

## Taking Shots in Low Light

In this lesson, we'll be taking a look at  
**Taking Shots in Low Light.**

*Estimated Completion Time: 17 minutes.*

## Taking Shots in Low Light

Taking shots in near darkness, without a flash, requires a little bit of knowledge of light, and how your camera works. It also requires some practise, and experience.

There is nothing much we cover here that we have not covered in other lessons - here we just tie it together with specific examples.



*Taking shots like this are actually fairly straightforward, once you know how.*

## Taking Shots in Low Light

This is also one area that can depend on your camera. The better your camera, the better shots you'll be able to take in near darkness. Ideally, a DSLR would be used.



*Inexpensive, or many compact cameras, lack the control that can give you more flexibility when photographing in near darkness.*

## Taking Shots in Low Light

Almost all shots in near darkness require a **tripod**. Make sure you use one! Take it for granted that almost all shots in this lesson were taken on a tripod.



## Taking Shots in Low Light

**The Moon.** Taking shots of the moon at night really only requires some zoom capability on your camera. Not much zoom, and the moon is going to get a little lost in a large frame. But with some cropping, you can still make a good shot.

To fill the frame with the moon is going to require *at least* 12x zoom - or around 500mm for DSLR cameras.



## Taking Shots in Low Light

**The Moon.** The moon is brighter than you think. You can use shutter speeds of 1/100, to 1/500 of a second quite easily, even with low ISO settings.

In fact, a low shutter speed, apart from letting in too much light, will result in a blurry photo - because the moon moves faster than you think.



*ISO 64, 1/400 of a second, focal length of 400mm, F/5.*

## Taking Shots in Low Light

**The Moon.** Pick a cloudless night for best results. We've also found that when the moon is not quite full, as in the photo on the right, you can pick up more detail in the moon surface.



## Taking Shots in Low Light

**Stars.** Photographing stars is totally different to photographing the moon. The stars are not nearly so bright, and so require slower shutter speeds, and higher ISO settings.

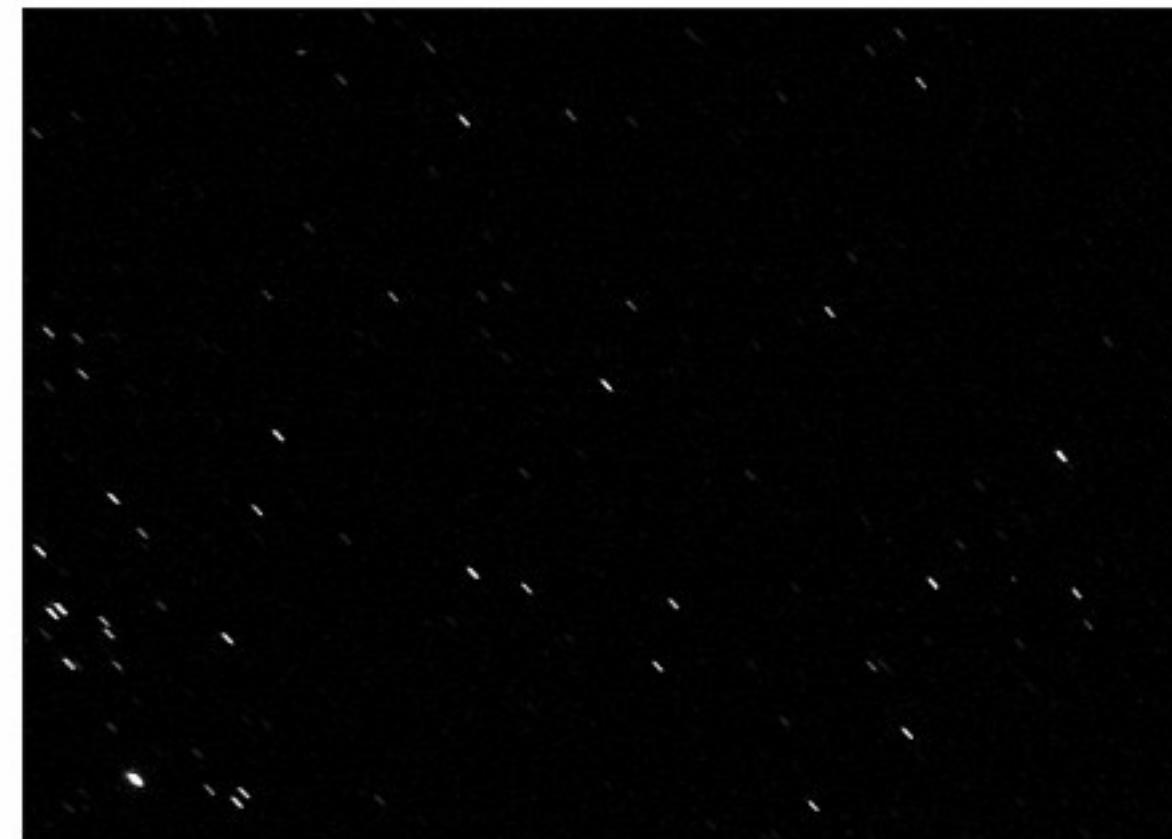


*Here, a setting of 30 seconds (ISO 400), and a tripod, gives us stars and some clouds...*

## Taking Shots in Low Light

**Stars.** Set the ISO to 400, 800 or higher. Take some shots with a few different settings to get different results to compare.

Set the shutter speed to between 15 to 30 seconds. The less you require, the better - because stars, like the moon, will move a noticeable amount in 30 seconds.



