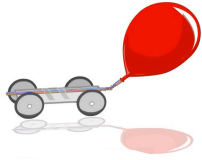


Name \_\_\_\_\_ Date \_\_\_\_\_ Period \_\_\_\_\_



### **BALLOON ROCKETS**

**OBJECTIVE:** Test one of two variables that may or may not affect a balloon rocket's speed.

**QUESTION:** What affects a balloon rocket's speed?

**HYPOTHESIS:** (Use an if, then statement or I think, because statement)

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### **MATERIALS:**

- Balloon
- String/fishing line
- Scissors
- Tape
- A straw

**NOTE:** With your team, choose ONE of the following INDEPENDENT variables to test.  
*Balloon Size OR Type of String.*

### **PROCEDURE:**

1. Identify Variables:

INDEPENDENT VARIABLES: \_\_\_\_\_

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DEPENDENT VARIABLES: \_\_\_\_\_

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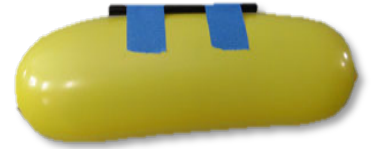
CONTROLLED VARIABLES: \_\_\_\_\_

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2. Blow up the balloon and clamp it shut with the clothespin.

3. Thread the string through the drinking straw. Tape the long side of the balloon along the length of the straw.
4. Have two people hold the ends of the string. Make sure the string is stretched tight.
5. Slide the balloon-straw system down the string until the clamped end reaches the end of the string held by a person.
6. Release the clothespin. Record your observations for Variable 1.
7. Blow up the balloon and repeat steps 5 and 6 and record your observations.
8. Then change the variable (string or balloon). Repeat trial 5 times. Record your observations.
9. Change the variable the final time. (Repeat trial 5 times). Record your observations.



**OBSERVATIONS:**

VARIABLE 1: \_\_\_\_\_

TRIAL	DISTANCE TRAVELED IN METERS	TIME IN SECONDS (to the nearest .10)	AVERAGE SPEED
1			
2			
3			
4			
5			
AVERAGE			

VARIABLE 2: \_\_\_\_\_

TRIAL	DISTANCE TRAVELED IN METERS	TIME IN SECONDS (to the nearest .10)	AVERAGE SPEED
1			
2			
3			
4			
5			
AVERAGE			

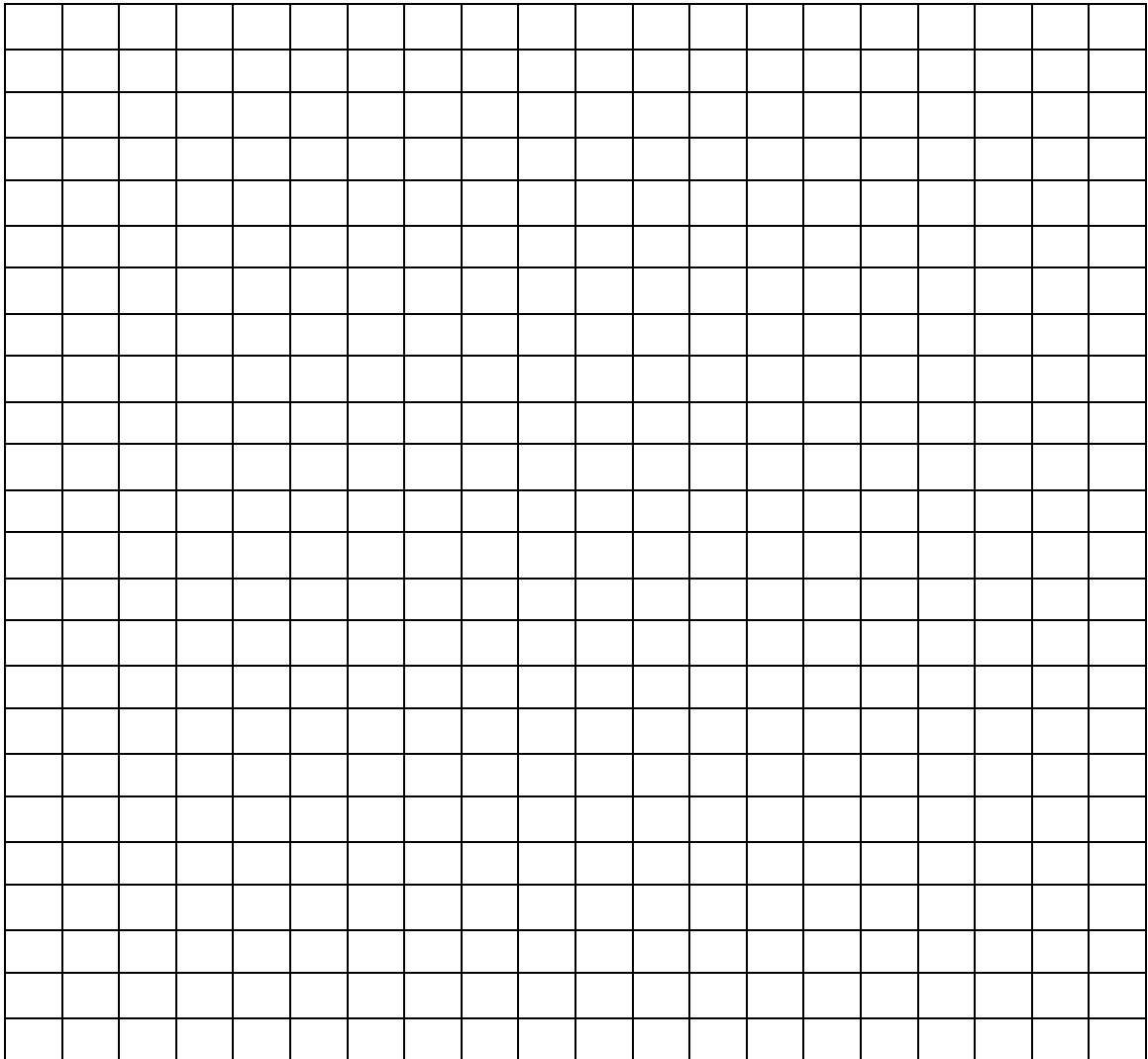
VARIABLE 3: \_\_\_\_\_

TRIAL	DISTANCE TRAVELED IN METERS	TIME IN SECONDS (to the nearest .10)	AVERAGE SPEED
1			
2			
3			
4			
5			
AVERAGE			

**ANALYSIS AND CONCLUSIONS:**

Plot your observations on the graph below.

**Time: Seconds**



**Distance Traveled in Meters**