

## Town of Cary Model Rocket Usage Guidelines

The Town of Cary permits the launch of model rockets under the following conditions:

1. Model rockets are only to be launched as part of designated Rocket Day at Bond Park events.
2. Model rockets may only be launched from the Bond Park spillway or one of the ball fields as determined by the above Town of Cary representative.
3. Model rocket launches must follow the National Association of Rocketry (NAR) Model Rocket Safety Code and the additional guidelines listed below.

### NAR Model Rocket Safety Code

1. **Materials.** I will use only lightweight, non-metal parts for the nose, body, and fins of my rocket.
2. **Motors.** I will use only certified, commercially-made model rocket motors, and will not tamper with these motors or use them for any purposes except those recommended by the manufacturer.
3. **Ignition System.** I will launch my rockets with an electrical launch system and electrical motor igniters. My launch system will have a safety interlock in series with the launch switch, and will use a launch switch that returns to the "off" position when released.
4. **Misfires.** If my rocket does not launch when I press the button of my electrical launch system, I will remove the launcher's safety interlock or disconnect its battery, and will wait 60 seconds after the last launch attempt before allowing anyone to approach the rocket.
5. **Launch Safety.** I will use a countdown before launch, and will ensure that everyone is paying attention and is a safe distance of at least 15 feet away when I launch rockets with D motors or smaller. ***D motors are the largest allowed by the Town of Cary in order to maintain proper launch site dimensions.*** If I am uncertain about the safety or stability of an untested rocket, I will check the stability before flight and will fly it only after warning spectators and clearing them away to a safe distance.
6. **Launcher.** I will launch my rocket from a launch rod, tower, or rail that is pointed to within 30 degrees of the vertical to ensure that the rocket flies nearly straight up, and I will use a blast deflector to prevent the motor's exhaust from hitting the ground. To prevent accidental eye injury, I will place launchers so that the end of the launch rod is above eye level or will cap the end of the rod when it is not in use.
7. **Size.** My model rocket will not weigh more than one pound (453 grams/16 ounces) at liftoff and will not contain more than four ounces (113 grams) of propellant or 320 N-sec (71.9 pound-seconds) of total impulse. ***Model rockets weighing more than one pound (453 grams/16 ounces) and/or containing more than four ounces (113 grams) of propellant are not allowed by the Town of Cary.***
8. **Flight Safety.** I will not launch my rocket at targets, into clouds, or near airplanes, and will not put any flammable or explosive payload in my rocket.
9. **Launch Site.** I will launch my rocket outdoors, in an open area at least as large as shown in the accompanying table, and in safe weather conditions with wind speeds no greater than 20 miles per hour. I will ensure that there is no dry grass

close to the launch pad, and that the launch site does not present risk of grass fires.

10. **Recovery System.** I will use a recovery system such as a streamer or parachute in my rocket so that it returns safely and undamaged and can be flown again, and I will use only flame-resistant or fireproof recovery system wadding in my rocket.
11. **Recovery Safety.** I will not attempt to recover my rocket from power lines, tall trees, or other dangerous places.
12. **The Town of Cary requires a fire extinguisher, cell phone and first aid kit present during launches.**

LAUNCH SITE DIMENSIONS		
Installed Total Impulse (N-sec)	Equivalent Motor Type	Minimum Site Dimensions (ft.)
0.00--1.25	1/4A, 1/2A	50
1.26--2.50	A	100
2.51--5.00	B	200
5.01--10.00	C	400
10.01--20.00	D	500
20.01--40.00	E	1,000
40.01--80.00	F	1,000
80.01--160.00	G	1,000
160.01--320.00	Two Gs	1,500

Group Name: Rocket Day at Bond Park Launch Date: \_\_\_\_\_

### **WAIVER:**

I, for myself or as parent or guardian, hereby assume all the risks and hazards incidental to the conduct of the activities and transportation to and from the activities. I release, absolve, and indemnify the Town of Cary, employees of the Town, volunteers, contractors and/or sponsors from all the risks and hazards associated with the activities and in the event of injury, do expressly waive all claims against them. I understand that no insurance coverage is provided by the Town of Cary Parks, Recreation and Cultural Resources Department.

Participant Name (Printed): \_\_\_\_\_ DOB: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

(Parent/Guardian Signature if under 18 years of age)

Parent/Guardian Name (Printed): \_\_\_\_\_