Digital SLR photography hints and tips for beginners and amateurs.

Listed below are a few useful tips for those photographers progressing from a point and click camera to a digital SLR (also known as DSLR) camera.

1. **Don't throw your camera manual away.** It will become your new best friend. Read it as often as possible, especially in the first couple of months after purchasing your DSLR camera. Always store it somewhere handy. For example in your camera bag.

2. **Buy a UV filter for each lens you own.** It's easier to replace a scratched lens filter than it is to replace your actual lens.

3. **Learn to use all your SLR camera settings.** Even those you don't think you'd ever use. Practise changing settings like ISO, aperture and shutter speed, so you know them like the back of your hand. A moving animal won't sit and pose until you work out your settings.

4. **In addition to UV filters, other important pieces of equipment should include a sturdy tripod and a remote release.** They both come in handy for taking photographs that require long shutter speeds. For example night photography or slow motion water.

5. **You can never have enough SLR / DSLR photography magazines and books to learn from.** The best ones will explain what camera settings were used, along with each photograph displayed.

6. **Don't touch or blow on the mirror inside your camera body when you have the lens off**. If you damage the sensor, you may as well buy another camera body, because that's how much it will cost to fix. If you notice spots appearing in your photos, buy a cleaning kit or dust blower from your local camera store. Many now have an inhouse cleaning service which is always a good alternative.

7. **Don't change your lens outside if it's windy.** Put the main lens on your camera before you leave the house. If you need to change the lens outside, face the camera body downwards. Dust can't fall upward onto the camera's sensor.

8. **If at first you find your getting a lot of blurred photo's, change to a fast shutter speed.** The faster the photograph is taken, the less chance there is of it being effected by camera shake. Holding the camera closer to your body or resting it on a nearby

object is also a good tip. If you're taking nature shots, steady yourself by leaning against a tree.

9. **When you buy a digital camera bag, think about the future.** Many photographers on average own at least 3 lenses. Personally I own 2 camera bags. One holds a camera with a single lens. This is useful for times when I know I'll only be needing one lens. For example, if I'm going out to photograph landscapes I don't need to lug myself down with all 3 lenses. Or if I'm going out to photograph macro's, then I don't need to also carry my landscape lens. My second bag carries my camera and all three lenses. This one is useful for travelling purposes.

10. **Learn what RAW file format is.** Setting your digital camera to shoot in RAW is particularly useful for beginners to SLR photography. If you have your camera's white balance or picture style set wrong when you take a photograph, you can change this later on with a RAW editor on your computer. There will also be many times when you only get one chance to take the photograph. For example, a bird won't fly past time and time again until you have the cameras white balance set correctly for that specific scene.

11. **The best way to learn what your SLR camera can do, is through experimentation.** If your taking a photograph of running water, try both fast and slow shutter speeds to see for yourself what the difference is. Or if your photographing a beautiful landscape, try different aperture settings. You'll be surprised at how many photo's you can get from shooting the same scenery with different settings.

12. **Always press the shutter button half way down to prefocus** before going all the way and taking the photograph. This will usually result in clearer photo's every time. It is also especially useful when you can anticipate where a subject is going to be positioned before it gets there. You can prefocus on that spot by pressing and holding the shutter button half way, then as it comes into view, press the rest of the way down.

Simple green rule for exposing shots taken near nature

Whenever you take a photograph in or around nature, it's useful to expose on any part of the scene that is green, then underexpose it by two thirds.

For example, for the photograph below, the exposure was taken from the green leaves to the left of the flowers. I then underexposed the shot by 2/3, refocused on the flower and took the shot. As the camera was set on manual, the shutter speed (exposure) stayed as it was when exposed on the green leaves. Usually when you refocus on the subject you want to take a photo of, the camera will tell you the exposure is wrong. Ignore this and take the shot anyway. In most cases, it will result in a nicely exposed, detailed photograph.

If you're not sure what I am referring to by '*setting the exposure*', you can find a good article on this at: Advantages of manual settings.

