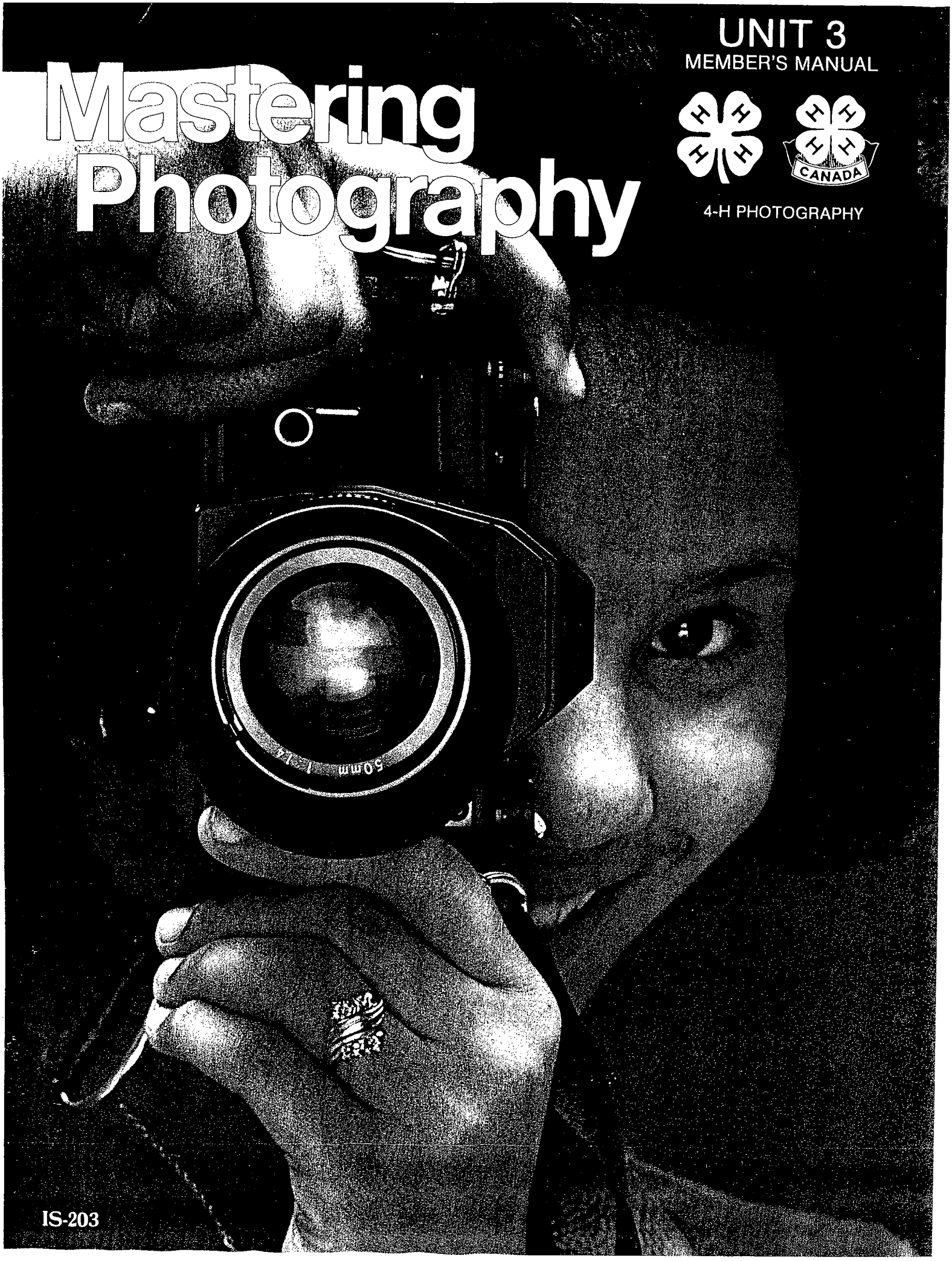
Mastering Photography

UNIT 3
MEMBER'S MANUAL

4-H PHOTOGRAPHY



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The 4-H Photography Program

The 4-H photography program centers around five manuals. Three manuals take you from beginning photography to intermediate photography to advanced photography. A fourth manual leads you into the darkroom where you learn how to process and print your own film. And a fifth manual introduces you to moviemaking. For your special interests, there are several four-page skill sheets. The skill sheets examine topics like news photography and careers in photography. Here's a list of all the 4-H photography publications.

