



4-H Model Rocketry

Class _____

| | | <u>Points Possible</u> | <u>Points Talk</u> |
|----|--|------------------------------|--------------------|
| A. | Flight capability | | |
| | Recovery system (parachute or streamer packed correctly, shock cord firmly attached) | 10 points | _____ |
| | Launch lugs (straight, alignment) | 3 points | _____ |
| | Fin assembly (spacing, alignment) | 15 points | _____ |
| | Engine assembly (firmly mounted) | 2 points | _____ |
| | TOTAL | 30 POINTS | |
| B. | Workmanship | | |
| | Sanding and sealing | 8 points | _____ |
| | Gluing (proper filler on fins and lugs) | 10 points | _____ |
| | Painting | 8 points | _____ |
| | Decals, pin striping, detailing, etc. | 4 points | _____ |
| | TOTAL | 30 POINTS | |
| C. | Rocket Appearance & Difficulty (multiple stages or other considerations) | | |
| | Artistic Value | | |
| | 0-2 Poor | | |
| | 3-5 Fair | | |
| | 6-8 Good | | |
| | 9-10 Excellent | | |
| | Note: Display stands are not required. If provided, it is not to be evaluated. | 10 points | _____ |
| D. | Degree of difficulty (based upon skill level) Should commensurate with years of experience - points <u>to be subtracted</u> at judge's discretion - up to 5 points | * Subtract 0-5 points | _____ |
| E. | Statement | | |
| | Flight characteristics (minimum of 1 launch) | 10 points | _____ |
| | Number of launching | | |
| | 1 st - - 5 points | 8 points | _____ |
| | 2 nd - - 2 points | | |
| | 3 rd - - 1 point | | |
| | TOTAL | 28 POINTS | |
| F. | Questions about model rocket construction, stability and flight performance, engines, launch safety, and recovery. | | |
| | TOTAL | 12 POINTS | |
| | FINAL TOTAL | (100 points possible) | |

RIBBON _____

ROCKET LAUNCHING COMPETITION

Class _____

Name _____ Club _____

| | | <u>1st</u> | <u>2nd</u> | <u>3rd</u> |
|-----|--|------------|------------|------------|
| A. | Safety Procedures & Site maintenance (20 points) | | | |
| 1. | Launch rod covered before (1 point) | _____ | _____ | _____ |
| | Launch rod covered after (1 point) | _____ | _____ | _____ |
| 2. | Proper preparation of rocket for launch | | | |
| | a. wadding (fire resistant) (1 point) | _____ | _____ | _____ |
| | b. talcum (1 point) | _____ | _____ | _____ |
| | c. parachute & shroud line or streamer (1 point) | _____ | _____ | _____ |
| | d. packing (not too tight) (1 point) | _____ | _____ | _____ |
| 3. | Proper use of igniters (2 points) | _____ | _____ | _____ |
| 4. | Proper use of ignition devices ? | _____ | _____ | _____ |
| 5. | Check around & overhead for aircraft balloons, etc. (2 points) | _____ | _____ | _____ |
| 6. | Proper launch angle (not too shallow) 45° (2 points) | _____ | _____ | _____ |
| 7. | Stand stability (2 points) | _____ | _____ | _____ |
| 8. | Countdown (clear yell) (2 points) | _____ | _____ | _____ |
| 9. | How to approach in case of igniter misfire (2 points) | _____ | _____ | _____ |
| 10. | Clean up | | | |
| | a. wadding (1 point) | _____ | _____ | _____ |
| | b. igniters (1 point) | _____ | _____ | _____ |
| | Total points | | _____ | _____ |
| B. | Recording Flight Data (20 points) | _____ | _____ | _____ |
| C. | Recovery within 5 feet of launch site (10 points per launch) | _____ | _____ | _____ |
| | Recovery within 30 feet of launch site (7 points per launch) | _____ | _____ | _____ |
| | Recovery within 45 feet of launch site (5 points per launch) | _____ | _____ | _____ |
| | Recovery within 60 feet of launch site (4 points per launch) | _____ | _____ | _____ |
| | Recovery within 75 feet of launch site (3 points per launch) | _____ | _____ | _____ |
| | Recovery within 90 feet of launch site (2 points per launch) | _____ | _____ | _____ |
| | Recovery within 105 feet of launch site (1 point per launch) | _____ | _____ | _____ |
| | Three launches | | | |
| | A engine = 1 time recovery points | | | |
| | B engine = 2 times recovery points | | | |
| | C engine = 3 times recovery points | | | |

Launch Record

Launch

| Flight Number | 1 | 2 | 3 |
|--------------------------------|---|---|---|
| Date of Launch | | | |
| Launch Location | | | |
| Payload: Description/Weight | | | |
| Recovery System: Type/Color | | | |
| Engines (No.,Type): | | | |
| Total Weight | | | |
| Method of Launch | | | |
| Launch Angle | | | |
| Remarks | | | |

Weather

| | | | |
|----------------|--|--|--|
| Wind Direction | | | |
| Wind Velocity | | | |
| Humidity | | | |
| Temperature | | | |
| Visibility | | | |
| Remarks | | | |
| | | | |

Flight Data

| | | | |
|-----------------------|--|--|--|
| Estimated altitude | | | |
| Tracking information | | | |
| Flight Duration | | | |
| Stability Information | | | |
| Flight Performance | | | |
| | | | |

_____ check for additional comments listed on back