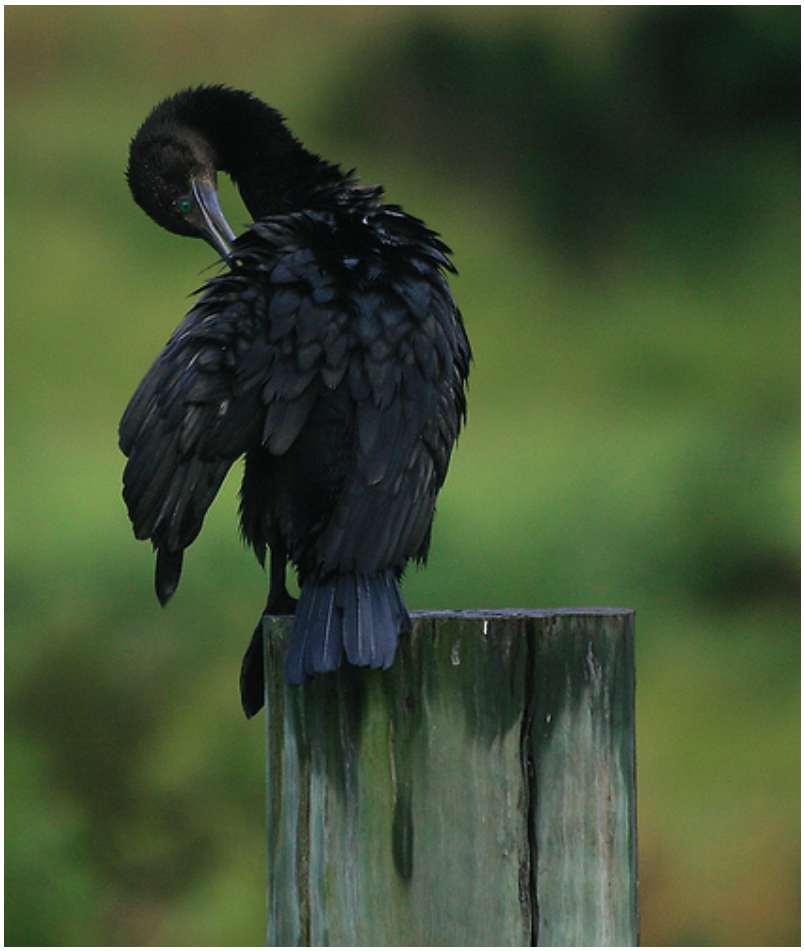
Note, this exposure tip will also work when you have your camera set on shutter priority. However, it won't work for automatic modes (such as landscape, portrait) or aperture priority, as the camera then sets the shutter speed for you.

Exposing Flower Gardens

Camera: Canon EOS 400D / Rebel XTi
Lens: Canon EF 100mm f/2.8 Macro
Shutter Speed (exposure): 0.005 sec (1/200)
Aperture: f/11
Focal Length: 100mm
ISO Speed: 200
Exposure Program: manual

Tip for exposure

The camera was set on manual mode with an aperture of f/11. I focused on the green leaves that had similar light falling on them as the flowers and underexposed by two third's. Next I focused on the purple flower and took the shot (without re-exposing). As you can see, this resulted in beautifully colored photo with a nice balance between light and shade.



Exposure tip for black subjects like birds

Camera: Canon EOS 400D / Rebel XTi
Lens: Canon EF 70-300mm f/4-5.6 IS USM
Shutter Speed (exposure): 0.002 sec (1/500)
Aperture: f/5.6
Focal Length: 300mm
ISO Speed: 400
Exposure Program: manual

Tip for exposure

Taking the exposure on something that is green, is particularly useful in times where the subject is black. If the shot above was exposed on the black bird, the details on the feathers and the green eye would have been lost. Instead, the photographer took the exposure on the nearby grass and then underexposed it by 2/3'rds.

Another time this exposure tip was useful, was during an outside photo shoot of my son. The first shot I'd taken was exposed on my son's face. Looking back on the LCD screen, I'd found there was a dark shadow over one side of his face. The shot was taken again, this time exposing (-2/3) on the green grass next to him. This helped to eliminate the shadow on his face.

How to focus to or on infinity?

When reading manuals or photography magazines and books, you will come across the term, 'focus your camera to infinity'. You may also notice the word or infinity symbol on one of your camera lenses. This can usually be found when you turn your camera lens to manual focus (MF) and rotate the focus ring either all the way to the right, or all the way to the left. Nikon and Canon lenses work complete opposite to each other.

