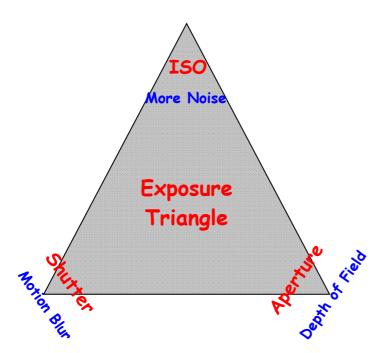
GCSE Photography

Unit One—Exposure.



As we know, three different elements make us the exposure that we use .

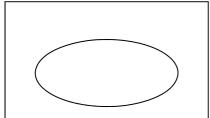
A combination of ISO, Aperture size and Shutter speeds make up the correct exposure, but the that begs an important question. What do we mean by 'correct'?

Imagine that you see in black and white. Most of the world would be some shade of grey or another. If we averaged out an 'average' outdoor scenes, on a percentage scale we would find that the world is 18% grey.

Cameras, therefore see the world as 18% grey, and average metering simply regards the whole of the frame as being 18% grey. While this may be true for some parts of the frame, it almost certainly will not be true for the whole frame.

Camera manufacturers have been aware of this from the first cameras to have built-in metering systems. For many years Nikon addresses this problem by making it's camera meter's, 'bottom centre weighted'.

Recognising that the sky is often much brighter than the ground, the meter in the camera gave more importance to the centre and bottom of the frame, and less importance to the top of the frame.



An illustration of bottom centred exposure metering, which works very well for many scenes where there is both land and sky—in other words the sort of photographs that most people take!

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In this example the principle works very well. The main details of the image is correctly exposed by the camera, but any detail in the sky tend to be lost. Clearly, however, as soon as I rotate the camera from landscape to portrait, the benefit of this type of metering is lost.

Evaluative Metering (on Canon cameras), or Evaluative/Matrix Metering (on Nikon cameras) - This is the "default" setting on most cameras. The camera sets the metering automatically to suit the scene and subject of the photograph. The entire scene within the camera's viewfinder is utilized to assess the appropriate metering. This is the mode to use when you're not sure which mode the scene will require.

Partial Metering (on Canon cameras), or Spot Metering (on Nikon cameras) - This type of metering is helpful for photographing back-lit subjects. The metering is weighted according to the very centre of the shot - a very small area of the frame. Use this mode when you have a very specific area of the photograph that you wish the exposure to be based upon.

Centre-Weighted Average Metering (on Canon cameras), or Centre-Weighted Metering (on Nikon cameras) - This metering setting gives priority to the centre portion of the photograph, but also takes the surrounding portions of the shot into consideration. Basically, this is somewhere in between Evaluative and Partial Metering. Use this setting when the subject is in the centre of the photograph and exposed correctly, so that the subject is not affected by the exposure of the background.