Unit 1: *Adventures with Your Camera*
(for the beginning photographer)

Unit 2: *Exploring Photography*
(for the intermediate photographer)

Unit 3: *Mastering Photography*
(for the advanced photographer)

Darkroom Techniques
(for the person who wants to process and print his own film)

Exploring Moviemaking
(for the person who wants to make movies)

Advanced Skill Sheets
(self-determined projects)

Awards Available in 4-H Photography

County:
Four gold medals of honor in photography

State:
An expense-paid trip to National 4-H Congress

National:
Six educational scholarships of $1000 each. In addition, a scholar incentive grant of $500 is given to those national winners whose grades ran in the upper half of their class during the semester they use the $1000 scholarship.

This manual is published by National 4-H Council, 7100 Connecticut Avenue, Washington, D.C. 20015, with the cooperation of Eastman Kodak Company, in behalf of SEA-Extension, United States Department of Agriculture and the Cooperative Extension Service of the State Land-Grant Universities.

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SLIDE SHOWS

A "light box" or slide illuminator will allow you to view several slides simultaneously, making it easier to edit slides.

A slide show is one of the best ways to display pictures. Not only can you make the pictures very big, but you can show them to many people at the same time. Since the pictures appear one after another, the slide show is a perfect vehicle for a picture story.

Some of the basic ideas that will help you create a successful slide show are:

1. Use only your best pictures. There's no sense apologizing for poorly exposed or unsharp images. They disturb your audience and interrupt the story you're telling.
2. Use only the slides that best tell the story or demonstrate what you're saying. A picture may be worth ten thousand words, but it has to be powerful and concise.
3. There must be a variety of pace. Some slides should be on the screen for a couple of seconds, while others might linger a bit longer. Actually, some subjects will suggest a rapid succession of slide changes, while others will demand a slower projection rate.
4. Pay attention to the visual continuity. Unless the story calls for it, don't have jarring transitions from one slide to the next. It's a good idea to watch color sequence, composition sequence, and even the succession of horizontal and vertical slides. Too many dramatic changes confuse the audience and distract them from the thread of your idea.
5. Make sure you have an extra projector lamp and know how to make a change when the old lamp is hot.

So far, we've assumed that you're putting a story together with pictures you have already taken. There's also the possibility that you might want to create a story about something that's going to happen. This means that you get the chance to organize the slide show exactly as you want. Find out all you can about the event—it might be something in school, 4-H, or in your community. Get a timetable of what's going to happen and inspect the locations. Decide what you're going to photograph and make all the preparations with your camera equipment, film, flash, and so forth. Then organize the pictures you think you're going to take. One easy way is to make up a 3 x 5-inch index card for each picture. On the card sketch a simple drawing of the shot as you see it. Include the location, the people, the other subjects, the action, and any other important information. When the hour comes to take the pictures, you'll be ready to shoot—at the right time and in the right place. Be ready for the pictures you don't expect as well. Sometimes things happen that make good pictures that weren't in the original script. Take more pictures than you think you'll need. Then you'll have a selection of good ones to choose from when you put the show together.

When you get your slides back from the photofinisher, choose the best ones, and only the ones you need to tell the story. Then put them in order—not only the chronological order of presentation but also in an order that's visually attractive and sensible.

You probably will have something to say about the pictures—a narration to deliver live or on tape. Editing is important here, too. Allow the pictures to be the framework for the story. Pretend that the narration serves as captions for the slides, giving only what information is necessary. Be brief. Choose your words carefully for impact and a pleasing sound. Don't let the narration hold slides on the screen too long—your audience will get bored. Remember that they're used to the fast pace of movies and TV.

Here are some optional ideas that can make a good show even more exciting. You might call them part of showmanship.