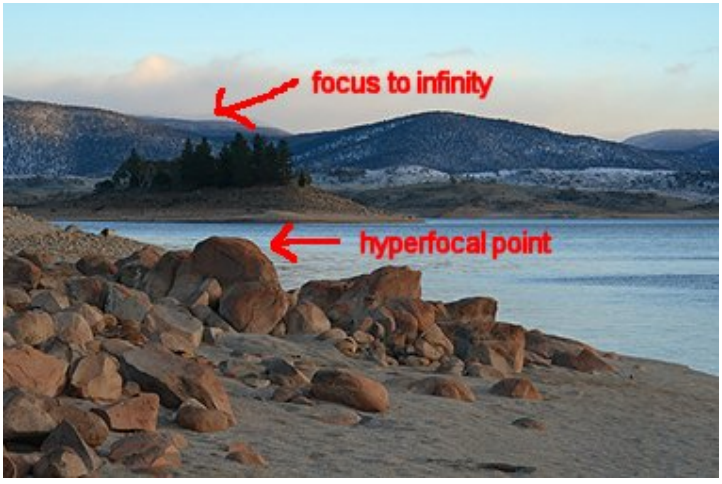
On the example lens on the left, notice there are two focus rings that can be rotated. If your particular lens doesn't have these, then it can't manually be set to infinity.

If your lens does have two rotatable focus rings, firstly change the AF/MF switch to MF (manual focus). Next, turn the smaller focal ring all the way to the right and then all the way to the left, until you see the infinity symbol.

Now look through your viewfinder and point your lens towards an object in the distance that you want to photograph. Rotate the larger ring with your fingers until the object looks to be in sharp focus. If doing this doesn't achieve sharp focus, you may need to physically move yourself closer to or further away from the object. Now take the shot.

This is the technique known as focus to infinity.

Another example showing how to focus on infinity, can be seen in the image below. A photographer could set their main focal point on the rocks and take the shot. Or alternatively, they could focus on the mountains in the distance. By which case, they would be focusing on infinity.



Other tips for focusing on infinity

- When using this technique, it's more effective if you have your aperture f stop, set to the highest f number. For example f/22 or higher.

- Use a tripod, as you should with all photography where the aperture f number is very high.

Sunset Photography Tips

Every SLR photographer at some time, wants to capture the perfect sunset. However, as many find out, depending on your digital camera settings and from what part of the sky you take the exposure from, results can greatly vary.

1. Before you even start thinking about where you take the exposure from, firstly you need to do your homework. For instance, know where the sun is going set. With this knowledge in mind, arrive early and have a good look around for the best position. Think about how you're going to frame your shot. Is there a tree you can position within the composition to act as a silhouette to help give the photo more interest? You don't want to clutter the picture, so look for a tree that has clearly defined lines.

2. After you have your composition thought out, the next thing to think about is the exposure. If you're not sure what I mean by exposure we have a beginners article on Exposure Compensation Tips. When it comes to sunsets, there is no correct exposure. It really depends on the type of shot you want to achieve. Two people can photograph the same sunset at the exact same time and end up with completely different, yet effective results.

The main advice I can give to those after exposure tips, is to take the exposure from the colored part of the sky on either side of the sun. Some photographers like to underexpose it by one or two stops so the overall image ends up with a darker look to it. Experimentation is the key here. What part of the sky you take the exposure from, and whether you underexpose the shot or not, will result in different colors seen within the sky.

Sunset

Camera: Nikon D40
Lens: AF-S DX Zoom Nikor 18-55mm F/3.5- 5.6 G ED II (kit lens)
Exposure: 0.002 sec (1/640)
Aperture: f/11
Focal Length: 35mm
ISO Speed: 200
Exposure Program: manual

Why this image worked

For starters the composition of this sunset was well thought out. The photographer has arrived early and had a good look around for the best position. He knew where the sun was going to set and waited for a night where the tide was in so he could get the reflection over the water. Notice he's also framed the scene nicely with the tree on the left.

The exposure for this sunset was taken on the sky to the right of the sun, then he's underexposed it by two stops. The photographer suggests taking three separate shots to begin with. One exposed evenly, then another one stop under and a third 2 stops underexposed. Then look back at them on your LCD screen and see which gives the nicer effect. In most cases, he keeps the sunset that is 2 stops underexposed.

Other tips for sunset photography

- Use a tripod and remote release. The darker it gets, the slower the shutter speed, making it impossible to hand hold your camera without shake.
- Like any landscape, you will want much of the scenery to be in sharp focus. Therefore set your camera's aperture to around f/8 - f/11. Each will effect the resulting color, so be sure to check your camera's LCD screen after taking the first shot.
- As it gets darker, you might find your lens swims a lot if you have the automatic focus (AF) turned on. If this happens, it's best to turn off automatic focus and do it manually, by looking through the viewfinder and turning the focal ring on the lens until everything looks sharp.
- Shoot the images in both jpg and RAW. Then you can open the RAW image later on in an editor like Photoshop and change the white balance to see which gives the best results. Personally I've found cloudy or shade white balance settings gives a warmer golden tone to the sunset.