*Here, we've expanded a portion of an image to illustrate how much stars will move in 30 seconds - note the small star trails...*

## Taking Shots in Low Light

**Stars.** Another hint with stars - don't zoom in. Set to as wide an angle as possible.



*Here, a shutter speed of 20 seconds, and ISO 800.*

## Taking Shots in Low Light

**Focus.** In low light, it can often be hard to get a focus. Most cameras have a red AF Focus light, which sends out a red light onto the subject when the camera cannot get a focus automatically. Some cameras use the flash to get a focus in low light.

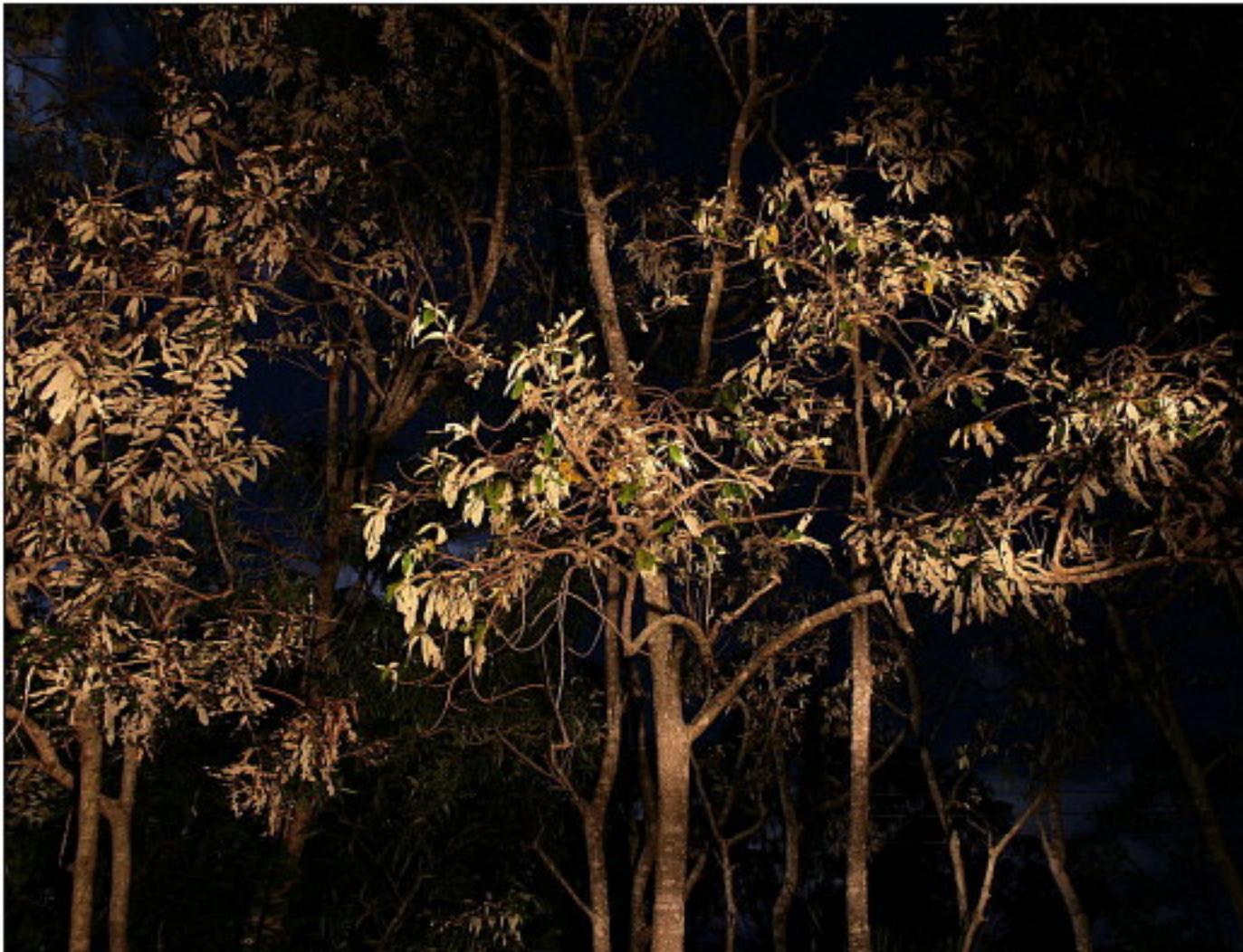
One trick is to use a torch. Illuminate the subject, if it is fairly close (say, a model), and use this to set the focus (more light means an easier focus). Once you have set the focus, you can set the camera to manual focus, if it supports it, and as long as you and the subject do not move, the focus should remain correct.



*For this photo, we used the torch technique to set the focus before we took the shot.*

## Taking Shots in Low Light

**Torch.** Here is another trick to try with a torch. If you set up a long exposure, say 5 seconds or more, use a torch to *paint* the scene, or part of it. You can get some interesting results.

