Canon dSLR Quick Guide
*Reid's Default

EXPOSURE
- **Aperture**
  - SMALL f-stop
    - Shallow DoF
    - Can use a faster shutter speed
    - Portraits (f/2.8 – f5.6)
  - LARGE f-stop
    - Large DoF
    - Can use a slower shutter speed
    - Landscapes (f/8 – f/22)
    - Can suffer from diffraction
  - DoF Preview Button
    - Located near lens on the front of the camera
    - Allows you to check your DoF prior to shooting
  - LIGHT DOUBLING
    - f/1.4 - f/2 - f/2.8 - f/4 - f/5.6 - f/8 - f/11 - f/16 - f/22
- **Shutter Speed**
  - Fast freezes motion
    - Sports requires ~ 1/250th sec. or faster
  - Slow blurs motion
    - **Bulb** – Stays open until shutter is released
    - Startrails
  - LIGHT DOUBLING
    - Halve the shutter speed
- **ISO**
  - Low ISO (i.e. 100)
    - More detail and color saturation
    - Less noise
    - Requires slower shutter speed
    - Requires smaller f-stop
  - High ISO (i.e. 1600)
    - Less detail and color saturation
    - More noise
    - Can use faster shutter speed
    - Can use higher f-stop
  - LIGHT DOUBLING
    - Double the ISO

MODES
- **P** – Program
  - You choose: ISO
  - Camera chooses: Aperture & Shutter Speed
- **Tv** - Shutter Priority
  - You choose: ISO & Shutter Speed
  - Camera Chooses: Aperture
- **Av*** – Aperture Priority
  - You choose: ISO & Aperture
  - Camera Chooses: Shutter Speed
- **M** – Manual (second favorite)
  - You choose: Everything

METERING MODES (for **P**, **Tv** and **Av** modes)
- **Evaluative***
  - Camera uses the entire frame to decide exposure settings
- **Center-Weighted**
  - Camera uses only the center of the frame to decide exposure settings
- **Spot**
  - Camera uses one spot (you choose) to decide exposure settings
- **Partial**
  - Similar to Spot but samples a slightly larger area

AUTO FOCUS MODE
- **ONE SHOT***
  - Camera focuses only when shutter button is depressed halfway
- **AI SERVO**
  - Camera attempts to track the subject as it moves around the frame and constantly adjusts the focus
- **AI FOCUS**
  - Camera is allowed to automatically switch between **ONE SHOT** and **AI SERVO**

AUTO FOCUS POINTS
- Do not be afraid to use these, they can be a powerful and creative tool

WHITE BALANCE
- Use **AUTO*** if shooting RAW images
- Otherwise set according to light source or manually set with a white card (or white object)

STARTRAILS SET-UP
- Tools
  - Tripod
  - Lockable cable release
  - Memory Card with LOTS of available space
  - Fully charged battery
  - Patience
- Test Exposure
  - Wide open aperture (lowest f-stop number)
  - 30 sec. shutter speed
  - ISO 100
- Adjust ISO and aperture to get correct exposure
  - Underexposed? – Increase ISO
  - Overexposed? – Increase f-stop
- Once exposure is corrected
  - Change to continuous shooting mode
  - Turn OFF long-exposure noise reduction
  - Lock down cable release
  - 1 hour exposure = 120 exposures