SPECIAL EFFECTS

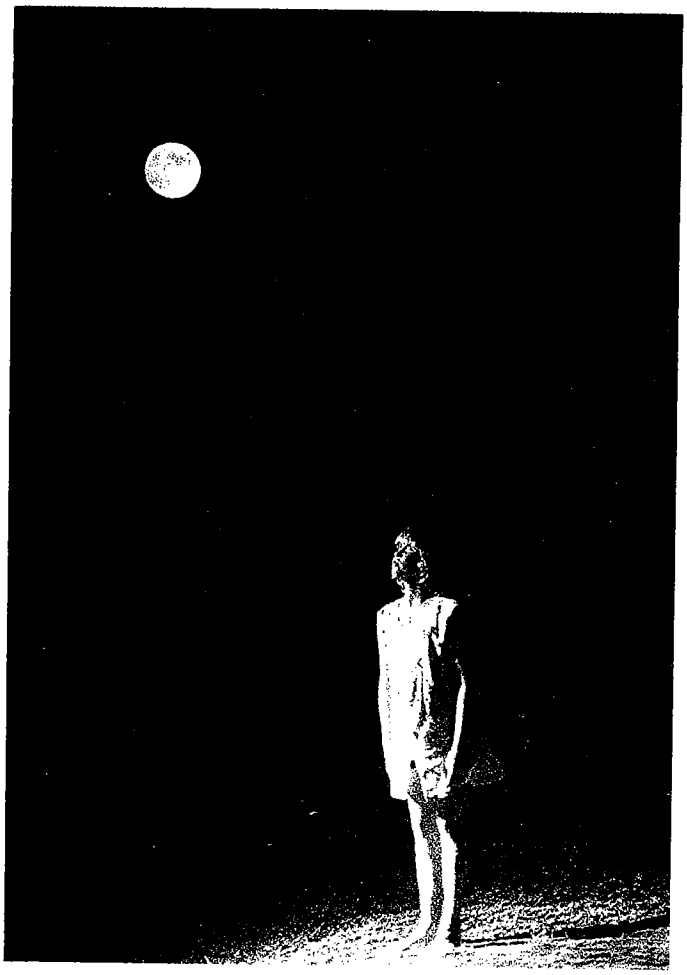
Special effects create unusual looking pictures. Special effects may be as easy as screwing on a certain filter or they may require some experimentation on your part.

Special effects can be your magician's hat. You might be able to pull out a picture of a UFO, creatures ringed in light, or a tree that seems to be exploding. Experiment with different special effects, but don't let them override your good judgment. Fine pictures depend on the subject, composition, lighting, and exposure.

Converging lines are the trademark of a zoom shot. They add a feeling of motion to an unmoving subject.

Zooming

The technique of zooming creates photos that seem to explode with light and color. The technique is easy and works best with a single subject and a simple background. You need a zoom lens and a slow speed film. You might also want to try a tripod for extra long shutter speeds. With the zoom lens attached, select a shutter speed of 1/8 second or slower. Focus on a single subject, preferably unmoving, and set the zoom to either extreme. As you press the shutter release move the zoom control through the whole range of focal lengths. Try different shutter speeds and subjects—you can even try zooming and panning at the same time.



Double exposure photograph by 4-H'er Renee McCabe, Winnsboro, South Carolina.

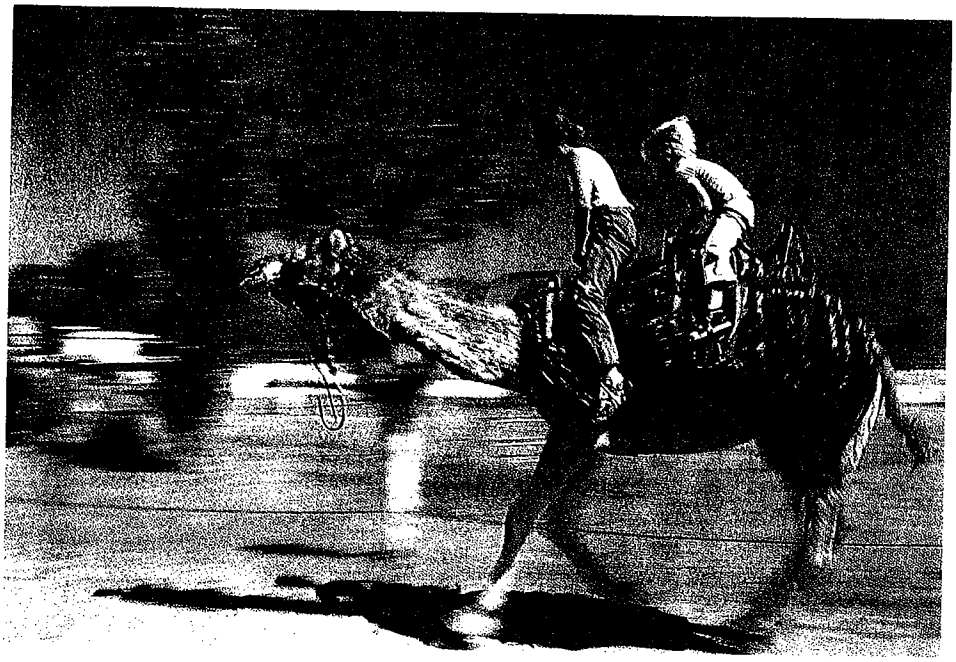
Double Exposure

Double exposure allows you to superimpose images on the same frame of film. You can place a face inside a daisy. You can float a castle in the sky. You can put a moon in a moonless scenic. Some cameras have a double exposure button that when pushed in allows you to cock the shutter without advancing the film. Check your camera manual to see if your camera has such a button.