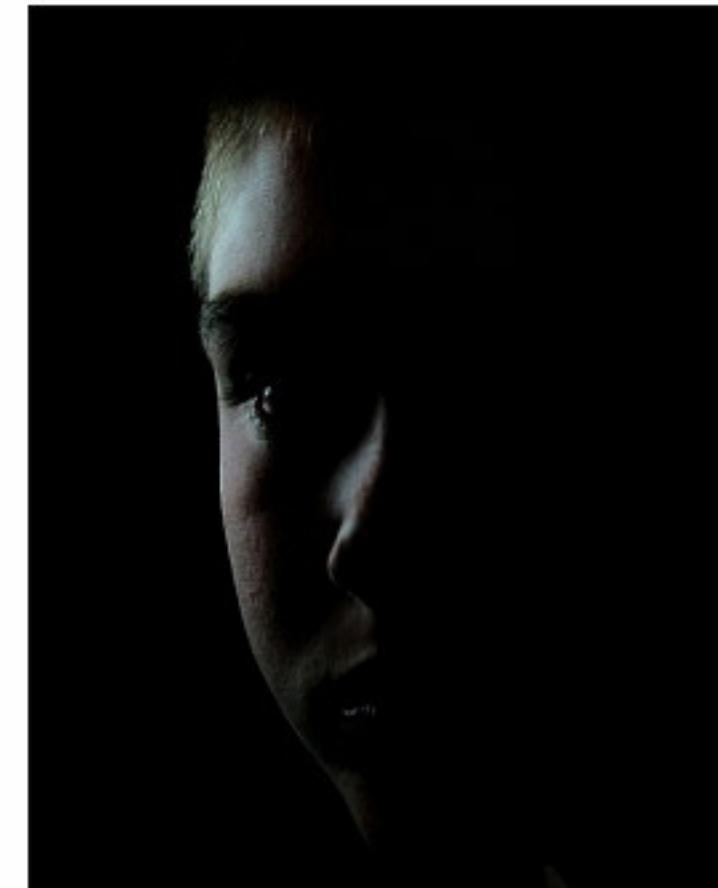


On the left, the areas highlighted by the torch during this 5 second exposure stand out in an unusual sort of way. On the right, the same sort of thing with a 30 second exposure - except the moon was also in the background.

## Taking Shots in Low Light

**People.** Getting a clear shot of people in near darkness requires some cooperation. Because you have to use slightly slower shutter speeds, any movement will translate as blur.

In very poor light, you will probably have to experiment to get the best settings. But expect to have a shutter speed of between 1/10 and 1/3 of a second, and an ISO setting of 400 or more.

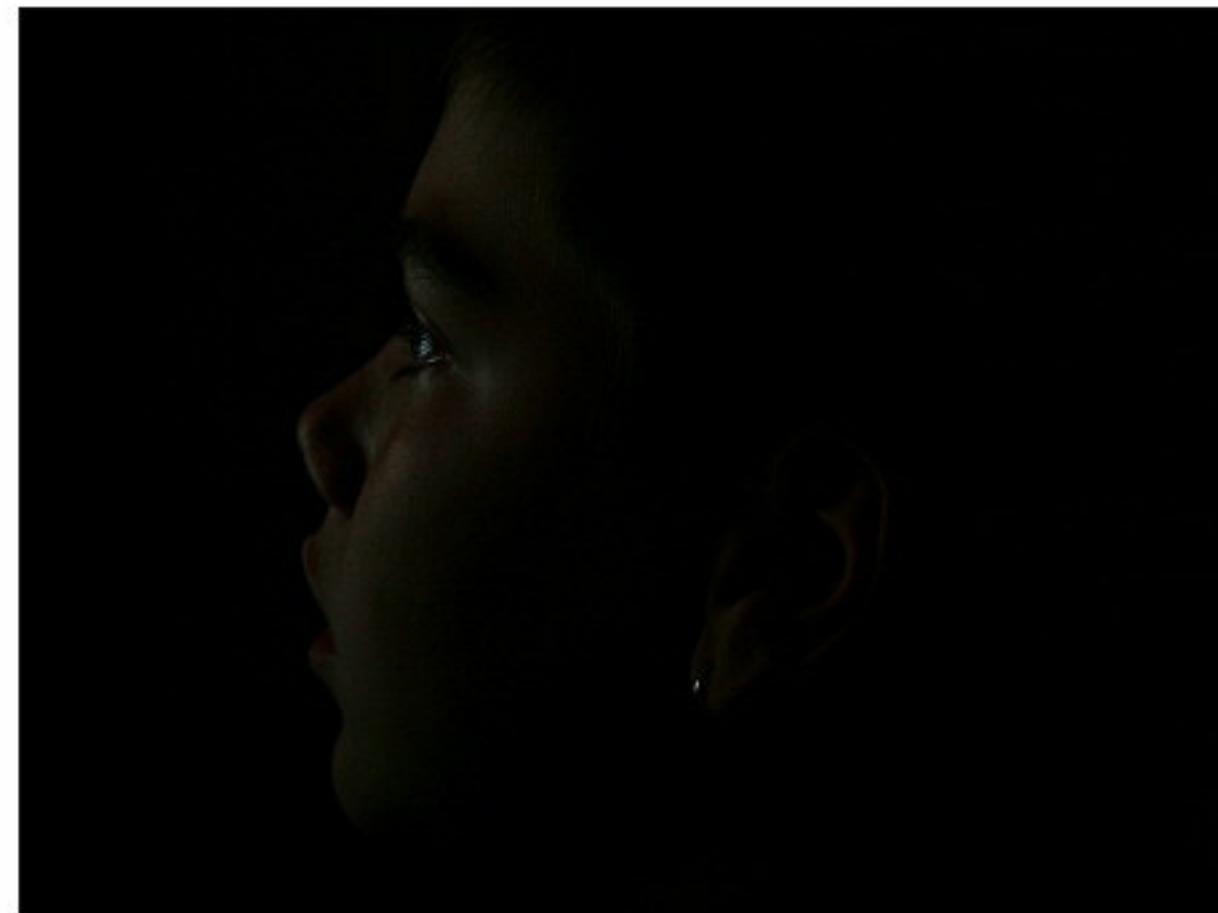


*A shutter speed of 1/3 of a second, and ISO 400. The subject kept quite still.*

## Taking Shots in Low Light

**People.** For a nice artistic shot, getting the light right is also important. Lighting from one side gives an interesting effect, and can highlight and/or exaggerate facial features.

Don't make the lighting too harsh. Below, we used the soft light of a computer monitor to highlight this subject.



*A shutter speed of 1/8 of a second, and ISO 200. The subject kept quite still.*

## Taking Shots in Low Light

**People.** Fire can also provide some nice soft light. Again, because we have to use a slower shutter speed, we took a lot of shots to ensure one was fine, with no blur. It is almost impossible to ask several people - especially kids, to stay still.



