**Shutter Speed Project** 7-12-16

***Shutter speed will depend on amount of light where you are shooting.***

**Slow Shutter Speed:**

**Examples:**

* **1/8th second**
* **1/15th second**
* **1/25th second**

**Fast Shutter Speed:**

**Examples:**

* **1/1000th second**
* **1/1,250th second**
* **1/2,000th second**

** **

**Project:**

***Both photographs above were taken with the car and bird moving at the same speed.***

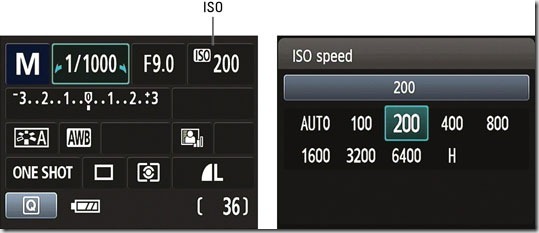
Moving objects (like the car above) can be photographed to look like they are moving in a blur using a Slow Shutter Speed like the photo on the right, or can be “frozen” using a Fast Shutter Speed like the photo on the left.

In this project, you will be using moving objects such as wind-up toys, matchbox cars, golf balls, tennis balls, etc.

Using a tripod, you will submit **two or more photographs of the same object**. The photographs will be taken with **two different shutter speeds** (See examples in the photographs above).

|  |  |
| --- | --- |
| **SET Your Camera to the following** | **When set make a**  **Macintosh HD:Users:kresch:Desktop:Screen Shot 2015-01-15 at 1.21.40 PM.png** |
| Lens: 18-55mm zoom |  |
| Lens: MF (manual focus) |  |
| Mode Dial: M (Manual Mode) |  |
| ISO: 100-6400 (You will need to change this based on  the available light) |  |
| Clean your lens |  |

**Setting Exposure**

**Setting Shutter Speed:** Use the Main Dial to change the Fraction in the upper LHC of the screen.

**Setting Aperture:** Hold down the AV button while turning the Main Dial (F Value).

**Setting ISO:** Press the ISO button and use the arrows to select the proper ISO, then press “Set”.

Notice the White Bar is at “0”

**Now it’s time to Photograph!**

1. Check all camera settings.
2. Securely attach your camera to the tripod and leave the strap around your neck.
3. Set up your scene and Point your camera at your object.
4. **Set your Shutter Speed** to one of the “Fast Shutter Speeds” listed above.

**4.** Set your Aperture to create a “Perfect Exposure”- White bar at “0”.

**5.** Manually Focus on the object BEFORE it is moving. Once you have

focused, then set the object moving and try your best to shoot the

object when it is in the spot where you focused. Also try to have both

photographs (fast and slow shutter speed) with the same scene.

6. Submit your photographs using the proper Submission procedure.

**Standards**  
TECH.8.1.8.D.CS2, TECH.8.1.8.B.CS2, TECH.8.1.8.C.CS1, TECH.8.1.8.B.CS1, SCI.MS-ETS1-4, TECH.8.1.8.D.CS1, , SCI.MS-ETS1-3, TECH.8.1.8.A.CS2, TECH.8.1.8.A.1, VPA.1.1.8.D.CS1, VPA.1.2.8.A.CS1, VPA.1.2.8.A.3, VPA.1.3.8.D.CS1, VPA.1.3.8.D.1, VPA.1.3.8.D.CS2, VPA.1.3.8.D.2, VPA.1.3.8.D.CS4, VPA.1.3.8.D.CS6, VPA.1.3.8.D.6, VPA.1.4.8.A.CS2, VPA.1.4.8.A.CS6, VPA.1.4.8.A.6, VPA.1.4.8.A.7, VPA.1.4.8.B.CS1, VPA.1.4.8.B.1, VPA.1.4.8.B.2, TECH.8.1.8.D.CS3, , SCI.MS-ETS1-2, TECH.8.1.8.A.CS1

ESSENTIAL QUESTION: How does shutter speed affect the quality of a photograph of moving objects?  
  
OBJECTIVES: Students will experiment with shutter speed while taking photographs of moving objects.

MATERIALS: Canon Rebel Student Kits, Tripods

ADAPTATIONS: Redirectives, verbal prompts, one on one instructions, repeated practice, peer instruction, small group instruction, self-paced, repeated demonstrations, adjust difficulties of lessons, Google Speak,

ASSESSMENT: Observation during student discussions, observation of individual progress during project creation, final project rubric, Google Classroom submission