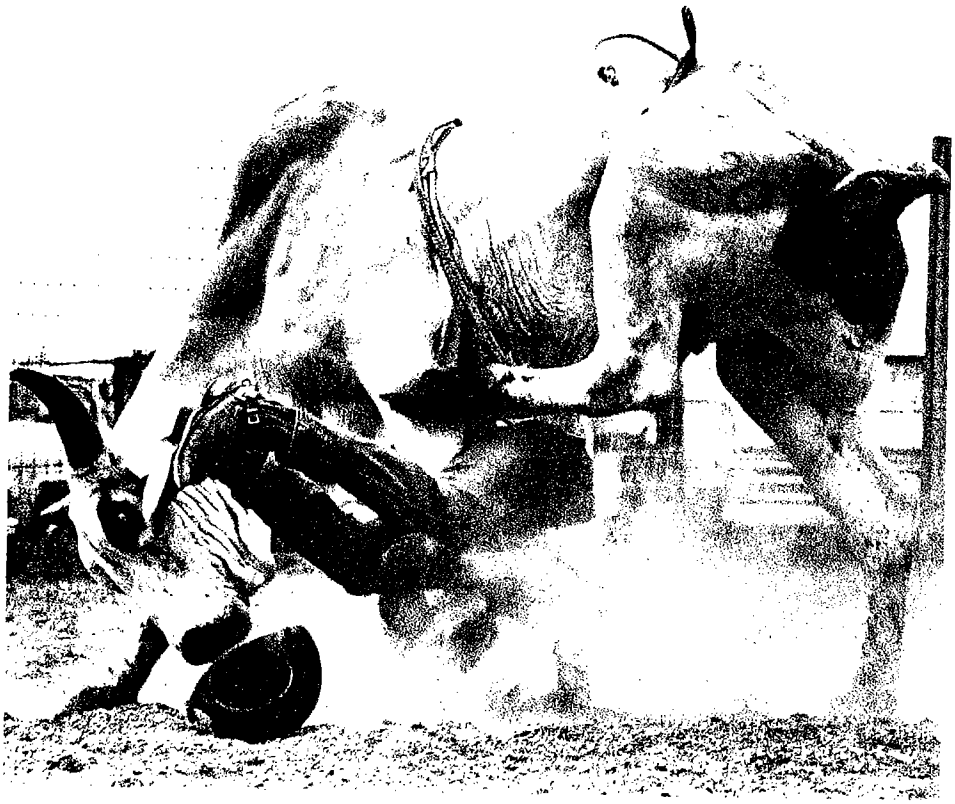
If your 35 mm camera doesn't have a double-exposure button, try this after your first exposure:

1. Hold in the rewind button on the bottom of the camera.
2. Hold the rewind knob immobile.
3. Cock the film advance lever. Be careful not to force it if it doesn't seem to work.
4. You're ready for the second exposure.

Underexpose both the first and second exposure by one stop. Together they'll add up to the correct exposure.



The streaks of background blur that come from panning instill this photo with motion.



A timely low-angle shot with a telephoto lens carries the bone-crunching terror that awaits any slip by a bronc buster. The same shot taken from a higher angle would have lessened and, perhaps hidden, the danger slashing over the cowboy.

Shutter Speed Selection

Use the highest shutter speed possible for fast-moving subjects crossing in front of you. For subjects moving directly towards or away from you, slower shutter speeds of 1/125 or 1/60 second will stop the action. Whenever you definitely want to stop the action use the fastest shutter speed possible.

Try some panning shots to heighten the sense of motion. Do you recall panning from Unit 2? It's when you track a moving subject with your camera and take the picture while moving the camera. Panning will keep the subject fairly sharp and blur the rest of the picture. To pan you'll need a fairly slow film, ISO(ASA) 64 or lower, that'll permit the slower shutter speeds. Typical shutter speeds for panning range from 1/15 to 1/125 second. Start out with a shutter speed number that's about the estimated speed of the subject. Example: For a motorcycle traveling at 30 mph, start with a shutter speed of 1/30 second. Also try shutter speeds one step faster and one step slower. With panning you never know exactly what the results will look like.

Lenses And Film

When you're on one side of the field, the action might be on the other. That's when a telephoto lens comes in handy. A good telephoto for sports is a 200 mm or 300 mm lens or an 80—200 mm zoom lens. If you don't have a telephoto lens, you can always buy a 2X converter. It will make things twice as large in your pictures. Or you can simply get as close as possible to the action and use a normal lens.