*A shutter speed of 1/8 of a second, and ISO 400.*

## Taking Shots in Low Light

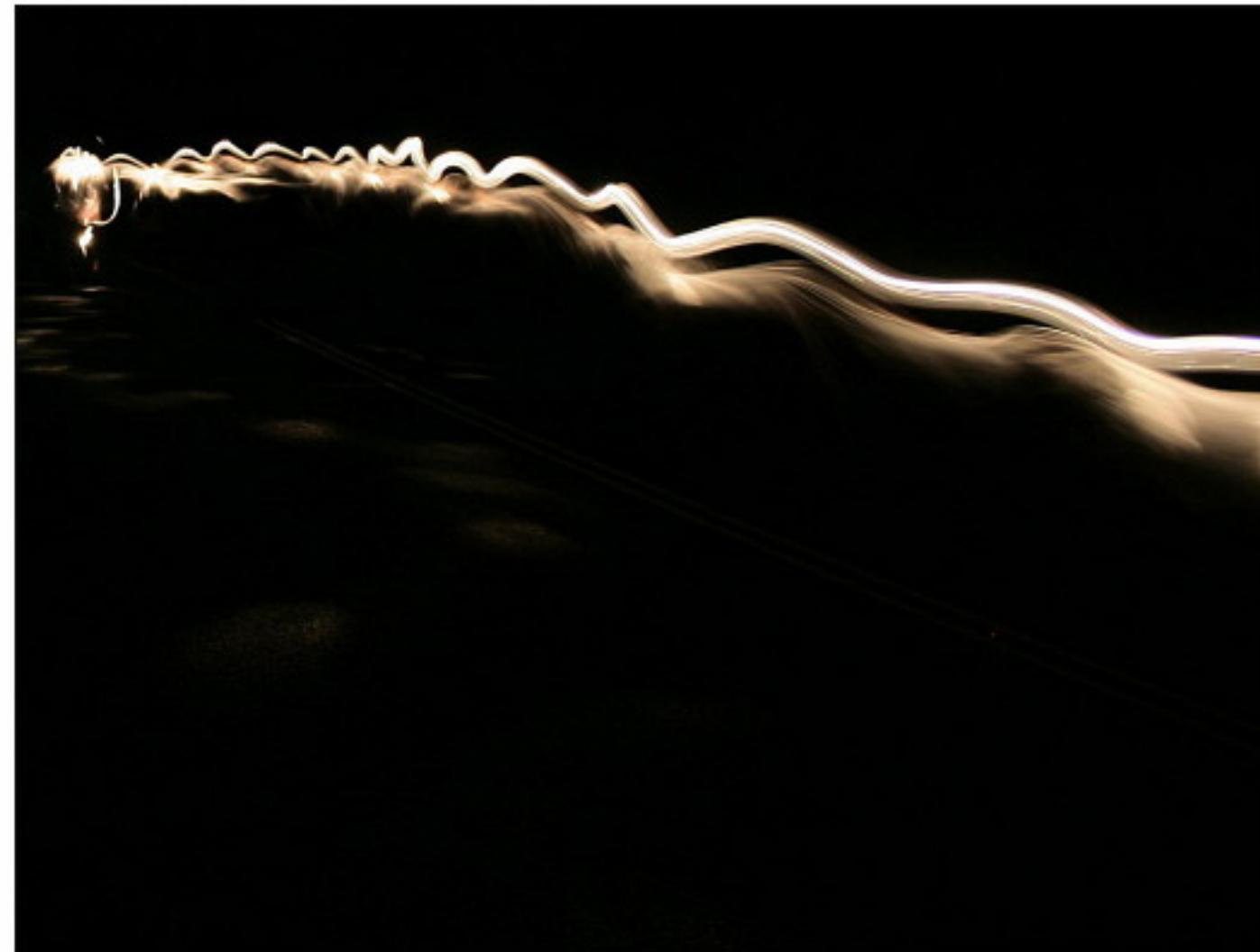
**People.** In near darkness, silhouettes can be achieved using slightly faster shutter speeds than you might normally use. This can be done where there is a light source in the background.



*A shutter speed of 1/60 of a second, and ISO 1600.*

## Taking Shots in Low Light

**Movement.** If you want to catch movement, then try slower shutter speeds. Ideally, there is some sort of light source for this effect to look good.



*For this shot, we set the shutter speed to 15 seconds. ISO was set to 100. We asked someone to run down the street with a torch...*

## Taking Shots in Low Light

**Movement.** A slow shutter speed at night is also a great way to capture headlights, torches, sparklers, some fireworks...



*For this shot, we set the shutter speed to 10 seconds. ISO was set to 100. A flint was sparked in all different positions to get the effect.*

