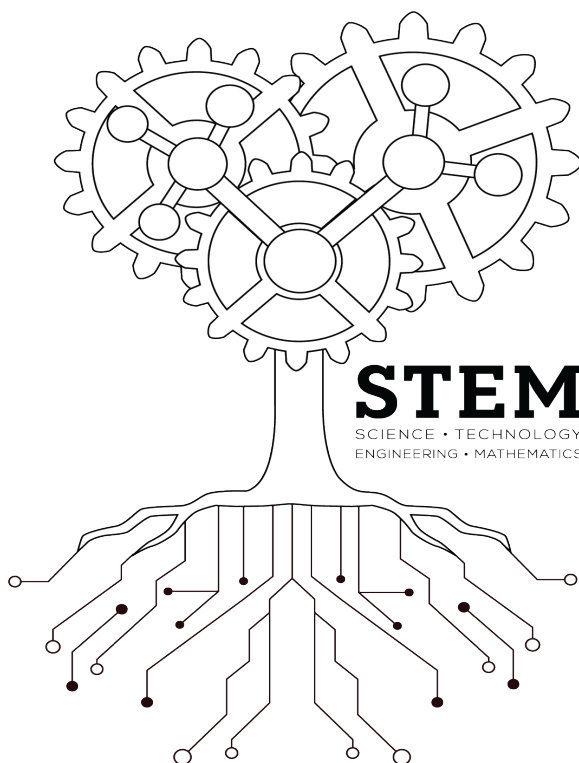




# Elementary STEM Fair

## Science, Technology, Engineering, and Mathematics

*Providing an opportunity for students to utilize science knowledge and skills as scientists do in the real world*



### Research Plan and Investigation Report Forms

Student Name: \_\_\_\_\_

Teacher: \_\_\_\_\_

School: \_\_\_\_\_

## Part 1: Designing the Experiment

What I am wondering about (my beginning question):

---

I am wondering

---

---

---

---

**Draw a picture of your problem you are trying to solve or question you are trying to answer:**

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# Brainstorming Ideas Related to my Beginning Question

## Part A: Things I could change or vary:



## Part B: Things I could measure or observe:



# Identifying Variables

I will change:

I will measure or observe:

Place sticky note from Part A here

Place sticky note from Part B here

**I will not change (I will keep these the same so my test is fair):**

Place sticky note from Part A here

Place sticky note from Part A here

Place sticky note from Part A here

**I will not measure or observe:**

Place sticky note from Part B here

Place sticky note from Part B here

Place sticky note from Part B here

## Asking a Testable Question (Refining my beginning Wondering)

When I change \_\_\_\_\_, the \_\_\_\_\_ will change.

I will be measuring and observing \_\_\_\_\_.

<p>What I will change</p>
---------------------------

<p>What I will measure or observe</p>
---------------------------------------

What do you already know about this problem or question?

<p>I already know that</p>

# Asking a Testable Question (Refining my beginning Wondering)

## Predictions

(Note: List 3 possible outcomes: *Increase, Decrease, and No Affect.*)

I predict that ...

## My Question

Write the question that you are trying to answer.

I am trying to find out if...

# Research

*List the information you collected during your research:*

---

---

---

---

*Sources:*

Books:

---

Internet:

---

People:

---

# Hypothesis

## Cause and Effect

What do you think will happen or how will you solve your problem?

If I

,

then

because

Draw a picture

**Cause**

**Effect**



# Materials List

Item	How many do I need?	How much does each item cost?	What is the sum for ____ items?

Picture of item	How did I find the total cost for the items?



I will conduct \_\_\_\_\_ trials.

