He set up Eastman Dry Plate Company in Rochester, New York. Then in 1888 the first Kodak camera, with a continuing 20-foot-roll of paper, enough for one hundred 2.5 inch diameter circular pictures was put on the market. By the next year Kodak had improved their camera and it held a roll of film instead of paper. The Kodak Brownie box roll-film camera was introduced in 1900 (Greenspun). My first camera was a Kodak and for years I thought it was the only kind of camera available. Of course it wasn't, but it was the most popular and the most economical camera of the time. Everyone I knew had a Kodak. We didn't call it a camera. When someone wanted to take a picture we were told to go get the Kodak. Everyone knows we meant to get the camera. I was almost grown before I knew there were any other brands of cameras.

Fuji Photo Film, founded in 1934, made cameras and lenses too. Hasselblad offered its first SLR (single lens reflex) for commercial sale. A SLR it is a type of camera where you are actually looking through the lens and seeing what the camera will capture. If you have any obstruction in front of the lens you see it in the view finder, too. The older cameras did not have the SLR and you could have your finger over the lens and not know it. Pentax was introduced in Japan in 1948. East German Zeiss in 1949, Nikon in 1959, and the first instant film was developed by Polaroid in 1963. I remember those first Polaroid pictures. You had to keep the pictures warm so you put it under your arm. We were told it would develop faster that way. On a hot summer day you could watch it appear before our eyes. Back then it was just short of a watching a miracle. Minolta marketed the world's first autofocus SLR in 1985. No more having to focus before shooting. Not having to focus meant you could capture candid shots much easier. Action shots were all the rage then, too. Today it is difficult to find a conventional SLR, and with so many digitals on the market one might even ask why have a SLR when you can have a digital? Just recently some the newer digital cameras are SLR. Nikon has a very nice one, very pricey but nice.

Cameras keep getting more and more sophisticated and totally automatic. You can see the picture as soon as you push the button, no more waiting to see if the shot is what you wanted. I could have used that mode on the old Kodak box camera. It would have saved a lot of money that was used to develop people and animals with half a head. But then, if it had been available, I would not have learned as much about taking pictures as I did. Valuable lessons like keep your finger off the lens or you will take a picture of your finger or even worse a dark blob instead of a picture, and always check the flash cube to make sure you haven't used all four. Oh, yes, the flash-cube. Before the cube I singed my fingers a lot removing the single flash bulb, so I could take another picture. With the cube you could take four pictures before having to eject it and adding another one. Oh, the good old days of photography. I still have some of those first pictures.

Today when I take a picture, my camera decides if it needs a flas. I don't even give it a second thought. I miss my SLR and the array of lenses that were always in my camera bag. I miss the action shots, my sons in mid air as they dove into the pool, a hummingbird as though it was hanging in the sky with outstretched wings. I don't miss the times when my film did not catch on the reel and didn't advance or the times it got caught when I was rewinding and I had to take the

camera to the shop to have the film taken out rather than loose all the pictures. I don't miss changing film and hoping I can get another roll in before something exciting happened. I use digital cameras almost inclusively now. I have missed some great action shots because the shutter speed is not fast enough and some pictures have been erased because of a faulty memory stick. Having a memory stick capable of taking in excess of 1500 shots is great and not having to carry around all those canisters of film is so much better. Memories can be recorded by any camera, and I really prefer digital. What comes next is anyone's guess. I just hope it includes faster shutter speeds. I really do miss taking action shots.

Significance of Photographs

Photographs are bombarding us every day. From the morning news to the nightly news, from the front page of the daily newspaper, celebrity magazines, gossip tabloids, to text books we have grown dependent on visual images are everywhere. These images cause a wide array of emotions that are meant to catch and hold our attention. A recent copy of *Instructor Magazine* displayed a woman holding a sign which read "$104,496." This was an immediate attention grabber and almost demanded that the reader open the magazine to see what it meant and how it related to the headline "WE MAKE $100 GRAND." Yes, I was very curious and went right to that article. It seems that some teachers are actually making $100,000 a year. It was quite eye-opening, too. Inside the same magazine advertisers used photographs of happy children using dry-erase boards and markers. Every child in the photo had the correct answer. Immediately one is led to believe that using this product must make kids smarter. Perhaps I should look into this product for my students. After all I want them to be successful, and if this product will do it…? You get the picture? Photograph actually. A photograph of success, to make one believe that they have a valid product. *Prevention Magazine* touts "The Secret of Accelerated Fat Loss" with a photo of a very thin, extraordinarily happy woman. She has both hands raised high in the air, a sign of victory no doubt. Well, good for her, but what did she look like before she lost weight? Does it show the truth or is it just an actress? It takes a look inside the magazine to see just what another person went through to loose a lot of weight. No, the person on the cover was not the same as the one inside the magazine, but I didn't expect it to be.