## Taking Shots in Low Light

**Movement.** Here are some other examples of movement at night, gained with slower shutter speeds.

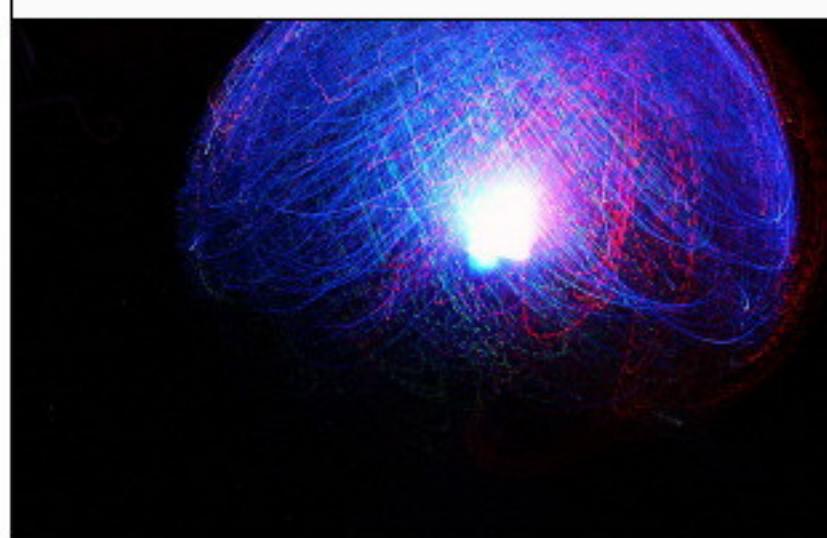
*1/40 of a second, ISO 1600*



*6 seconds, ISO 100*



*2 seconds, ISO 200*



*1/6 of a second, ISO 400*



## Taking Shots in Low Light

**Scenery.** Photographing scenery at night, or near night, can result in beautiful photographs - as long as there is some light source.



*Here we used an exposure of 5 seconds to get this shot, with an aperture of F5, and ISO 400.  
The moon is a little overexposed, but we decided to keep it in.*

## Taking Shots in Low Light

**Scenery.** Set exposures to between 5 and 30 seconds, depending on how much light is available. Start with an ISO of around 400, but this can also go up or down. As long exposures can result in some noise, below we used an ISO of 100 for this 8 second exposure.



*Here we used an exposure of 8 seconds to get this shot, with an aperture of F3.5, and ISO 100.*

## Taking Shots in Low Light

**Post Processing.** As always, most shots can benefit from a little tweaking in a graphics program. This is especially true when photographing in near dark conditions - because quite often there are areas you just want to be **black**.

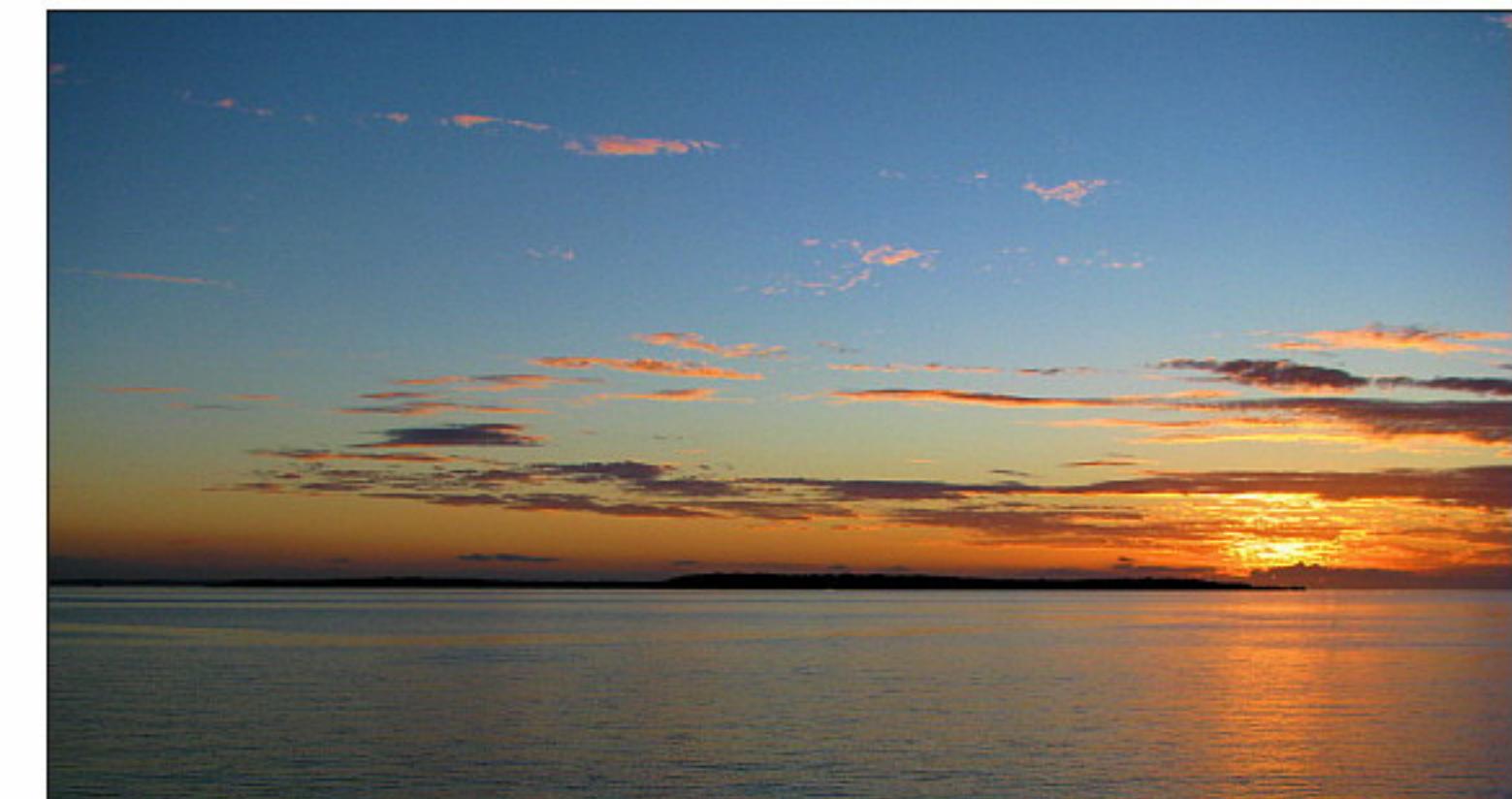


*On the right, we used a graphics program to tone down the shadows in the image - see the background in the image on the left? It is almost gone in the image on the right.*

## Taking Shots in Low Light

**Sunsets.** Most cameras can handle sunsets automatically fairly well. Some even have a sunset setting you may want to try.

