CAP Model Rocketry
Saturn Phase Notes

Model Rocketry Safety Code

- Developed and distributed by the National Association of Rocketry.

- Comprised of eleven sections, aims to encourage _____ and usage under conditions that keep _____ and _____ safe.

- Comprised of the following sections: Materials, _____, Ignition System, Misfires, Launch Safety, Launchers, Size, _____, Launch Site, Recovery System, Recovery Safety

2) Motors: I will use only certified, _____ rocket motors, and will not tamper with these motors or use them for any purposes except those recommended by the manufacturer

7) Size: My model rocket will not weigh more than 1500 grams (53 ounces) at liftoff and will not contain more than 125 grams (4.4 ounces) of propellant or 320N-sec (71.9 pound-seconds) of total impulse. If my model rocket weighs more than _____ (453 grams) at liftoff or has more than _____ (113grams) of propellant, I will check and comply with Federal Aviation Administration regulations before flying.

10) Recovery System: I will use a recovery system such as a streamer or _____ in my rocket so that it returns _____ and undamaged and can be _____, and I will use only _____ or _____ recovery system wadding in my rocket.

Altitude Tracking

- Altitude tracking is the first of two parts of _____ that will help to study rocket behavior and improve from rocket to rocket.

- Altitude is measured from the highest point of a rocket's flight, known as the _____.

- Using basic _____ and an altitude tracker, the height of a rocket's flight can be found easily.

- By standing a _____ from the launch pad, and measuring an angle between the _____ and the rocket's apogee, the altitude of the rocket can be calculated.

- Mathematically, this can be expressed as:

Engine Performance

_____

- A commercially made model rocket engine is made up of the following parts:
    - _____
    - _____ for liftoff and acceleration
    - _____ and _____chemical
    - _____
    - _____
    - _____

- When the solid fuel is ignited, the resulting _____ causes it to burn and be pushed out the nozzle, pushing the rocket _____.

- The rocket's _____ and _____ are determined, in large part, by the amount of chemical _____ in the motor and the _____ of the burn.

- The thrust of the rocket can be expressed in units called _____. This is a product of the amount of force (Newtons) over a given time period (seconds).

- Codes printed on the motor provide info on how much power it can be expected to give.

- A8-3, B6-4, C6-7, etc., are all established engine codes. Each number and letter defines a _____of the engine's _____.

- The first letter denotes the engine's_____ or _____. The farther along in the alphabet, the more power the engine has. This value is measured in Newton-seconds.

- The _____ denotes the engine's _____. This value is measured in Newtons.

- The number _____ denotes the _____ between the end of the rocket's propellant burn and the ejection charge ignition. This value is measured in seconds. Engine with a "____" after the dash are _____ and have no time delay.