4-H Digital Photography Problem Areas

1	resolution problems	a) Not enough pixels/megapixels (photosites) in the digital camera; more pixels = better image. Keep in mind that other factors influence the final printed image quality too.
		b) Digital zoom was used rather than optical zoom. Digital zoom crops the image (& pixel #) thus the remaining pixels get spread out making a poorer image.
		c) Printer quality: droplet size is too large; 3 to 4 picoliters is good, (2 or less is even better but more expensive)
		d) Printer quality: number of dots per square inch (dpi) might be too low.
		e) Scan a small photo with no less than 300 dpi if it will be enlarged to an 8" x 10" size. Scanning with an even higher dpi such as 600 dpi (or greater such as 1440 dpi) is best for any enlarged image, especially if bigger than 8" x 10".
		f) Interpolation adds pixels for enlarged photos which might lower the resolution; a good scanner can still produce high quality interpolated enlargements, though.
		g) Artifacts are unwanted mistakes or inaccuracies created during resizing after interpolation and remain even when the file size is reduced by decreasing pixels. This is aggravated if the file is sized up again. Artifacts are permanent.
2	exposure problems	ISO-equivalence may need to be adjusted (if the camera allows it) to fit the type of light available at the time of the camera shot.
3	noise in photo	A high ISO-equivalent cause noise (similar to grainy photo in film camera). Try using the lowest ISO and still get a good picture. Then edit with software later if possible.

4	dust particles	Use compressed air, microfiber cleaning cloths made for lenses or anti-static brush to keep the lens clean. Software editing programs can edit out the bits of dust.
5	lost highlights	The scanner's dynamic range can influence the quality of the photograph. Dynamic range refers to the scanner's ability to measure the light to dark range of an image. Low dynamic range means that highlights in an image might get washed out.
6	off-color	White balance: the camera sometimes misinterprets the light condition and turns whites and colors the wrong color. This can happen when there is a strong color in the image, too. If manual white-balance control is available be sure to use the appropriate setting for the light conditions such as fluorescent light, incandescent, sunset, etc.
7	poor color	The bit depth of a scanner determines the color value of each pixel. Most scanners operate at 24-bit. Less than 24 bits causes poorer color and tonal editing of the image from the original.
8	poor contrast	Histograms in either the camera or an image editing software program will show how weak the blacks and whites are. Use this before taking a picture of the subject for better accuracy or use the software to make adjustments after the image has been down loaded into the computer.