There is generally no need for high ISO settings, or long exposures. A tripod, however, gives much better results.



## Taking Shots in Low Light

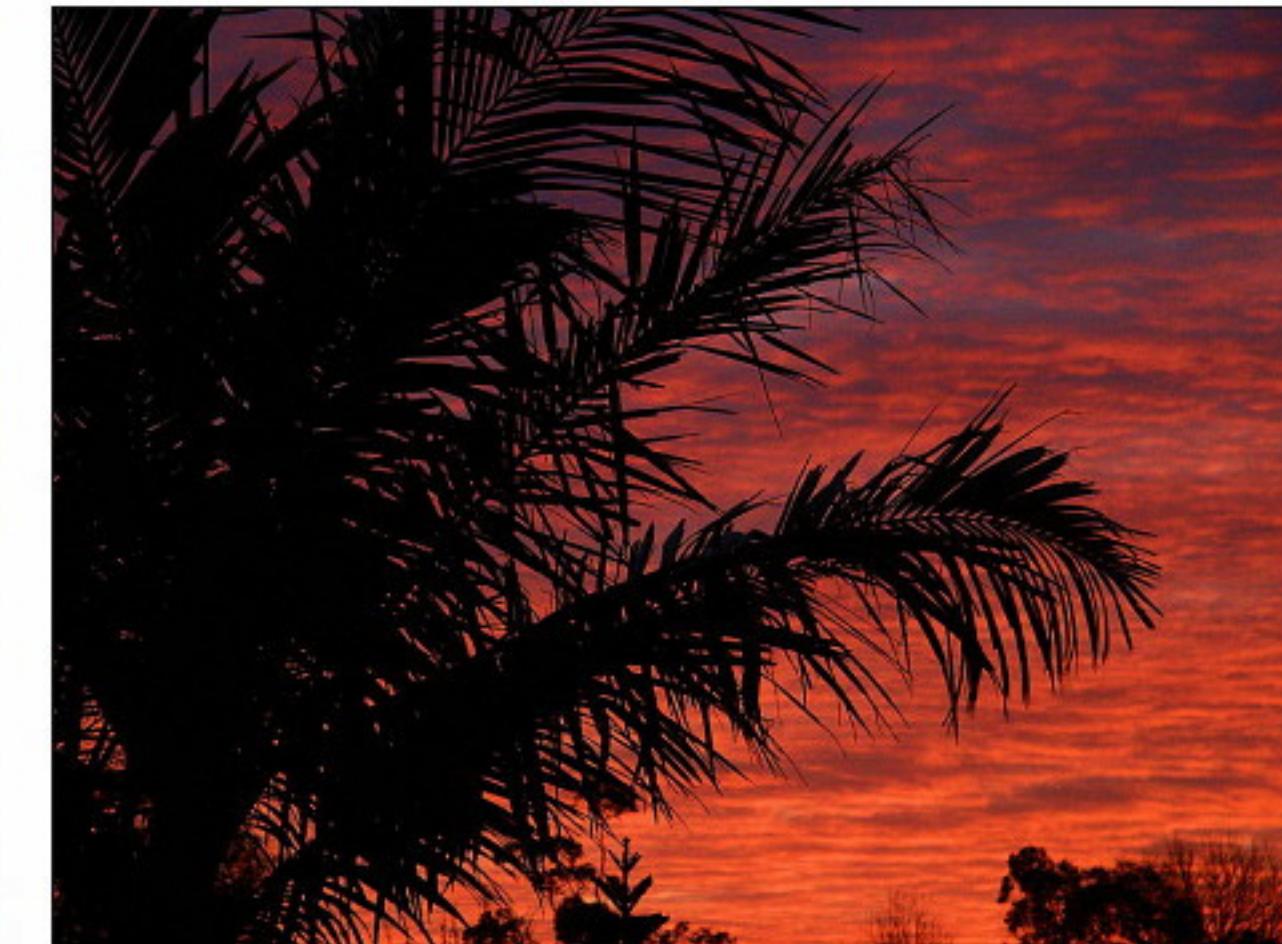
**Sunsets.** As with all landscapes, ensure that the horizon is straight, and falls about 1/3 from the bottom of the image. The main area of interest is the sky, so show plenty of it.



