TSCC is for everyone who loves photography
www.tarponspringscameraclub.com
support@tarponspringscameraclub.com

Sensitivity, Light, & Movement or ISO, Speed & Aperture.

All 3 items are very related.
The camera has a meter that helps to decide the settings.
In the old days, cameras did not have this option, so a light meter was used.
Here is how to set those items to work:
All cameras have a choice or 'A automatic' or 'M manual'. There are other settings.
Select M for full control. The A, you do not adjust anything.
The first thing to set is the ISO. Usually is a menu option.
Best to use the lowest number in your camera. In most cameras is 100.
Next look at the meter in the viewfinder or the screen in back of the camera (LCD).
You will see a scale with a larger center line.
A proper setting will place a needle in the center.
The interpretation that follows is up to the photographer choice; darker or lighter.
If the needle is to the left, the picture result will be darker.
If the needle is to the right, the picture result will be lighter.
You will move the speed wheel or aperture wheel to move the needle.
If you do not see a needle, that means that either speed and aperture are too high or too low. So move either one or both until you see the needle. In very dark cases, the ISO is too low. In very bright cases like pointing toward the sun, too bright.
Adjust accordingly.
Why to use different settings:
ISO: the lower the number the best quality your camera will give you.
As you set a higher number, you will notice a grain and sharpness degradation.

Speed: if you want sharp images, do not move or hold your subject frozen on time! Easier said than done.
There are many reason for motion, how steady can you be holding the camera, the subject moves like a bird flying, a flower moved by the wind. Even clouds move.
Also the camera itself moves as you press the shutter.
If you or the camera moves, will result in a blur picture.
Here are some guide lines for speed.
Hand held, always be above 60^{th} of a second, less speed use a tripod.
Using a lens greater than 50 mm, double the speed. Example a lens of a 100mm or set at a 100mm speed recommendation, 200^{th} of a second; and so on.
If you need to reduce speed, use a tripod, hold yourself to a wall, while holding your breath (do not do this more than 2 minutes).

Place camera on fence or other holding place available.
Turn on the timer to 2 or 10 seconds.
Lock up the mirror. (Menu option in most cameras)
Use a digital cable release.
When shooting wild life, or sports use high speed of a 1,000th of a second or more.
On the other hand, to shoot at night you may be forced to be in 2, 15 or 30 seconds.
Tripod is a must.
Same as like trying to make falling or running water as a veil.
There is a setting in the camera, 'B' stands for BULB. It is used to hold the camera open for more than 30 seconds. Like shooting stars.

Aperture.

Besides letting light comes into the camera and making the picture light or dark, aperture will determine what fall in focus (Depth of field)
There are many factors when it comes to aperture.
Speed as ISO is clear, a setting will do just that. Aperture, will not.
Aperture is lens dependent.
So here are some basic facts to remember.
An aperture of 2.5 will allow lot of light. Aperture of 16 will have less.
An aperture of 2.5 will give sort focusing range.
Aperture of 16 will give a large focusing range.
And so is in between.
The optimal setting for quality, depend on the lens. Most lenses are about 8 or 11.
The focus or depth of field changes with lens used and distance to subject.
This the tricky part.
Taking a picture of a landscape, in most cases any aperture will do.
Taking a flower at short distance is important. Again lots of differences.
Example a flower at 12'' from the focal point in the camera (It is not the end of the lens, but a line on top of the body of the camera). You may need a 2.5 or 16, why?
At such distance the depth of field of 2.5, maybe about 1 inch or less.
The whole flower may not be in focus.
You may need a 16 aperture, but you do not want the background in focus.
Best open the LCD and see the best aperture and play with it.

As you can see the 3 items discussed here are interrelated.
Because the cameras today have an LCD, is best look at it and play with the settings.

Mike.