- Shutter Speed -

This one is pretty basic, but important for understanding tips to come...

**Mechanics:**
Cameras capture an image by focusing light rays from the world on a sensing surface. This used to be film. Now its a high tech photosensitive surface. The shutter opens and closes, with adjustable speed, to allow light to reach the sensor for a carefully controlled amount of time.

**Notation:**
Shutter speeds are thought of in fractions of a second. A really fast shutter speed is 1/2000th of a second. In the camera settings this is often written 2000, leaving out the 1/.
- faster shutter speed = 1/250, 1/2000, etc
- slower shutter speed = 1/4, 1”, etc

**Using it:**
On your cameras there is a setting that Bill told you about for leaving everything automatic except the shutter speed. Use this when you want more control over the amount of time your sensor is open to the scene.

The slower the shutter speed, the more likely you are to get motion blur in the photograph. (Motion blur is caused by movement of what you're photographing and/or of the camera.) Sometimes you want this and sometimes you don't. With my best effort, the slowest shutter speed I can use without a tripod is 1/30 and maybe 1/20 when I have not had any caffeine. I can teach you how to hold the camera super still.

For photographing animals in the Galapagos you will probably want to be using fast shutter speeds, faster than say 1/400?. The reasons why people don't just always use fast shutter speeds is that this places limits on some of the other settings.

**Examples:**
1) A really slow shutter speed, ie leaving the shutter open for minutes on end, produced this photograph A (not mine).
2) Sometimes a slow shutter speed is good for emphasizing movement (See B)
3) A fast shutter speed catches stuff you may not otherwise see, like hair tossing C.

B Seville, Spain

C Perfume on Dresser