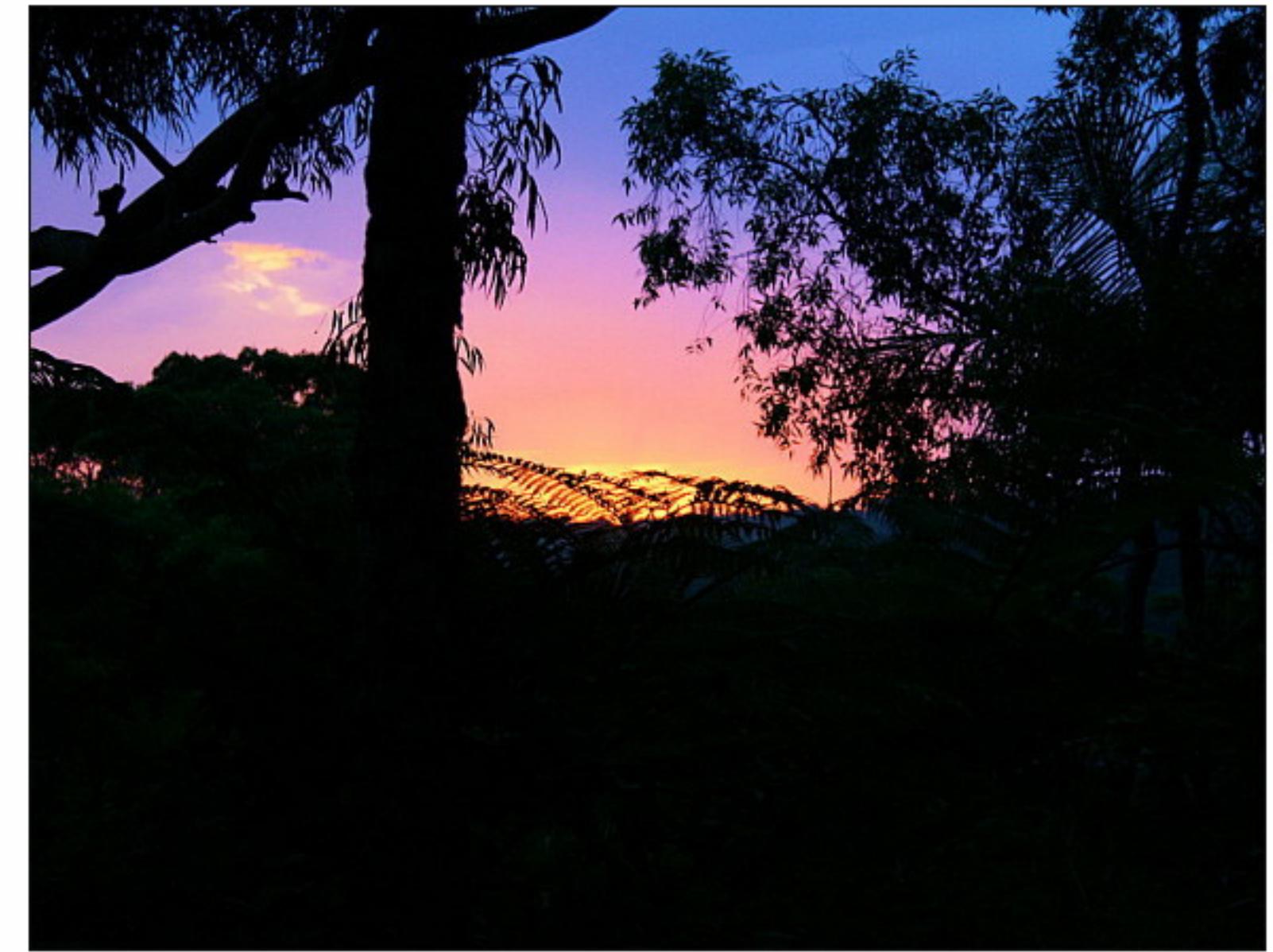
## Taking Shots in Low Light

**Sunsets.** Exposure bracketing is something that works well with sunsets. If you don't have exposure bracketing on your camera, try a few different shutter speeds, or ISO settings.

Below, on the top, we used a shutter speed of 1/60 of a second. However, on the bottom, we used a setting of 1/125 of a second. This has silhouetted the tree more, and brought out more color in the sunset.



## Taking Shots in Low Light



*The variety of colors you'll get in sunsets is amazing - so try a few different settings, or exposure bracketing.*

## Taking Shots in Low Light

**Fireworks.** Most cameras can handle fireworks automatically fairly well. Some even have a fireworks setting you may want to try.

Fireworks are a little like the moon - brighter than you think. Shutter speeds from 1/60 to 1/300 are generally fine, as long as the correct ISO is selected as well.



## Taking Shots in Low Light

**Fireworks.** One tricky thing with fireworks is knowing when to take the shot. So, take a lot - try burst mode, if your camera supports it. Flash is not required for fireworks, so burst mode should work fine.



## Taking Shots in Low Light

**Fireworks.** The other tricky things with fireworks is focus. Your camera may be quick enough to get a focus, so you probably set to infinite focus - or close to it, before you start taking shots.

After you've taken a couple, review them in the camera - and zoom in on the review. Make sure the focus looks correct, and adjust if necessary.



## Taking Shots in Low Light



*Bats, just after sunset. This one is hard to get because there is so little light, and because we are trying to photograph moving bats, we can't lower the shutter speed, which would be the usual tactic. So, we increased the ISO to 1600. This did give us a lot of noise, so we used a graphics program to perform noise reduction.*

## Taking Shots in Low Light



*On the left, the original shot. Zoom in on it, and you'll see how much 'noise' there is. On the right, the photo after we performed noise reduction - it is amazing what can be done.*