Quick tip for cropping photographs

One of the best pieces of advice I've been given for cropping photographs of animals that are on the move, is to not crop them too tightly. If they are moving from left to right for example, then leave some space to the right of the animal to show the viewer where it is heading.

If you crop photo's of moving animals too tightly within the frame, they almost seem as though they are similar to a bird trapped in a cage. Animals and wildlife especially, should be free to roam. Show this in your photographs composition as well for a much stronger image.

Cropping moving animals

Camera: Canon EOS 400D / Rebel XTi
Lens: Canon EF 70-300mm f/4-5.6 IS USM
Exposure: 0.001 sec (1/800)
Aperture: f/5.6
Focal Length: 300 mm
ISO Speed: 200
Exposure Program: manual

Why this crop works

Taking into consideration that this dog was moving from left to right, I left room on the right side of the photograph to show where the animal was heading. If I had cropped the image tighly at the tip of his tongue, it would have been like putting a brick wall in front of him. This would have made the picture seem off balance.

Composition tips for landscape horizons

One of the most important aspects to take into account when photographing landscapes, is where to place the horizon. The position of a horizon within a photo's composition, can make a huge difference between seeing a good or bad result. Before you position a horizon, you need to think about what it is you are taking a photograph of. Ask yourself whether it was the ground or the sky, that first took your eye.

For example, if it was water reflections on a beach that first took your eye, then make sure the ground area makes up 2/3 of your photo, placing the horizon within the top third of the image. On the otherhand, if it was a beautiful cloud formation in the sky that made you want to photograph the landscape, then place the horizon within the bottom third of the image, so the sky takes up the top two thirds of the image. A mistake many amateur's make, is that they cut the landscape in half by placing the horizon dead centre in the middle of the frame. At first, this would confuse a viewer, as it wouldn't be clear what it is they are meant to be looking at. Is it the sky, or the ground area you are showing them?

Photographing the sky

Camera: Canon EOS 400D / Rebel XTi
Lens: Canon EF-S 17-85mm f/4-5.6 IS USM
Exposure: 0.04 sec (1/25)
Aperture: f/11
Focal Length: 17 mm
ISO Speed: 100
Exposure Program: manual

Why this image worked

When I went to the beach on this particular evening, it was the sky with it's beautiful cloud formations that enticed me to take the photograph. Therefore, I placed the horizon line along the bottom 1/3 of the frame so that the sky would take up the top 2/3's.

Positioning the horizon

Camera: Nikon D40
Lens: AF-S DX Zoom Nikor 18-55mm F/3.5- 5.6 G ED II (kit lens)
Exposure: 0.333 sec (1/3)
Aperture: f/29
Focal Length: 55 mm
ISO Speed: 200
Exposure Program: manual

Why this image worked

Considering in this case, it was the foreground of the beach and the crashing waves that was being photographed, the horizon line was positioned on the top 1/3 of the frame.

Wildlife and animal photography tip

The rules for photographing wildlife and animals aren't that different to photographing people. The mistake many amateur photographers make is to aim their camera's focal point directly at the animals body. Professional wildlife photographers however, set their focus on the animals eyes. If the eyes are not in focus then the whole image will lose its impact. Take the image below for example. It's obvious that the eye is not the main focal point, therefore creating a very average feel to the overall photograph.

Now compare the first example with the image below of a wild bush turkey.

Wildlife

Camera: Canon EOS 400D / Rebel XTi
Lens: Canon EF 70-300mm f/4-5.6 IS USM
Exposure: 0.013 sec (1/80)
Aperture: f/6.3
Focal Length: 300 mm
ISO Speed: 200
Exposure Program: manual

What makes this wildlife animal shot work

What gives this photograph more impact than the first example, is that the turkey's eye is the main focal point, making the eye very sharp. If I had aimed at the animals body, they eye would have had that unsharp glossy look to it, similar to the first example.

When photographing wildlife, more often than not, the animal will be on the move. It won't matter if the body is partly blurred, as long as the eyes are sharp as a tack. So next time you're out photographing animals, instead of pointing the camera's focal point at the body, aim it at the eyes instead. You're sure to notice a huge difference in the results.