Gardener's Supply Company catalog flouts the superiority of their plants, as though using their products in any soil will grow such beautiful plants. It strongly suggest that tomatoes will grow bigger if you use the "Red Tomato Ladder" they are selling, and another picture shows a very healthy plant in each section of their seed starting system. Even the caption under the picture "enjoy nearly 100% seed germination" reaches out to the reader. What if I don't use this seed starting system does it mean that my seeds won't germinate? If I could grow flowers like those pictured in *High Country Gardens,* we would have butterflies and hummingbirds in our school habitat all year. They wouldn't even bother to migrate. There would be so much nectar they could forget about migrating and live at our school the year round. While that would be terrific, it might make teaching explain migration a little difficult.

Advertisers are paid very well for designing ads to make sure that a particular product sells. How many of you have gone grocery shopping and bought more than you intended? All the pictures used on canned goods, chip bags, soup cans, make the food look, well, "home cooking good." Maybe even better than homemade. They are close to perfect and one can almost hear the compliments from our family and smell the aroma of the food. Oh yes, photographs can do that. Advertisers know how to use those photographs, they want us to buy their products and we do. The use of photographs for advertising is just the tip of the iceberg, so to speak, when it comes to the use of photographs.

Professional photographers use their special techniques to arouse the viewer's emotions all the time. Anne Gettis is known for her baby pictures. Photographs of tiny babies displayed as parts of fruit, flowers, vegetables and they look as though they belong. One look can evoke oohing and aahing and perhaps even cause some people to smile all day just thinking of how cute

those tiny babies look inside a cabbage or watermelon or tucked amid all those roses, thorns removed of course. The colors are intense and so alive that one can almost smell the roses. And those sweet babies look cozy all snuggled up and well, for those of you that have seen them, you know what I mean.

Ansel Adams is, however, my favorite photographer. He had an eye for details and took photographs, black and white photographs, of some of the most beautiful places in the world. His black and white photographs are so dramatic they take my breath away. The textures are so intense, so rich, color is not necessary. His photographs are so awesome that one can immerse their senses into the landscapes and forget that it ever had color. I purchased Ansel *Adams Images of American West*, by Richard Wrigley, specifically to use in my classroom. This book is a very small collection of some of his magnificent photographs taken in California, Arizona, New Mexico, Wyoming, Montana, Utah, and Colorado. His photograph of a Saguaros cactus on page 24 make the cactus look as though is has been hand stitched. Magnificent details one might not see when looking at the same cactus in color. All the originals of the photos in this book are in the National Archives. When I look at his photographs, I see the inner beauty of nature, the parts that colors sometime cover up. Perhaps one day my students will able to see that as well. It depends on how well I can teach them the value of looking at photographs in a new different way. I can only hope they will be able to see at least a part of what I see in these magnificent photographs.

Visual Literacy

Young people learn more than half of what they know from visual information (Lightfoot). Everyone is saturated with visual images. As veteran teachers, we can readily validate this statement. Children and adults today absorb the majority of their information with their sense of vision. Children need to discover the hidden potential and possible dangers of photography and how dramatically photography influences their lives. Although they may not realize it, they are bombarded daily with photographs, from the advertisement on television to the billboards along the freeways. Once they learn how to analyze the message from various photographs, they will then be on the way to building their visual literacy. Regardless of the source of the visual resource, whether it is TV, movies, billboards, books, or magazines, schools must teach students how to look for and understand the deeper levels of meaning and how images can sway them (Lightfoot). Tactics, yes tactics. We are talking about the look and feel of what we see as well as the manipulation of video and photographs that distort the truth, visual persuasion. We are also talking about how visual resources can influence our decisions to purchase or not purchase an item. In some cases these visual images are used for propaganda, fraud, profit, or to rewrite history. It is done every day in sometimes subtle and other times not so subtle ways. Music videos interpret a song, limiting and directing the response of the audience. Critics tell us what movies are the "best or worst." We no longer make that decision ourselves. Of course we can ignore the critics and make choose for ourselves, but do we? Is freedom of choice a thing of the past? Will our students grow so complacent that they do not want to make their own choices? If we can teach our students how their thoughts are being manipulated, perhaps they will learn how to avoid some of the pitfalls of visual manipulation.