## Taking Shots in Low Light

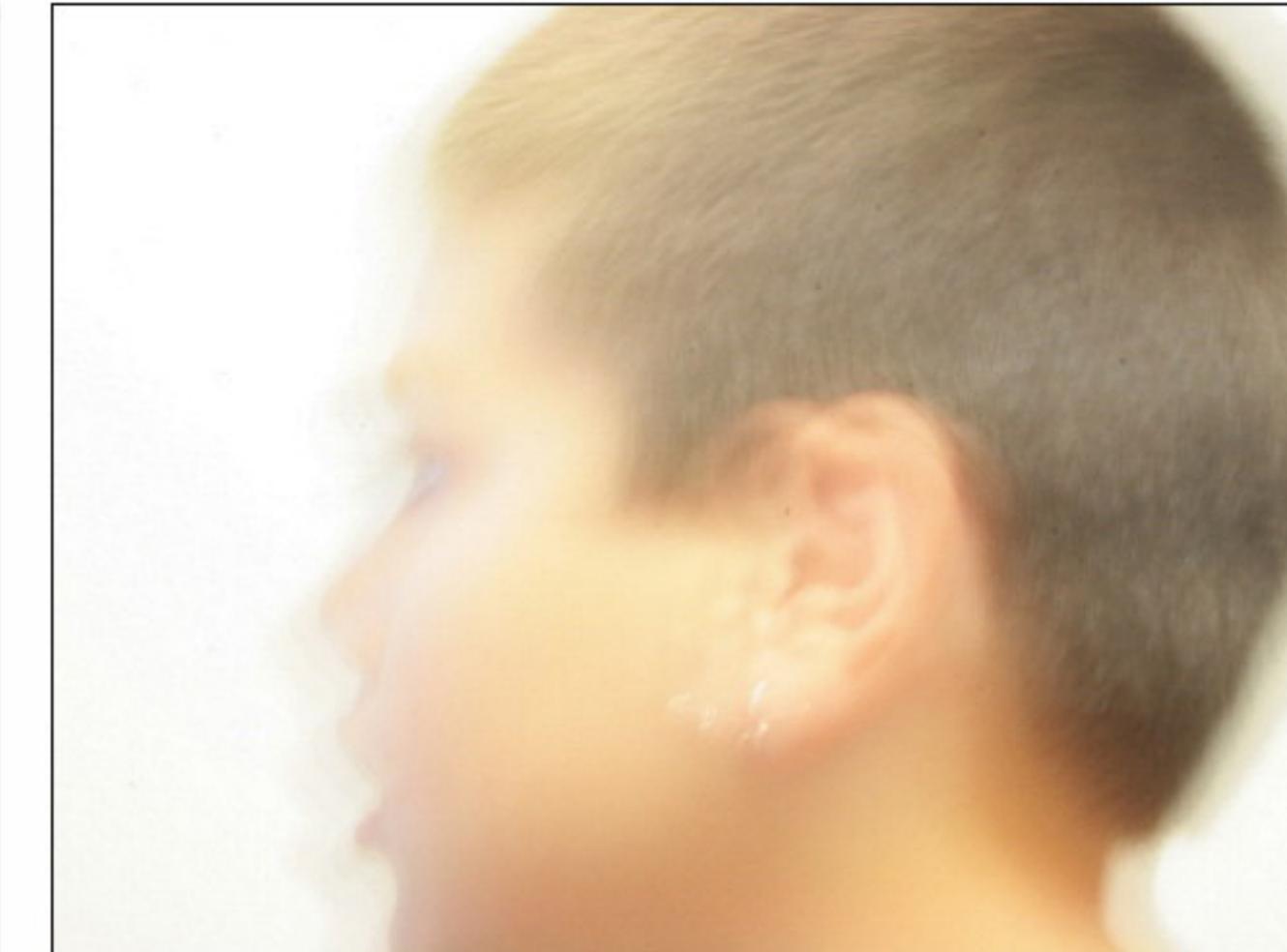
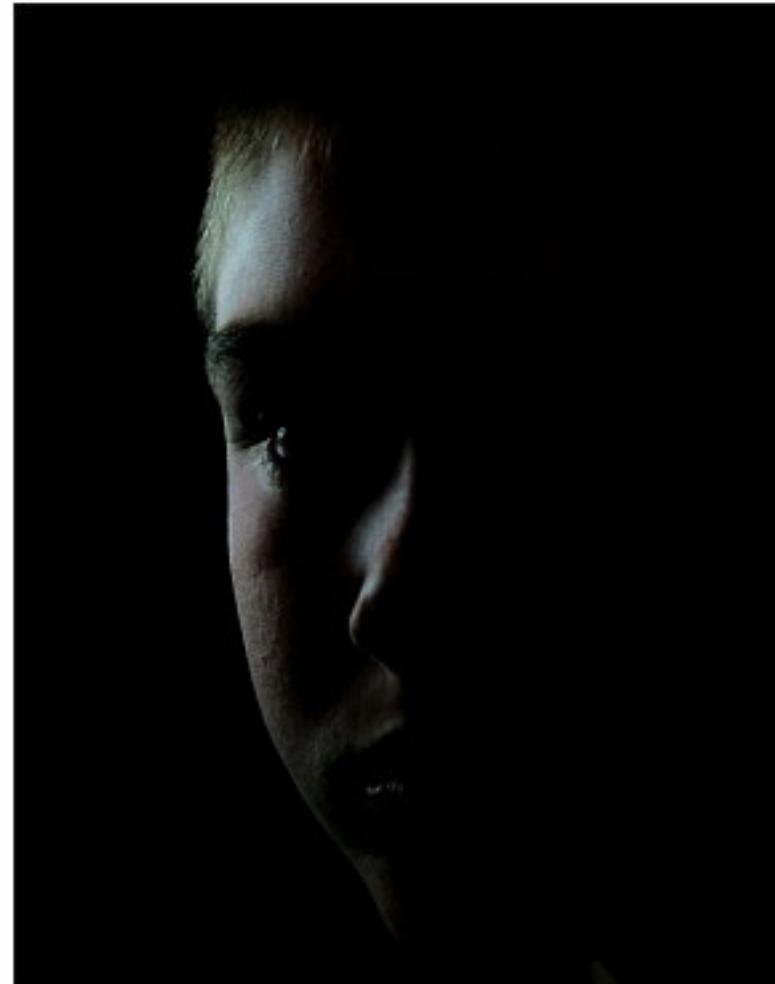


*For these shots, we set the exposure bias on the camera down two stops. This means we want it to appear darker than it might normally appear. We also set it to B&W (using an in-camera filter), and set the ASA to 100. Exposure time was 1/60 of a second.*

## Taking Shots in Low Light

**Take a Lot of Shots.** We say this one a lot, but we can't emphasize this enough. Take lots of shots. Try different settings. You'll start to learn what works well in what conditions.

Believe me, they will not all turn out.



*In the same set of photos in which we got the shot on the left, we also got the one on the right...they won't all work out.*

## Taking Shots in Low Light

Well done. You've now completed this lesson.

In this lesson, we took a look at **Taking Shots in Low Light**.

