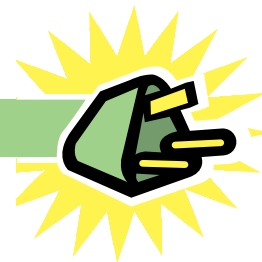


# Decoding Technology

## Choosing a Digital Camera

by Tim Walker and Chip Donohue



The popularity of digital cameras for use in early childhood settings is growing. However, administrators are finding it increasingly difficult to sort through all of the options that are out there. The challenge is selecting the right one to fit all of your program's needs without going over budget. A helpful first step is to become familiar with the basics.

### Tech Terms

■ **Pixel:** Short for picture element. Digital photos are made up of hundreds of thousands or sometimes millions of these tiny squares. The more you zoom in on a digital photo, the more blurred it will appear; and eventually you'll start to see these pixels. This process is called pixelization. A megapixel is the equivalent of one million pixels.

■ **Resolution:** Determines the quality of a digital photo, whether it is printed or displayed on screen. To find the resolution of a photo, you multiply the number of pixels horizontally across by the number of pixels vertically down.

■ **Color Depth:** Determines the number of colors in a digital photo. In addition to resolution, it is an equally important factor contributing to quality. 24-bit (or 16 million colors) is sometimes referred to a "true color" because it is close to what the human eye can see.

■ **LCD Screen:** A display on a digital camera that allows you to preview photos immediately after taking them. LCD screens can be fixed on the back of a camera or at what is referred to as a vari-angle, which enables it to swivel

and rotate. Most screens also have a data view which makes it possible for you to see the camera's settings while reviewing photos.

■ **Optical Zoom:** Uses the optics or lens of a digital camera to bring the subject closer. Optical zoom is considered more useful than digital zoom because it does not sacrifice quality.

■ **Digital Zoom:** Enlarges a portion of a digital photo similar to cropping but at the expense of clarity and detail. Digital zoom will not kick in until the optical zoom range has been maximized and on most cameras you can turn this feature off.

■ **Flash:** A permanent reusable light source built into a digital camera that emits a short burst of light to illuminate a scene. Most cameras are set to auto flash when there is not enough light. You may be able to set your camera to force a flash at all times, turn off completely, or to flash twice for red-eye reduction.

■ **Shutter Speed:** Controls how sharp a moving object will be captured in a digital photo. A fast shutter speed can freeze a moving object.

■ **Aperture:** Controls how sharp the background will be captured in a digital photo. A large aperture can blur the background.

■ **Rechargeable Batteries:** A power source that can go through a series of charge and discharge cycles. The two most popular types of rechargeable batteries are Nickel-Metal Hydride (NiMH) and Lithium Ion (LiIon). NiMH batteries come in a number of standard models including "AA" size. LiIon last longer than NiMH but are not available in a wide range of models.

■ **Media Card:** A type of removable storage device in digital cameras that can be replaced. Media cards are typically measured in megabytes.



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- **File Compression:** Eliminates duplicate data during the storage process which greatly reduces file size. For example, if you took a photo of a large body of water containing the same shade of blue, only the value for one pixel to match that shade of blue would be saved.

## Tech Tools

Keeping up with the technology that goes into digital photography can be a daunting task even for those who have been using it for years. To complicate matters, the differences between cameras can be slim. Here are few resources that can help:

- Visit the ShortCourses Web site and complete the second lesson titled *A Short Course in Choosing a Digital Camera*.  
[www.shortcourses.com](http://www.shortcourses.com)
- Go to the Digital Camera Reviews and PC Magazine Web sites to find recent reviews on all makes and models of digital cameras.  
[www.dcvIEWS.com](http://www.dcvIEWS.com)  
[www.pcmag.com](http://www.pcmag.com)
- Participate in online discussions with others in the market for a digital camera or seek the advice of professional photographers on the Digital Camera Resource Page Web site.  
[www.dcreSource.com](http://www.dcreSource.com)
- Do a comparison shop for digital cameras on the Best Buy and Circuit City Web sites.  
[www.bestbuy.com](http://www.bestbuy.com)  
[www.circuitcity.com](http://www.circuitcity.com)

## Tech Tips

- **Remember to budget for accessories** — Make sure to include the extra costs for camera accessories. Here are some common ones to consider: carrying case, rechargeable batteries and charger, extra media cards, media

card reader, cables, tripod, photo printer, printer cartridges, and photo quality paper.

- **Check compatibility** — The digital camera you are considering to purchase should meet the specifications of your computer. This includes the software for downloading and editing your photos and the type of connection (Serial, FireWire, or USB). Both must be compatible in order for your computer system and digital camera to sync properly.
- **Try mastering these tasks** — Once you have purchased a digital camera, get comfortable with it. Here are some simple tasks to master: add/replace batteries; turn on/off camera; turn on/off LCD screen; locate menu(s) and select options; set the resolution and quality; turn on/off flash; use zoom control; insert/remove media card; view stored images; delete images; and download images from camera. Use the manual that came with your camera as a reference.

## Tech Links

Here are some Web sites to consider for storing, sharing, and printing your digital photos:

- Kodak EasyShare Gallery  
[www.kodakgallery.com](http://www.kodakgallery.com)
- Photo.net [www.photo.net](http://www.photo.net)
- Shutterfly [www.shutterfly.com](http://www.shutterfly.com)
- Snapfish [www.snapfish.com](http://www.snapfish.com)

## Sources

- ShortCourses [www.shortcourses.com](http://www.shortcourses.com)
- Webopedia [www.webopedia.com](http://www.webopedia.com)

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