Lesson 1 Rocketry vocabulary/concepts Sept. 8, 2018

* Model rocketry vs high-power rocketry
* Motor class (based on total impulse: “A” vs “B” vs etc., high-power starts with “H”)
* Motor thrust (Boost Phase)
* Burn-out (then Coast Phase)
* Apogee (peak of flight)
* Descent (under parachute)
* Parachute and shroud lines
* Drogue (small parachute – ejected at apogee)
* Main (larger parachute – ejected close to the ground) (dual deploy)
* Ejection charge (in particular, the built-in automatic (timed) “motor eject”)
* Altimeter Two or Three (data logger)
* “Real” Altimeter (can fire ejection charges for drogue and main parachutes)
* Av-bay (short for “avionics bay”)
* Nose-cone
* Airframe (body tube)
* Coupler tubing (to connect body tube sections – av-bay is inside a section of coupler tube)
* Eye-bolts
* Recovery harness (called a “shock cord” on model rockets)
* Quick-link
* Fins (rear)
* Canards (forward fins – our rockets won’t have these)
* Bulk-plate (all the way across the airframe)
* Centering ring (to keep things centered, such as the motor-mount tube)
* Thrust ring (model rocket)
* Motor-mount tube
* Gunpowder-based model rocket motor
* Ammonium perchlorate high-power rocket motors
* Nozzle
* Motor retention (keep motor secure against moving both up and down during all parts of flight, especially during boost (when it wants to shift forward) and during motor eject (when it wants to shift backward))
* Propellant grains
* High-power motor “reload”
* High-power motor case (required by some manufacturers, especially for Cesaroni motors)
* “Delay grain” (burns slowly till it reaches the motor eject)
* “Split rocket” (for education/exhibition – shows inside of rocket)
* Parachute protection
  + Use “rocket barf” (rather than paper wadding) for model rockets
  + Use flame-proof cloth for high-power rockets (will study piston protection too, later)
* Super glue (for model) vs two-component epoxy (for high-power rocket build)
* Strapping tape (AKA filament tape) – exceptionally strong