



Grades 4-8 Science Fair Forms Packet 2024 - 2025

These forms include checklists and assignment forms to be turned into Science teachers for a grade.

You may handwrite or type this information if you are unable to print these forms

Assignment #1

Problem Statement

Select a topic that can be answered only by experimenting. Write your topic as a question to be investigated.

Example: "Which brand of paper towels is the most absorbent?"

Student Name

Teacher Name

My Problem/Statement

Hypothesis

A hypothesis states what you think is going to happen when you investigate a question.

Example: "If Brawny, Viva, and Bounty paper towels are tested for their absorbency, then Bounty paper towels will be the most absorbent."

Return this form to teacher by Tuesday, September 24, 2024**

Assignment #2

Materials

List all the materials used in your investigation. Include specific details such as size and quantity. Remember to use only metric units.

Good Example: Poor Example:

- 1. 3 – 15x15 cm. sheets of each paper 1. Paper Towels
Towel: Brawny, Viva, and Bounty.
- 2. Measuring Cup
- 2. 1 20x20 cm. square cake pan 3. Water
- 3. 750 ml water, 20° Celsius 4. Container
- 4. Celsius thermometer 5. Thermometer
- 5. Clock with a second hand 6. Clock

My Materials:

Assignment #2 Continued

Procedures

List your step-by-step directions like a recipe. Anyone who reads them should be able to duplicate your investigation. **DO NOT** write what you did (avoid words such as "I" and "me").

Example:

1. Cut 3 – 15x15 cm. Sq. from each brand of paper towels.
2. Label each cut piece with a brand name.
3. Pour 50 ml. of 20° Celsius water into 20x20 cm. sq. pan
4. Place 1 square of generic brand paper towel into the water and pan 5.
Leave for 30 seconds
6. Remove paper towel
7. Measure water remaining in pan and record
8. Dry the cake pan
9. Repeat steps 4 through 8 for each brand of paper towel
10. Repeat entire process twice more for each brand of paper towel

My Procedures (*use extra paper if needed*):

*****Return this form to your teacher by Tuesday, October 8, 2024*****

Assignment #3

Data

Data refers to information gathered during your investigation. Writing in a spiral notebook is the most convenient way to keep a log.

***Your log should include:**

1. A list of all materials you use.
2. Notes on the preparations you made prior to starting your investigation.
3. Information about the resources you use (books, people, library, museum, universities, etc.)
4. Detailed day-by-day notes on the progress of your project.
 - a. What you are actually doing
 - b. Problems you have with your investigation
 - c. Things you would change if you were doing this investigation again.
5. Any drawings that you feel might help explain your work.
6. Data that you gather from your investigation (notes, table, charts, graphs). Be sure that you date each entry in your log.

Assignment #3 Continued

Results

Write the results of the experiment based on the information you have observed.

Example: A sheet of Viva paper towel absorbed an average of 50 ml of water. A sheet of Suave paper towel absorbed an average of 36 ml of water.

Conclusion

Before you write your conclusion, carefully examine all your data (graphs, charts, tables).

Ask yourself these questions:

1. Did you get the results you expected to get? If not-how were the results different? 2. Were there any unexpected problems or occurrences that may have affected the results of your investigation?
3. Do you think you collected sufficient data? (Were there enough trials? Samples?) 4. Do I need to revise my original hypothesis? (If you write a revised hypothesis, **DO NOT** use it to replace your original hypothesis for this project!)

Your conclusion should include:

1. Statement of support or non-support of the original hypothesis.
2. Description of any problems or unusual events that occurred during your investigation. 3. What you would do differently next time.
4. Revised hypothesis (if data did not support original hypothesis)

****Return this form to your teacher by Tuesday, October 22, 2024****

My Results

My Conclusion

*****Return this form to your teacher by Tuesday, October 22, 2024*****

Assignment #4

Written Report
This includes the topic,
hypothesis, data, results and
Conclusion

My Written Report

My Written Report (*Continued*)

*****Return this form to your teacher by Tuesday, October 24, 2023*****

Research/Resources

**See Resource Pages **

Once you have chosen your topic, it is important to research the written materials on your subject. By finding out as much information about the subject, you will gain a better understanding of your problem.

4th - 6th grade students need at least 4 sources;

7th - 8th grade students need at least 5 sources.

1. Read books, websites and articles on your subject. Make sure this information is up to date (not older than 5-10 years).
2. Interview and talk with people who are knowledgeable about your subject.

***This section is not included on your Display Board.**

Bibliography

Make a list of all the books, magazines, internet articles, interviews, or other sources that were used. *Write our bibliography using the following format:

Books

Format:

Author's last name, first name. *Book title*. Additional information. City of publication: Publishing company, publication date.

Example:

Allen, Thomas B. *Vanishing Wildlife of North America*. Washington, D.C.: National Geographic Society, 1974.

Website or Webpage

Format:

Author's last name, first name (if available). "Title of work within a project or database." *Title of site, project, or database*. Editor (if available). Electronic publication information (Date of publication or of the latest update, and name of any sponsoring institution or organization). Date of access and <full URL>.

Note: If you cannot find some of this information, cite what is available. **Examples:**

Devitt, Terry. "Lightning injures four at music festival." *The Why? Files*. 2 Aug. 2001. 23 Jan. 2002

<<http://whyfiles.org/137lightning/index.html>>.

