

(Instructor Required)

- 1. Know and explain the Model Rocketry Safety Code.
- 2. Know and explain the importance of the basic model rocket components.
- **3.** Draw the following:
 - **a.** The steps in the flight of a model rocket
 - **b.** A cut-a-way view of a model rocket engine, labeling each part
 - c. A schematic plan for a simple launch system using proper electrical symbols
- **4.** Define the following:

a.	Wadding	f.	Center of gravity
b.	Boost gliders	g.	Center of pressure
c.	Stall	ĥ.	Impulse
d.	Payload	i.	Velocity
e.	Apogee	j.	Ejection

- 5. Name and describe at least four different recovery systems.
- 6. From a kit, build, finish, and paint a single-stage rocket that has a minimum length of six inches with a recovery system, such as a parachute or streamer. Successfully launch and recover the rocket with the recovery system deploying properly.

Skill Level 1

Original Honor 1970

Model Rocketry, Advanced

(Instructor Required)

- 1. Have the Model Rocketry Honor.
- 2. From a kit, build, successfully launch, and recover a boost glider.
- **3.** Design, build (not from a kit), finish, and paint a single-stage rocket. Check for stability, and successfully launch and recover this rocket.
- 4. Do one of the following:
 - **a.** From a kit build, finish, and paint a two-stage rocket. Successfully launch and recover this rocket.
 - **b.** From a kit, build, finish, and paint a three-engine clustered single-stage rocket. Successfully launch and recover this rocket.
- 5. Design an electrical launch system. When this has been approved by your instructor, build this system and use it to launch rockets at least five times.
- 6. Describe and demonstrate single station altitude tracking. With the aid of a helper, track the same rocket three times using three different sizes of engines and compare altitudes with an altitude finder.
- 7. Compare the velocity and altitude of two different weights of rockets using the same size engine.

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Skill Level 2

Original Honor 1970