





## Science Fair Project Rubric

Due: \_\_\_\_\_

Name(s): \_\_\_\_\_ Topic: \_\_\_\_\_

<b>Science Fair Poster</b>		
<b>Project Title</b>	Title and student name are clearly displayed	____/5
<b>Question/Purpose</b> 	<ul style="list-style-type: none"> <li>• What do you want to find out?</li> <li>• What problem will you solve?</li> </ul>	____/10
<b>Hypothesis</b>	What do you think will happen? Make an educated guess about your question. <i>"I predict... because..."</i>	____/10
<b>Materials</b>	What will you need to complete the experiment?	____/5
 <b>Experiment</b>	Step-by-step procedure you followed to complete the experiment. <ul style="list-style-type: none"> <li>• At least 5 clear steps in the experiment</li> <li>• At least 3 pictures showing the main steps in your experiment</li> </ul>	____/20
 <b>Data and Graphics</b>	Show your data and pictures from your experiment. <ul style="list-style-type: none"> <li>• What did you observe?</li> <li>• What data did you collect?</li> <li>• At least 1 chart, graph, or picture to display results</li> </ul>	____/10
 <b>Results</b>	<ul style="list-style-type: none"> <li>• What did you learn from your work?</li> <li>• Explain your data.</li> </ul>	____/10
<b>Conclusion</b>	<ul style="list-style-type: none"> <li>• Was your hypothesis right or wrong?</li> <li>• How do you know?</li> </ul>	____/10
<b>Evaluation</b>	<ul style="list-style-type: none"> <li>• What went well?</li> <li>• What would you change if you did the experiment again?</li> </ul>	____/10
<b>Grammar/ Mechanics</b>	<ul style="list-style-type: none"> <li>• There are no grammatical or mechanical errors.</li> <li>• Writing is easy to understand.</li> </ul>	____/10
<b>Total:</b>		<b>____/100</b>

<b>Science Fair Oral Report</b>		
<b>Nonverbal skills:</b>		
Eye Contact	Student makes eye contact with the audience frequently. Does not stare at the poster or paper for more than 3 seconds at a time.	___/5
Body Language	Students use their body language to help communicate their ideas and presentation to the audience. Ex: Arms are not folded, presenter faces the audience	___/5
<b>Verbal Skills:</b>		
Enthusiasm	Student seems to enjoy speaking about their topic. They demonstrate a positive feeling towards their topic.	___/5
Elocution	Voice is clear, easy to understand. Student does not mumble. Voice is loud enough for the whole audience to hear.	___/5
<b>Content:</b>		
Knowledge of topic	Oral presentation shows the student is knowledgeable about the topic	___/5
Organization	Presents information in a logical way that is easy to follow and understand.	___/5
<b>Total</b>		<b>___/30</b>

## Ideas for Science Fair Posters



### Problem/ Purpose

State the problem you meant to solve.

### Project Title

by  
Your Name

### Results

What did you learn from your work? Explain your data.

### Hypothesis

State your hypothesis.

### Data & Graphics



Display your data and pictures in this area.

Graphics are very effective for explaining results.

### Conclusions

Was your hypothesis right or wrong? Can you make a new one?

### Procedures

Explain the experiments you did. What? How? Why?

### Recommendations

From what you learned, would you try anything new?

## Purpose

To determine if temperature affects how long bubbles last before they pop.

## Hypothesis

Bubble lifespan is not affected by temperature.

## Materials

Identical clear jars  
Bubble solution  
Measuring spoons  
Thermometer  
Stopwatch

## Procedure

1. Use your thermometer to find locations that are different temperatures from each other.
2. Label each jar with the temperature of the location it will be placed.
3. Add identical amounts of bubble solution to each jar.
4. Place the jars at the different temperatures.
5. Wait 15 minutes for the temperature to equalize.
6. Shake each jar and record the time it takes for the bubbles to all pop.
7. Repeat three times.

# Bubble Life and Temperature

Cy N Student  
Sometown Middle School

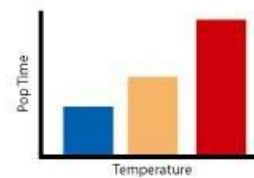


## Data

Temperature	40°	75°	120°
Time to Pop			
Trial 1	50	36	22
Trial 2	55	32	17
Trial 3	60	28	21
Average	55	32	20

## Results

Pop Time vs Temperature



## References

Bubble Life & Temperature  
Anne Helmenstine  
About Chemistry  
<http://chemistry.about.com>

## Conclusions

Bubble lifespan is affected by temperature. Data indicates cold bubbles pop faster than warmer bubbles.

# Blooming Algae!

**Question:** How does fertilizer affect algae?

**Hypothesis:** The more fertilizer there is, the more the algae will grow.

**Background Research:** Eutrophication is caused by Algae bloom. This happens when nitrates and phosphorus cause the algae over-growth. The bacteria eat the dead algae and use up all the oxygen. This kills the aquatic life.

**Materials:** 4 80oz. jars(2.37 liter)  
Fertilizer  
Water from pond  
Measuring cup  
Aluminum foil

**Procedure:**

1. Fill each jar with water.
2. Measure and add 10ml. of fertilizer to one jar and 25ml. to another jar.
3. Add 10ml. of fertilizer to a third jar and cover with aluminum foil.
4. Add nothing to the fourth jar. This is control.
5. Label each jar and place on a sunny window sill.

**Results:** The jar with 10ml. grew good, but not the best. The jar with none did not grow. The jar with 25ml. grew the best. The jar with 10ml. and the foil cover did not grow very well.

**Conclusion:** Farm run-off definitely has a negative affect on ponds. The algae pollute the water. This eutrophication destroys the aquatic life.

**After 75 Days**

25 ml. 10 ml. control 12 ml. with foil cover (algae control)

*I can't breathe... too much algae...*