

## Working with Digital Images: Photography Basics

Digital cameras are an asset to any school. However it can be frustrating when you think you took the perfect picture only to have the image appear too dark or washed-out when you open it on a computer. The first step in combating these frustrations is to make sure you take the best possible photograph. This may sound easy enough, but in dynamic school environments, it is nearly impossible to account for all the variables which make up a photograph. If you're still not happy with your image, adjustments can be made using a myriad of image editing software. In this exercise **IrFanView** will be used to edit images, but the same principles can be applied using any software. We suggest **IrFanView** because it is free.

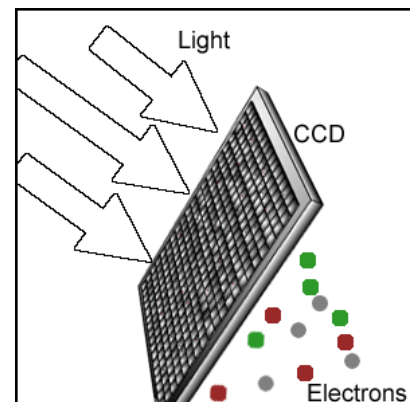
**Objectives:** Review photography basics

### Photography Basics

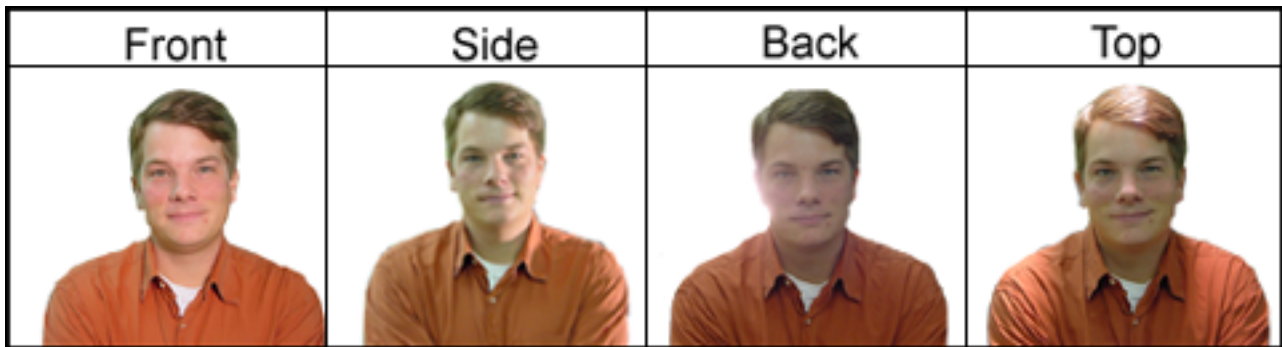
There are many thoughts about how to take the “perfect” picture. This document provides information about how to take a good picture under most universal environments. There are three things to consider when taking a good picture: **Light**, **Content**, and **Background**.

#### Light -

Digital cameras rely upon good lighting more than a traditional camera. This is because a traditional camera's film has millions of light sensitive cells on each frame to record light information. A digital camera has a finite number of these cells located on its *charge-coupled device* or CCD, and it has to reuse them with every image. Therefore a digital camera needs more light to be able to record good images.



But more light doesn't always fix the problem. The **direction** of the light is just as important. There are 4 general lighting conditions: **Front, Side, Back, and Top**. As a general rule, a combination of Front and Side lighting will produce the best results. Front lighting may wash out your subject while Back lighting will make the subject too dark. Top lighting will cast shadows across an individual's face obscuring their eyes.



### Activity One:

Here is an exercise to become familiar with the digital camera and to demonstrate how light affects images. This exercise will require students to pair off to take pictures of each other. Sure both cameras have the following settings.

Reference information on how to adjust your camera settings maybe found at the CREATE Web Site under the how-to section.