Choose a film on the basis of whether you want stop-action shots or blurred motion shots. For stop-action shots, choose a medium to high speed film. Definitely use a high speed film ISO(ASA) 200 or higher for extremely fast action like car races or for dim-light situations. Many slide films and black-and-white films can be rated at double their

SPORTS

Leaping, sliding, tumbling, pivoting, soaring, skimming. Now it's here, now it's not. Sports mean lightning-quick reflexes. Sports photography means reflexes one step faster than lightning-quick or a sixth sense of where the action will be.

Opportunities for sports pictures abound from professional games to the shirts and skins pick-up basketball game right down the street. Look and you'll find action everywhere from your little brother taking his first cut with a bat to a big leaguer slamming one out of the park. You'll quickly learn that amateur sports often make for better pictures than professional sports. In professional sports, you may find yourself stranded up in the bleachers. Not even a telephoto lens helps much up there. But in amateur sports you can often stake out a spot on the field. Sometimes you'll find yourself an uninvited part of the action as players stampede by. From constant practice professional players have their moves well-ordered and down pat. It's routine with them. Nothing's routine with amateurs. One minute everything's going along quite smoothly and the next it's pell-mell chaotic topsy-turvy what went wrong. When that happens be ready to take some outstanding photos.

The best opportunities for sports photography are right in your neighborhood. Don't overlook them. Action photo by 4-H'er John Jones, Walnut Cove, North Carolina.

An overall shot of the playing field can set the scene.

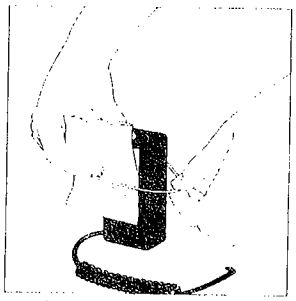
4-H'er Karen Shelby of Ft. Wayne, Indiana, used early morning frontlighting to make this mushroom picture.

Composition

Compose nature close-ups much as you would any other pictures. For flowers, toads, turtles, and the like, use an eye-level or even a low-angle shot. Don't get lazy and take all your pictures from above. A high-angle shot of a toad or a flower usually isn't too appealing.

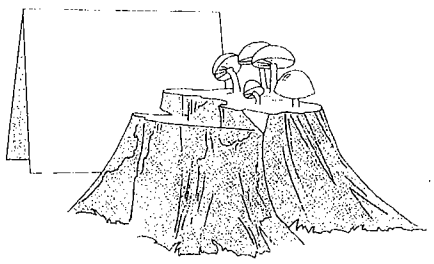
A piece of cardboard, black on one side and white on the other, can be used either as a reflector or a dark background for your subjects.

Don't be afraid to slightly rearrange or clean the scene as you find it. Twigs, dry grass and dead stems often show up as distracting straight lines in a photograph. Look for twigs ahead of time. They're almost always there. A small log or rock might add form to your picture. If it is appropriate to the subject, add it to the scene.



To soften the harsh light of a flash, fasten a few tissues over the flash head and open up an *f*-stop.

With close-up flash, you can use a small aperture to increase depth of field.



A piece of white paper or a white cardboard can be useful as a reflector to add fill-in light or even slight backlighting of nature subjects.

Close-Up Flash

With a small electronic flash, you can stop a butterfly in midair and use the smallest aperture on the lens. Most automatic flashes won't provide correct exposure when used closer than 2 feet to the subject. If you hold your flash closer than 2 feet to the subject, set it on manual or use a manual flash. You might want to set up your flash for close-up photography. Here's how to do some test shots:

1. Fasten 4 lens cleaning tissues around the flash head with a rubber band to reduce the light output.
2. Hold the flash 15 inches from the subject (or any other close distance you think is convenient for your work). Always use it at the test distance.
3. Take flash pictures at *f*/8, *f*/11, and *f*/16. Be sure to record which frame was at which *f*-stop. If you forget, the brightest picture will be at *f*/8 and the darkest at *f*/16.
4. If the pictures are under- or overexposed, remove or add lens tissues or adjust the *f*-stop accordingly. Two lens tissues equal approximately one *f*-stop. In place of lens cleaning tissues you can use a handkerchief. One layer of handkerchief equals roughly one *f*-stop.

Strategy

Wildlife falls under the backyard variety which is semi-tame and the genuinely wild animals of forests and fields which flee at the slightest whiff of humans. The easiest way to photograph backyard animals is to attract them with food. Eventually they'll become used to your presence. With a feeder near a window or a bush behind which you can hide, you'll be able to conveniently take pictures. A telephoto lens will make your images even larger. An electronic flash will provide motion-stopping light night and day should you need it.

Unfortunately, many animals, like foxes and deer, aren't likely to be