Young people need to learn that they have a choice and that their choices need not be dictated by someone else. It will be a difficult concept to teach, but with patience and tenacity it can be done. Exposing the propaganda of media clutter and how it effects their decisions may be a tough job, but in the long run it may help them engage their own decision making processes and perhaps even restore some of their individuality and ability to use their imagination.

Visual Skills

What makes the look and feel of visual resources? The areas include color, proportions, form, shape, texture, emotion, feeling, typography, design, and composition. Changing the font of a word or title can change the entire visual stimuli. Take the word "danger." In Times New

Roman font it is just "danger." When you capitalize it, DANGER, or make it bold, **DANGER,** or bold, italicized, and underlined, ***DANGER,*** you get a different perspective all together. Try other fonts, enlarge it and

Wow, what a difference.

If you change the color, well, you see where this is leading. Using modern computer programs, you can change the mood of the visual stimuli just like the professionals. You can find even more font examples at http://www.pcfonts.com/.

Once students have mastered visual skills, they can use appropriate learning tools, digital cameras and computers, and create their own visual message. These are completely different areas of competency, and although they can be used to create one visual resource, the competency in one does not necessarily transfer to the other. The digital camera is one technology tool that can make a significant contribution to visual literacy. Photographs from any camera not only capture an image but also express feelings, textures, hues, and shapes. Digital cameras may be more practical, as the students can see the result of their work in an instant and can learn much faster than waiting for film to be developed. Digital cameras can be downloaded into a computer and "developed" into PowerPoint presentations, digital books, and email attachments, even printed out the same day, thereby assisting with the visual literacy. We can use digital cameras to capture a wide scope of emotions, record weather changes, sequence events and capture people for yearbooks, link writing with visual images, photograph nature, record of special events, document the steps during science experiments, compile a portfolio of a person's accomplishments, and provide opportunities for students to develop a love for picture taking that could lead to a career in photography. Did I say, "love for picture taking"? Yes, it could happen, even at second grade. Digital cameras can also be used with other media such as drawings, models, video and animations. The kinesthetic learner may benefit from greater use of video. Visit http://members.ozemail.com.au/~cumulus/digvidor.htm for more information (Lightfoot). It appears there are hundreds of ways to use digital cameras in the classroom. Any project that you would normally use photographs or visual aids can be integrated into other applications, such as word processing, drawing, or web pages, and can enhance both student and teacher made materials. Let your imagination and your students' imagination discover the seemingly limitless uses.

Learning to use a digital camera or any camera is relatively easy; look at the picture on the back of the camera and push a button. I began taking pictures when I was in the first or second grade using a Kodak box camera, and today's digital cameras are so much easier to use. Digital cameras have removed the suspense because you can see if the shot is good, if your subject still has a head. As soon as you take the picture, it appears on the tiny screen for the photographer to preview. No longer do we have to wait for the film to be developed and then realize that our hands were not steady, or that the subject had moved, or in a lot of cases that we did need a flash. The digital cameras let us know immediately, and we can retake the shot or delete it and have that space for another one. The more bells and whistles the cameras has, the more possibilities of getting a good picture, maybe even an excellent photograph.

After teaching my students how to use a camera – how to capture the world from their point of view – they will be encouraged to take photographs and compile them into a digital book of their own design, complete with captions. They will also be encouraged to complete their first

family album and become the keeper of their family tree. Preserving their photographs could be the path that future generations in their family use to trace their heritage and keep their culture alive. If not, at the least, it chronicles events in their life during the school year.

Lesson Plan Preview

Our school has a wonderful outdoor learning center that includes a native Texas habitat complete with a pond. We also have flower beds, fruit trees, and a vegetable garden. Although our students are encouraged to investigate the plants and animals in this area, they are not given the opportunity to actually do a lot of collaborative or individual investigations. Time is just too limited. Some can identify most of the plants and animals, but most can only identify one or two of the plants and perhaps one butterfly, the Monarch. With guidance they have been able to learn when to plant, when to harvest, and what flowers to plant to attract and feed butterflies and hummingbirds. However, most of the instructions are from the point of view of the teacher not the student. This unit will make the change from teacher driven to student driven. My students will photograph all the plants and animals in their outdoor learning center and publish a field guide that can be used to identify the plants and animals in the learning center. Hard copies as well as digital books will be available for students and teachers to use when they are having classes in the learning center. They will leave their legacy with the school for future generations to use as a learning tool. As they are photographing the plants and animals, they will be learning and therefore able to teach others about the plants and animals not only in our learning center but any place they happen to see the plants and animals.

