Photography is painting with light. It's all about the light. In order to capture an image with a camera, the film or sensor needs to be exposed so that just enough light is applied. For a given brightness, three things regulate this. They affect each other in the sense that when one changes, the others must change to keep the same exposure.

1. Aperture. This is a variable opening in the lens which is always open. It controls depth of field, which is the range that is in focus. Aperture setting is called F stop. Small F number, ie F 2.0, is big aperterure opening which is narrow depth of field. Large F number, ie F 16, is small aperture opening which is deep depth of field. As aperture becomes smaller, the space in focus increases before and past the focal point.
2. Shutter. This is an opening in the camera or lens which is fully closed, and opens for a prescribed amount of time to let light in. Generally, the shutter must be 1/60 of a second or faster in order to hand hold the camera. The shutter speed is also subject to the length of the lens, with telephoto lenses requiring faster speeds to hand hold.
3. ASA or ISO (Film or Sensor sensitivity) This is a setting on your digital or film camera, and prescribed by film speed if you are using a film camera. It is sensitivity to light. Lower number means less sensitive and finer detail. Higher number lets us shoot in less light or with faster shutter or smaller aperture, but grain or noise is introduced to the image.

Generally, we set the ISO so it is as low as possible while letting us get correct exposures by using a combination of aperture/shutter that will let us hand hold. Tripods enable much more latitude by enabling very slow shutter speeds.