Photo Composition Tip

When photographing objects or buildings, it can be more interesting to shoot only part of it. Or in other words, shooting in pieces can be stronger than the whole. Often photographing the whole scene can make a photograph so busy, that the viewer doesn't experience the grandeur of what you're trying to convey. Don't get me wrong, I'm a huge fan of wide angle lenses that capture as much as possible in one photo. However, in some circumstances, a wide angle shot won't capture small details. And sometimes, it's the small details that caught your eye in the first place. Composing your photographs in this way, will enable the viewer to fill in the rest with their imagination, thus making the photographer a storyteller.

Fishing Boat *Camera:* Canon EOS 400D / Rebel XTi
Lens: Canon EF 70-300mm f/4-5.6 IS USM
Exposure: 0.004 sec (1/250)
Aperture: f/11
Focal Length: 300 mm
ISO Speed: 100
Exposure Program: manual

Why this image worked Photographing only half of the boat, uncluttered the whole image. This helped to bring attention to the water reflections on the front side of the boat, which may have otherwise not been noticed.

Digital SLR camera settings for windy conditions

Close to where I live is a local botanical garden, always full of colorful flowers in full bloom. As you can imagine, it's a wonderful place for flower photographers to spend the day.

I was recently chatting to a nature photographer there who happened to be cursing the windy conditions. I noticed his camera was sitting on a tripod and he seemed to be trying to block the wind out with his body, waiting for what seemed like forever for the wind to calm down a little so he could take his shot. Seeing his frustration, I asked him what camera settings he was using. 'Manual of course' he remarked. It had never occured to him that there were numerous camera settings available to help out in specific circumstances.

For example, in windy conditions you need your camera to take the photograph as quickly as possible. Or in other words, shoot instantly as if snap frozen. Therefore, it's sufficient to suggest that in windy conditions, shutter priority is the best digital camera setting to use for flower photography.

What is the best camera settings for windy conditions?

- The most important aspect for windy weather is to take the shot as quickly as possible. Therefore start by setting your SLR camera on Shutter priority.

- Next you need to set it on a fast shutter speed. I recommend trying 1/250th of a second, then go faster from there if needed.

Yellow flowers in windy conditions ***Camera:*** Canon EOS 400D / Rebel XTi
Lens: Canon EF 100mm f/2.8 Macro
Exposure: 1/250th of a second
Aperture: f/4.5
Focal Length: 100 mm
ISO Speed: 100
Exposure Program: shutter priority

Why this image worked

The weather conditions on this particular day was very windy. Therefore I put my digital SLR camera on shutter priority with a fast 1/250 speed. Furthermore, I took advantage of continuous mode, so I could take as many photographs as possible within each second time frame. As it turned out, this resulted in quite a few sharp images of flowers for me to choose from.

Advantages of continuous mode and shooting in bursts

If you've ever taken photographs of children, animals or insects, chances are you've most likely ended up with images that look quite blurred. This is because they tend to move around a lot and by the time your digital SLR camera has focused on the subject, it has moved or is moving while shooting the photograph.

The trick many professional photographers use in these circumstances, is to put their digital camera in continuous mode (check camera manual) and shoot in bursts. Taking numerous photographs in continuous mode gives you a higher chance of getting at least one sharp as a tac image. This is especially important for once off moments that may not occur again.

Grasshopper / Katydid

Camera: Canon EOS 400D / Rebel XTi
Lens: Canon EF 100mm f/2.8 Macro
Exposure: 0.008 sec (1/125)
Aperture: f/11
Focal Length: 100 mm
ISO Speed: 400
Exposure Program: manual

Why this image worked

When photographing nature, one thing I've learned about insects is that they are unpredictable. Within seconds they can fly or hop away. Furthermore, they rarely stay still and are always moving around. Even the slightest head movement can cause an image to be blurred, especially when working with macro lenses.

This is why I always have my digital camera set in continuous mode when doing macro shots. This way I can shoot off several images in bursts, all within a one second time frame. Normally one will end up sharp and in focus. Unlike the ole days, photographing in digital doesn't cost you any extra and you can easily delete all the bad ones later on.

How to photograph water reflections

When it comes to taking good water reflections, there are two important steps. One is to expose on part of the water that doesn't contain the actual reflection, yet is still close to some part of it. If your not sure what *'setting the exposure'* means, you can find some information on this at: manual modes.