Young children have the ability to express their complex emotion lives visually (Ewald and Lightfoot). However, once students begin to write those visual skills take a back seat. Writing is stressed so much because standardized testing begins in third grade, and their visual skills are suppressed. As a former first grade teacher, I know that beginning writers need those visual skills in order to completely convey the meaning of their story. By second grade those visual skills are being suppressed, and writing skills take on a new importance. It is forgotten that there is a need for visual stimulus to help us express our feelings. Perhaps by using their own photography, they can reconnect the link between writing skills and visual literacy that was used in first grade.

You may want to introduce the vocabulary for the lessons as you go or have it ready as a study sheet before you begin. I have a list of vocabulary words that I will be using and plan on having the pages ready, so my students can write the meaning of each as they are introduced. My list includes the following:

1. Concave lens: a lens that bends light so that the beans of light travel away from each other.
2. Contrast: the difference between dark and light areas, how many gray tones there are.
3. Convex lens: a lens that bends light so that the beams of light meet at a point.
4. Crop: to block out parts of an image that you don't want to print.
5. Depth of field: the distance between the nearest point that is in focus and the farthest point that is also in focus.
6. Develop: use chemicals to see an image on photographic paper or film.
7. Expose: to allow light to fall on photographic film or paper.
8. Field of view: how much you can see when you look through a camera.
9. Flash: device that produces a burst of light to make dark scenes brighter.
10. Focus: to move a lens so that the image is clear and sharp.
11. Image: a picture of something.
12. Lens: a specially made piece of glass used to bend light.
13. Negative: an image in which light and dark areas are reversed.

14. Overexposed: reached by too much light.
15. Print: record an image on photographic paper.
16. Telephoto lens: lens that makes objects seem much nearer than they really are.
17. Time-lapse photography: photographs taken a different times and put together to make a film or record an event that takes place over hours or even day but that can be viewed in just a few second (Senior 46-47).
18. Tripod: device used to support and hold a camera steady.

You may find that you do not cover all this or may want to add more. Usually when you begin teaching a unit, the vocabulary list changes according to the prior knowledge of the grade level you are teaching. This list is just the basics to start with.

LESSON PLANS

Lesson One: Visual Literacy

As we begin this session, it will be necessary to determine the student's level of visual literacy. To do this, students need to be aware of the different type of photographs, their intent use, and how these photographs may influence their decisions.

Material

A variety of different types of photographs from newspapers, books, and magazines. *Ansel Adams, Images of the American West*, by Richard Wrigley, will be my primary resource for black and white photographs.

Objective

To determine the student's level of visual literacy and allow them the time to express their reactions to photographs at different levels.

Activities

I will show the students photographs of familiar objects and have them record their reactions. We will gather photographs from various newspapers and magazines and via class discussions try to discover what they like or don't like about the photographs and how the photographs might influence their outlook on the subject. Once we have established that their opinion counts we will then view professional photographs and critique their works. Ansel Adams will be one photographer that we will study. I want my students to be aware that photographs need not be in color and that perhaps we do not need color in some photographs to enhance their beauty. I am intrigued with Ansel Adams' photographs, and it will be interesting to see what my students think of his work.

We will also take a look at some very colorful photographs and discuss the different reactions to each.

This activity will be used primarily to allow students to view and critique photographs without putting any pressure on their opinions. It will be non-graded except for class participation and will help justify the fact that even though their opinions may differ, there is not a right or wrong answer, just a difference of opinion.

Lesson Two: Being Photographer and How It Began

Before students are allowed to use a camera, they need to learn the history of photography and how cameras work. This lesson will cover those areas in as much detail as is necessary for the grade level being targeted.

Materials

Most of the materials will be listed with each activity. You will need all kinds of cameras that you can find so you can show the progression from film cameras to digital cameras. One lesson deals with how cameras work, so make sure at least one camera can be opened up to show how the shutter opens and closes when the pictures is taken. I plan on using *Make It Work! Photography. The Hands on Approach to Science,* written by Kathy Senior as the test for some of the lessons. The activities in this book cover enough of the aspects of how a camera works to make it a very valuable resource. It also gives complete directions for constructing a camera obscura, a pinhole camera, and a tri-pod. The glossary contains most of the vocabulary that we will be using.

Objectives

The students will learn how a camera obscura works and how to build a pinhole camera and will be introduced to the appropriate vocabulary.

Activity 1: Class Discussion: What is a photographer?

- What does a photographer do?
- How do Cameras work?

After the class discussion to answer any questions my students may have and to find out how much they already know about photographers and photography and the workings of cameras we will begin our first activity.

Activity 2: Close Examination of a Camera

Using every kind of camera you can find, allow the students to look at them. Ask that they not touch the lens or any moving part.