I will measure \_\_\_\_\_ . (ex: height)

I will change \_\_\_\_\_ . (ex: amount of light)

How I will record the data (for example: table, chart, picture):

5				
4				
3				
2				
1				

What I'm measuring


What I changed

What I'm measuring


What I changed

What I'm measuring

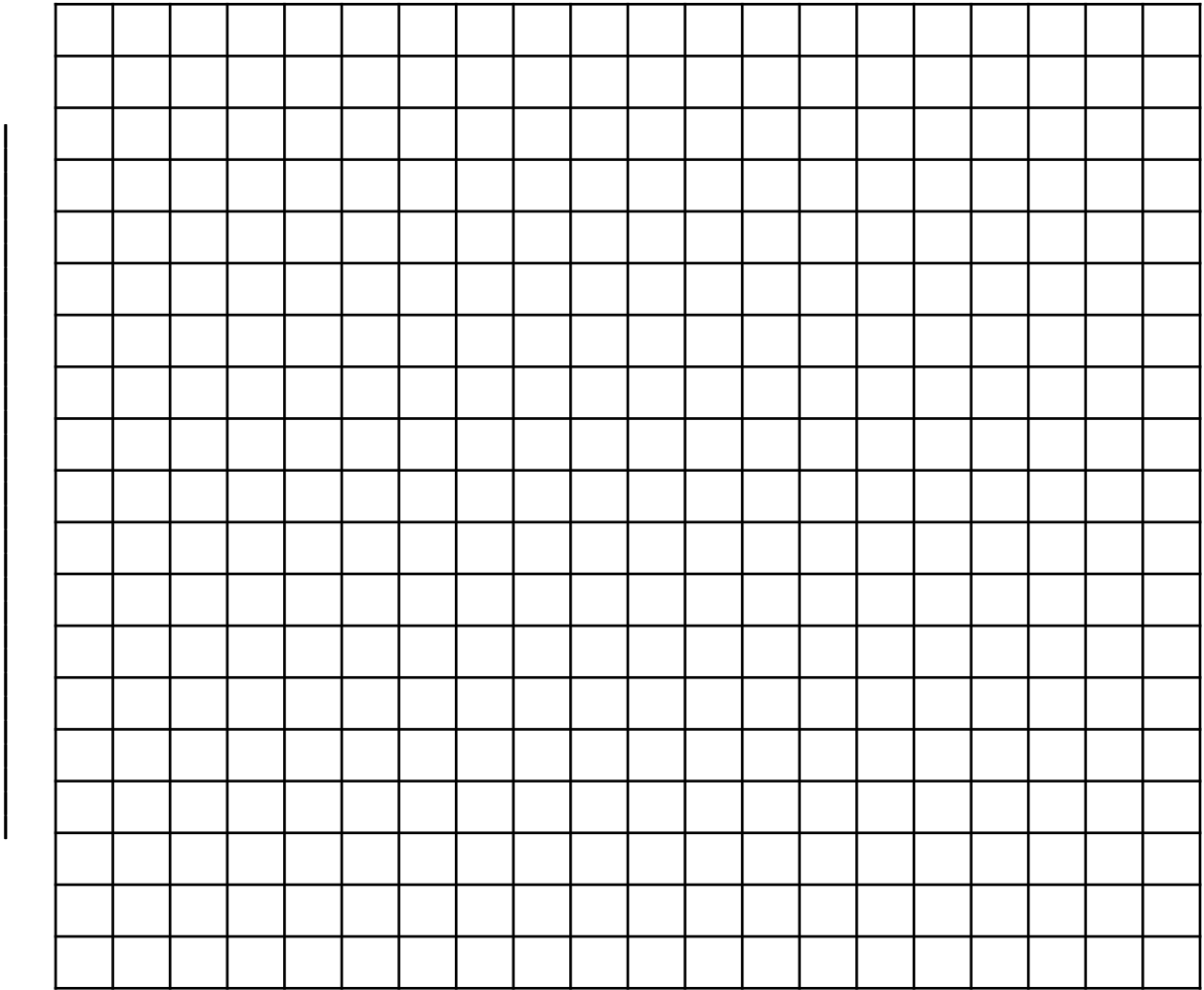

What I changed

What I'm measuring


What I changed



Title of Graph: \_\_\_\_\_



When I changed \_\_\_\_\_, what happened to \_\_\_\_\_?

What I changed  
(independent variable)

What I measured or  
observed  
(dependent variable)

## Results/Explanation

**Summarize what you discovered from this experiment. Include:**

✓ **Patterns I notice in my graph are**


✓ **From my investigation I learned**


✓ **This investigation can help us in real life by**