Next, set your camera on a high aperture number (if photographing landscapes), for example f/11, so the whole landscape will be in focus. Then before taking the shot, focus your camera on the actual reflection and press the shutter button. You should then find you end up with a perfect water reflection that seems almost mirror image.

Reflections in the water

Camera: Canon EOS 400D / Rebel XTi
Lens: Canon EF-S 17-85mm f/4-5.6 IS USM
Exposure: 1/125th of a second
Aperture: f/11
Focal Length: 35 mm
ISO Speed: 100
Exposure Program: manual

Why this image worked

This photograph was taken at 7am on a cloudy day. The time of the morning, as well as the overcast conditions, made it a perfect situation for finding good water reflections at the local Botanical Gardens. I took the exposure on the water on the left, just under the green land reflection (the blue part of the water). I then focused on the reflection itself in the middle of the frame and took the photograph. Due to an aperture of f/11, the whole landscape is seen in focus.

Reflection of seagull in the water

Camera: Nikon D40
Lens: Nikon 55 - 200 mm lens
Exposure: 0.002 sec, 1/500th of a second
Aperture: f/5.6
Focal Length: 200 mm
ISO Speed:450
Exposure Program: Program

Why this image worked

This photograph of a bird was taken in the late afternoon when reflections are at their second best time (second to mornings). It was also a shallow puddle that doesn't get the wind ripples that would occur in a larger body of water. Keep in mind, that after rain, there is always good reflections to be found in shallow puddles. Note also, the aperture could be kept to a low number f/5.6 as it wasn't a whole landscape that was being photographed, but rather a much smaller object and area size.

Christmas light photography

The end of the year when all the Christmas light decorations go up in the street, is a wonderful time for getting out your digital SLR camera and doing night photography.

With Christmas lights flashing and people randomly walking around the decorations, it's important not to set a too slow of a shutter speed. The last thing you want is a decoration or person seen in your photograph as a slow motion blur. To get around this, you need to keep a low aperture and higher than normal ISO.

Recommended SLR camera settings for Christmas lights at night

- Use either a macro or an all purpose wide angle lens. A macro is useful if you want to seclude any one ornament or decoration. Where as a wide angle lens is great if you want to get the whole house into the picture.

- It's also a good idea to use a tripod, as the shutter speed will be too slow for sharp hand held shots.

- Set your camera on manual mode with a low as possible aperture f number. For example anywhere between f/2.8 to f/4.6 will be sufficient.

- For starters set the ISO to 400. Depending on how dark you want the images to be, you can adjust this later on. It's never recommend going higher than 800 however, due to loss of photo quality the higher the ISO.

- There are two ways to adjust the shutter speed. Firstly, you can focus the camera at part of the house that isn't too dark or too light and adjust the exposure. If you're not sure what I mean by exposure we have a tutorial on it at: How to use manual mode. If you like a darker photograph, then underexpose the settings by around 2 or 3 stops.

  Or you can take a bit of a punt and initially set the shutter speed to around 1/50th of a second, then adjust it give and take from there. If the photograph seems too dark for your liking, then choose a slower speed (up to say 1/25th of a second). If it's too light then choose a faster speed. As the night gets darker and light changes you may need to adjust this.

Example of Christmas lights taken at night time

Camera: Nikon D40
Lens: AF-S DX Zoom Nikor 18-55mm F/3.5- 5.6 G ED II (kit lens)
Exposure (shutter speed): 0.4 sec (2/5)
Aperture: f/4.5
Focal Length: 31mm
ISO Speed: 200
Exposure Program: manual

Camera settings explained

This shot was taken with the camera sitting on a tripod. This helped to avoid blurring due to camera shake. The lowest aperture for this particular lens was f/4.5. The photographer chose an ISO of 200 so he could retain high photo quality and he exposed the shot evenly at 2/5th of a second.

Another example of Christmas house lights

Camera: Canon 400D
Lens: Canon EF 100mm f/2.8 Macro USM
Exposure (shutter speed): 1/8th of a second
Aperture: f/2.8
Focal Length: 100mm
ISO Speed: 400
Exposure Program: manual

Camera settings explained

Again, the camera was on a tripod. However this time, a macro lens was used with the lowest aperture f number for the macro set at f/2.8.

Another useful setting for photographing Christmas lights at night

Put your camera on aperture priority and set the lowest f number your lens will allow, for example f/2.8 up to f/4.6. Again, it's a good idea to use a tripod.

When using aperture priority, make sure automatic ISO is turned off. You do want to choose this setting yourself, so you can keep it to around 400 ISO.