****Return the following Resource pages to your teacher by Tuesday, October 22, 2024****

Assignment #4 Continued

Resource Pages

Resource #1

4th - 6th grade students need at least 4 sources;

7th - 8th grade students need at least 5 sources.

Resource:

Type of Resource:

Website: <http://>

Author:

Title:

Publishing Company:

Location of the Publishing Company:

Date of Publication:

Information found in your own words:

(Must be at least one paragraph summary.)

Resource Pages

Resource #2

**4th - 6th grade students need at least 4 sources;
7th - 8th grade students need at least 5 sources.**

Resource:

Type of Resource:

Website: <http://>

Author:

Title:

Publishing Company:

Location of the Publishing Company:

Date of Publication:

Information found in your own words:

(Must be at least one paragraph summary.)

Resource Pages

Resource #3

**4th - 6th grade students need at least 4 sources;
7th - 8th grade students need at least 5 sources.**

Resource:

Type of Resource:

Website: <http://>

Author:

Title:

Publishing Company:

Location of the Publishing Company:

Date of Publication:

Information found in your own words:

(Must be at least one paragraph summary.)

Resource Pages

Resource #4

**4th - 6th grade students need at least 4 sources;
7th - 8th grade students need at least 5 sources.**

Resource:

Type of Resource:

Website: <http://>

Author:

Title:

Publishing Company:

Location of the Publishing Company:

Date of Publication:

Information found in your own words:

(Must be at least one paragraph summary.)

Resource Pages

Resource #5

**4th - 6th grade students need at least 4 sources;
7th - 8th grade students need at least 5 sources.**

Resource:

Type of Resource:

Website: <http://>

Author:

Title:

Publishing Company:

Location of the Publishing Company:

Date of Publication:

Information found in your own words:

(Must be at least one paragraph summary.)

*ASSIGNMENT 5 COMPLETED SCIENCE FAIR EXPERIMENT/PROJECT DUE, November 11, 2024

WRITTEN REPORT RUBRIC

| | Exceeds Expectations 10 Points | Adequate 8 Points | Needs Improvement 6 Points | Inadequate 4 Points |
|---------------------------------|---|--|---|---|
| Title Page | *Exceeds Expectations | *Neatly includes name, grade, title *Messy, Illegible *Correct spelling *Misspelled words *Legible | *Missing item(s) *Correct spelling *Legible | *Handwritten or missing information *Missing item(s) *Messy, Illegible *Misspelled words |
| Table of Contents | *Exceeds Expectations | *Neatly lists all sections with correct page numbers *Messy, Illegible *Correct spelling *Misspelled words *Legible | *Lists sections with correct page numbers (1-2) *Correct spelling *Legible | *No page numbers *Missing section(s) *Messy, Illegible *Misspelled words |
| Introduction and Purpose | *Exceeds Expectations *Uses attention-getting statements *Clearly states why topic was chosen and why interested *On a separate page alone *Correct spelling *Legible | *Clearly states why topic was chosen and why interested not on a separate page *Somewhat states why topic was chosen, or why interested on a separate page *Messy, Illegible *Misspelled words *Correct spelling *Incorrect grammar *Legible | *Somewhat states why topic was chosen, or why interested on a separate page *On a separate page alone *Messy, Illegible *Misspelled words *Correct spelling *Legible | *Unclear statement *Not on separate page *Messy, Illegible *Misspelled words *Incorrect grammar |
| Posing Question | *Exceeds Expectations *Stated the problem in question form: How does affect ? How will affect ? *Correct spelling | *State the problem *Stated the question *Correct spelling using incorrect form *Variables are present, are incorrect or incomplete *Misspelled words *Incorrect grammar | *Stated the question *Correct spelling using incorrect form *Variables are present, are incorrect or incomplete *Misspelled words *Incorrect grammar | *Not titled *Incorrect question or doesn't use correct format *Not clearly stated *Messy, Illegible *Misspelled words *Incorrect grammar |
| Hypothesis | *Exceeds Expectations *Easy to understand *Statement shows extensive thought and planning by the student *Answers the question in a complete sentence *Is an educated guess *Correct Spelling *Legible | *Answers the question in a complete sentence *Applies directly to the question *Correct grammar *Legible *Misspelled words *Incorrect grammar | *Answers the question in a complete sentence *Does not apply to the question *Correct grammar *Messy, Illegible *Misspelled words *Incorrect grammar | *Not a complete sentence. *Does not apply to the question *Messy, Illegible *Misspelled words *Incorrect grammar |

| | | | |
|----------------------|---|---|--|
| | | <p>*Neat and organized</p> <p>no explanation</p> <p>*Sentence fragments</p> <p>*Misspelled words</p> <p>*Incorrect grammar</p> | |
| Conclusion | <p>*Exceeds Expectations</p> <p>*Conclusion is related to the hypothesis</p> <p>*Correct wording and format</p> <p>*Stated in complete sentences, no fragments</p> <p>*No misspelled words</p> | <p>*Conclusion is related to the hypothesis as the answer to the problem or question</p> <p>*Used correct grammar and sentence structure.</p> | <p>*Not related to the problem</p> <p>*Not written in correlation to the hypothesis</p> <p>*Incomplete sentences, fragments</p> <p>*Misspelled words</p> <p>*Incorrect grammar</p> |
| Points Earned | Points: | Points: Points: | Points: |