If you have thin cotton gloves for your students, they will help protect the lens. Explain that these are working cameras and not toys. This is not play time and will not be treated as such. I always explain the difference between tools and toys, and my students understand the difference all to well. Tools are used to learn; toys are used at home during their play time. Answer any questions the students may have and give them time to explore.

Activity 3: Using different strength of lights, flashlights to high powered bulbs in lambs, explore how lighting a shot changes the shadow patterns and how objects appear very different. This would be a good time to show how lighting affects the mood of black and white photos. Many excellent photos are available and a little searching will reveal just the ones you need for your particular class. I have one digital camera that has a black and white mode, and I plan on using this camera to show how lighting can change the entire picture.

Lesson Three: The Camera and How to Use It

It is important to teach children how to use a camera even if they have taken pictures before. Taking photographs is a lot different than taking pictures.

Materials

Cameras and computer

Objectives

The students will learn the parts of a camera and how to use a camera. They will also learn how to critique their photos as well as those of other students.

Activities

Students will learn the parts of a camera, how they work, how to hold a camera, how to find the subject they want to photograph, and how to push the shutter button without moving the camera. For those that have never used a camera before it is necessary to demonstrate how a camera is

held as well as how to push the buttons. Students that have taken pictures before and demonstrate they know the proper techniques will tutor other students. At this point I will introduce the vocabulary following vocabulary: animate, ASA, concave lens, contact prints, contrast, convex lens, crop, depth of field, develop, dilute, energy, expose, field of vision, flash, focus, gel, image, inverted, lens, negative, opaque, overexposed, positive, print, reflect, refract, telephoto lens, time-lapse photography, transparency film, transparent, underexposed, wide-angle lens (Senior).

We will be using digital cameras from the beginning as it will be easier for the students to capture the pictures they want. They won't have to wait for their pictures to be developed as I did when I began taking pictures just find out that their subject had lost his or her head or that the pig was moving too fast and looked like a weird blob. We will begin by taking pictures of each other, first in the classroom and later in the outdoor classroom. They will be able to see just what effect the flash has on their subject and why they do not need a flash or in some cases why a flash is needed to fill in dark areas. The students will also learn how to focus, use a zoom when they want a closer view, and what effect the different light has on colors. We will critique these photographs projected from the computer through the TV screen or projector. The individual students' work will be copied to a CD and not printed.

Lesson Four: Using the Cameras

Materials

Cameras, computers, printers, paper, and pencils

Objectives

Students will take photographs of other students in the class and use those pictures during a writing assignment.

Activities

Students will use the pictures of classmates and write a story about the activities. These narratives will combine both photography skills and visual skills.

Lesson Five: Photographing the Habitat

Materials

Cameras, writing tools, maps of habitat, field guides to Texas Native Plants, and field guides to flowering plants and garden plants.

Objectives

1. Photograph the plants and animals in the school habitat and write a brief description of each.
2. Compile a school field guide for students and teachers to use when studying in the outdoor classroom.

Activities

Students will take photos of each plant and animal in the habitat, write a short description of that plant or animal, and add a notation to the photograph number for that plant or animal. They will use the map to coordinate the photograph number to the plant's location. Once the photographs are transferred to the computer, the students will use field guides to help write a description of each plant and animal and then transfer their photograph to the description page. When all the plant and animal descriptions have been written and located on the map, they will be compiled into a digital book for students and a printed copy for teachers. This is a rather large undertaking for second grade students to complete, so fourth and fifth grade students will be recruited to help with the final digital book.

CONCLUSION

Additional lessons could include an introduction to the video camera, using the digital camera on the microscope, macro and micro photography, slide presentations, how to take photographs in limited light, caption writing that make the pictures come alive, or in the case of the plant and animal identification photos captions that give information about the plants and animals that students can use during their interaction in the outdoor learning center.

In this curriculum unit I am preparing second graders to take awesome photographs and to use those photographs to compile a digital book. Once we have completed the introduction phase, my instructions to my students will be to compile a field guide that other students can use successfully. They will be using my personal cameras with their personal eyes to take what they feel would be the perfect photo for their digital field guide. Children have a different perspective on nature, and I am anxious to see what they feel will be beneficial to other students, to see what they look for when they are in the habitat, and to see what they will be looking for when identifying the plants and animals in our habitat. When this unit is completed and we complete the bridge in the habitat, all my HTI units will be inter-connected. I will be able to use them as a thematic unit to teach across the curriculum.

Photography through the eyes of children.
Capturing what they see at their level.
Who knows, this might just inspire the future world's greatest photographer.
Smile, the camera is waiting. Click, click, click...

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