1) Camera Settings:

- Camera Mode: Still
- Image Size: 1024 x 768
- White Balance: Auto
- Flash Level: Normal
- Exposure: 0
- Flash Button/Icon: Automatic Flash \*\* No Icon
- Focus Button/Icon: 1 meter

## Taking the Digital Images

1. With a partner, go to the lighting stages.

*We will use Clamp Lamps as our lighting source for this exercise. The CREATE staff members are available to hold the lamps for you.*



2. Take 5 pictures of your partner.

For the first image, do not use any extra light source. The next 4 images should demonstrate the 4 common lighting conditions. Please check off each picture as you take it.

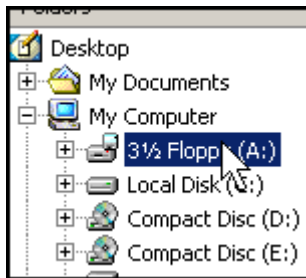
<input type="checkbox"/>	No Light	Tip: Fluorescent lights will make your images look green
<input type="checkbox"/>	Front	Tip: Ask the subject to turn his/her head slightly to create shadows and depth.
<input type="checkbox"/>	Side	
<input type="checkbox"/>	Back	
<input type="checkbox"/>	Top	Tip: Ask the subject to tilt his/her chin up to reduce the circles under their eyes.

3. After each of you has taken the pictures of your partner, return to your computer.

4. Insert the floppy disk into the Floppy Drive (A:).

### Create a folder on the Desktop to put your images

1. Launch your Windows Explorer by holding down the **WINDOWS KEY** + press the “E” Key or Select **START > PROGRAMS > ACCESSORIES > WINDOWS EXPLORER**.



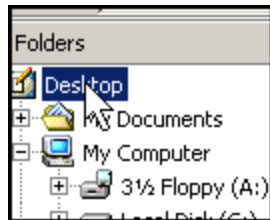
2. Select your **Floppy Drive (A:)**

3. Sort your files according to **TYPE** by clicking on the **TYPE** column header.

Name	Size	Type
MVC-019F.411	5 KB	411 File
MVC-020F.411	5 KB	411 File
MVC-021F.411	5 KB	411 File
MVC-022F.411	5 KB	411 File
MVC-023F.411	5 KB	411 File
MVC-024F.411	5 KB	411 File
MAVICA.HTM	8 KB	HTML Document
MVC-019F.JPG	128 KB	JPEG Image
MVC-020F.JPG	127 KB	JPEG Image
MVC-021F.JPG	126 KB	JPEG Image
MVC-022F.JPG	126 KB	JPEG Image
MVC-023F.JPG	126 KB	JPEG Image
MVC-024F.JPG	126 KB	JPEG Image

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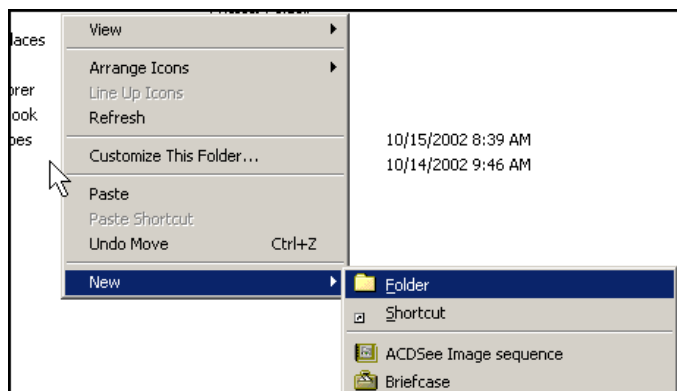
4. Select the images of your partner by either holding down the **SHIFT** key while clicking on the **first image** and then the **last image** or hold down the **CTRL** key and click on each file name.



5. Copy the files then click on the **DESKTOP** icon on the left side of your Windows Explorer window.

To Create a **New Folder** on your **Desktop**:

6. **Right Click** in the white space of the **Desktop**.



7. Select **New > Folder**

8. Name the folder **LastName\_FirstName\_Digital\_Images**.
9. **Double click** on the folder to open the folder and **Paste** the images into your new folder.

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