

Nature Photography

Ages: Grades 7+

Time: 1 hour

No. of participants: 5-10

No. of additional adults: 1 if available

Required supplies:

- Digital cameras (minimum 1 camera/2 students)

**When announcing this activity - be sure to ask students who have a digital camera to bring it along.*

Objective: To learn about basic digital camera functions and principals of quality photography. To photograph scenes found in nature.

Lesson Plan Procedures

1. Introduction:

- To get a handle on the experience of the group as some questions like:
 - How many of you have taken pictures with a digital camera before?
 - Did anyone bring their own camera today?
 - What type of experience do you have with photography? Etc.

2. Beginning Instructions:

- Today you are going to get a chance to learn about digital photography by taking pictures that capture the beauty of nature around us.
- We are going to begin by going through some of the basic functions of digital cameras - *make sure each student or at least pairs of students have a camera at this point.*
- Go over the universal, basic functions at this point. As you go over each function, allow time for the students to try it out - while they are doing this, walk around and make sure each student understands. Functions to over include, but are not limited to:
 - Turning on and off**
 - Shooting modes - automatic vs. specialized**
 - Zooming and focusing**
 - Flash options**
 - Macro mode**
 - Playback and deleting**
 - Menu functions**
- Go over some basic photography vocabulary. *You may choose to skip some of this depending on the group's experience and time.*
 - Lens** - telephoto, macro, etc.
 - Shutter and shutter speed** (TV-time value) - higher the speed the more "frozen" the subject will look.
 - Aperture Value (AV)** - larger aperture (lower f-stop) = blurrier background, shorter depth of field. Smaller aperture (higher f-stop) = clearer focus on all objects, larger depth of field.
 - ISO Speed** - sensitivity to light. Higher the number, higher the sensitivity. Low numbers will produce a finer image, but will not capture moving or low

light subjects well. High numbers work best for capturing moving and low light subjects, but produce a grainier image.

- v. **Exposure** - over exposure means the picture is too bright (washed out). Under exposure means that the picture is too dark.

3. *Main Lesson:*

- a. Now you know how to use the cameras to take a picture; next I am going to teach you what you need to know in order to take beautiful, artistic photographs...
- b. **Lighting**
 - i. The best times of day for outdoor photography are early morning and later evening when the sun is low in the sky. During the day the best lighting is actually filtered sun or light on a cloudy day.
 - 1. You don't want to take pictures of your subject directly in bright light if possible; it will be washed out and/or shadowy.
 - 2. You also don't want your subject to be heavily shadowed.
 - ii. Adjust yourself to get the best light - sometimes that means waiting until another time of day.
 - iii. You may have to use your flash even when it's not dark if there are a lot of shadows on your subject.
 - iv. Otherwise, it is always better to use natural light if possible (no flash), especially with nature photography because the subject will look much more *natural!*
 - 1. When you don't use a flash, your camera shutter stays open longer to allow more natural light to enter. This means that you have to stay very steady or your picture will be blurry.
 - 2. Although we will not have time to use tri-pods today, sometimes you have to use them in low light to avoid using your flash or the picture will get blurry.
- c. **Composition**
 - i. Horizontal vs. vertical shooting
 - ii. Make your subject take up as much of the frame as possible. Do not leave extra, empty space around the edges. Get as close as you can without cutting it off.
 - iii. Make your picture more interesting by taking it from an angle that puts something in the foreground.
 - iv. Be sure your background is not distracting and that it shows off your subject.
 - v. Perfection of thirds - imagine your photo being divided into thirds. Experiment by moving your subject to one of the sides for a more interesting shot.
 - vi. Angles - try different angles, be creative - you never know which angle might turn produce the best picture until you try!
 - vii. Focus - be sure you are focusing on what you want to focus on, it's okay if not everything in your picture is in focus as long as your subject is!
- d. You are all now more than people with cameras - you are photographers! 😊
- e. Let's go outside! You will have the next _____ minutes to shoot some nature photography. Please stay within _____ area and always stay in sight of at least one other student. I'll be around to check on how you are doing. When you hear this sound _____ return here.
- f. Okay - go ahead, photographers... and have fun!

4. *Conclusion:*

DCNIC Nature Activity Lesson

- a. *Before the activity, determine what you'd like to do with their photography and explain this at this point... Some ideas: Make a disc with all of the group's pictures on it to be shown later or be given to each of the students, allow them to select one or more of their favorite pictures to be printed, show all of the pictures via the computer/TV in the nature center, etc.*