Wilmington Preparatory Academy

C:\Users\User\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\C2719J15\MC900351968[1].wmfScience Fair Packet

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| --- | --- |
| Schedule of Assignments  Wednesday, April 9th  Friday, April 11th | \*Science Fair packets go home with students.  \*Parents review with students and choose a topic. |
| Monday, April 14th | Assignment #1 is due: **Problem Statement** |
| Wednesday, April 16th | Assignment #2 is due: **Hypothesis** |
| Friday, April 25th | Assignment #3 is due: **Background Information**  **and Bibliography** |
| Wednesday, April 30th  Wednesday, April 30th | Assignment #4 is due: **Materials**  Assignment #5 is due: **Procedures and Variables** |
| Monday, May 5th | Assignment #6 is due: **Data** |
| Friday, May 9th | Assignment #7 is due: **Results and Conclusion** |
| Monday, May 12th | Assignment #8 is due: **Title and Abstract** |
|  | |
| Friday, May 16th | **Oral Presentation** and **Triboard Display** |
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Assignment 1 Due Monday, April 14th

Problem Statement

(Topic) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Select a topic that can be answered only by experimenting. Write your topic as a question to be investigated. The best topics are phrased “What is the effect of \_\_\_\_\_\_\_\_\_\_\_ on \_\_\_\_\_\_\_\_\_\_\_\_\_?”**

*Example:* “Which is the effect of music on plant growth?”

**Good Topics:**

1. What is the effect of temperature on plant growth?

*This is a good topic because it required experimentation that you can do yourself. You must use the scientific method in completing this project.*

*2.* What is the best environment for mealworm reproduction?

*This topic suggests the use of an experimental method. Asking a question is a good approach toward developing your topic.*

*3.* Does starting temperature affect freezing time of liquids?

*This is an investigation where only one variable is being manipulated.*

**Poor Topics:**

1. How volcanoes erupt.

*This topic will not allow experimentation without visiting real volcanoes. Making a model that erupts is a demonstration not an experiment.*

*2.* Microscopes.

*This topic is too general. Telling how one works is not experimentation.*

*3.* Do different brands of paper towels soak up different temperatures of water at the same rate?

*This topic needs to be narrowed down to one investigation. Only one variable should be manipulated in an investigation.*

**Notes:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

Assignment 2 Due Wednesday, April 16th Hypothesis

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**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.”

**Notes: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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Assignment 3 Due Friday, April 25th

Background Information

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

**\*Follow these guidelines for conducting your research:**

1. Read books 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.**

Assignment 3 Due Friday, April 25th

Bibliography

**Make a list of all the books, magazines, internet articles, interviews, or other sources that were used.**

**\*Write your bibliography using the following format:**

***Books***

**Format:**

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

**Examples:**

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

Society, 1974.

Boorstin, Daniel J. *The Creators: A History of the Heroes of the Imagination*. New York: Random,

1992.

Hall, Donald, ed. *The Oxford Book of American Literacy Anecdotes*. New York: Oxford UP, 1981. Searles, Baird, and Martin Last. *A Reader's Guide to Science Fiction*. New York: Facts on File,

Inc., 1979.

Toomer, Jean. *Cane*. Ed. Darwin T. Turner. New York: Norton, 1988.

***Encyclopedia & Dictionary***

**Format:**

Author's last name, first name. "Title of Article." *Title of Encyclopedia*. Date.

Note: If the dictionary or encyclopedia arranges articles alphabetically, you may omit volume and page numbers.

**Examples:**

"Azimuthal Equidistant Projection." *Merriam-Webster's Collegiate Dictionary*. 10th ed. 1993. Pettingill, Olin Sewall, Jr. "Falcon and Falconry." *World Book Encyclopedia*. 1980.

Tobias, Richard. "Thurber, James." *Encyclopedia Americana*. 1991 ed.

***Magazine & Newspaper Articles***

**Format:**

Author's last name, first name. "Article title." *Periodical title* Volume # Date: inclusive pages.

Note: If an edition is named on the masthead, add a comma after the date and specify the edition.

**Examples:**

Hall, Trish. "IQ Scores Are Up, and Psychologists Wonder Why." *New York Times* 24 Feb. 1998, late ed.: F1+.

Kalette, Denise. "California Town Counts Down to Big Quake." *USA Today* 9 21 July 1986: sec. A:

1.

Kanfer, Stefan. "Heard Any Good Books Lately?" *Time* 113 21 July 1986: 71-72. Trillin, Calvin. "Culture Shopping." *New Yorker* 15 Feb. 1993: 48-51.

***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>.

Dove, Rita. "Lady Freedom among Us." *The Electronic Text Center*. Ed. David Seaman. 1998.

Alderman Lib., U of Virginia. 19 June 1998 <http://etext.lib.virginia.edu/subjects/afam.html>.

Lancashire, Ian. Homepage. 28 Mar. 2002. 15 May 2002 <http://www.chass.utoronto.ca:8080/~ian/>. Levy, Steven. "Great Minds, Great Ideas." *Newsweek* 27 May 2002. 10 June 2002

<http://www.msnbc.com/news/754336.asp>.

**Notes: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

Assignment 4 Due Wednesday, April 30th

Materials

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

**Good Example:**

1. 3 – 15x15 cm. sheets of each paper towels: Brawny, Viva, and Bounty.

2. 1 20x20 cm. square cake pan

3. 750 ml water, 20° Celsius

4. Celsius thermometer

5. Clock with a second hand

**Poor Example:**

1. Paper Towels

2. Measuring Cup

3. Water

4. Container

5. Thermometer

6. Clock

**Notes:**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Assignment 5 Due Wednesday, April 30thProcedures

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**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 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

**Notes: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

Assignment 5 Due Wednesday, April 30th  
Variables

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**Variables are all the factors that affect your investigation. There are three types of variables.**

**Manipulated Variable:** What you can change on purpose in an investigation

*Example:* Brand of paper towels

**Responding Variable:** What changes by itself because you manipulated (changed)

something in your investigation.

*Example:* Amount of water that is absorbed by each paper towel.

**Variables Held Constant:** Everything else in your investigation must be kept the same

(the controlled variable)

*Example:* Size of paper towel

Amount of water poured on each towel

Temperature of the water used

Container towels are placed in

**Notes: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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Assignment 6 Due Monday, May 5th

Data

**Data refers to information gathered during your investigation. Writing in a spiral notebook is the most convenient way to keep a log. Be sure to turn in this notebook on the due date!**

**\*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.

**\*The data collected during the course of your investigation needs to be quantifiable**

**(measurable).**

**\*All measurements in your investigation must be made in metric units.**

Volume: milliliter (ml) 1000 mL = 1L Liter (L)

Length: millimeter (mm) 10mm=1cm

Centimeter (cm)

Meter (m) 1000m =1km

Kilometer (km)

Mass: milligram (mg) 10mg=1cg Centigram (cg) 100cg=1g Gram (g) 1000g=1kg Kilogram (kg)

**Notes:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Assignment 7 Due Friday, May 9th  
Results

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**Write the results of the experiment based on the information you have observed. This should be in *paragraph* form.**

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

**Notes: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

Assignment 7 Due Friday, May 9th  
Conclusion

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

As 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 your 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)

Assignment 8 Due Monday, May 12th  
Title

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*Example: “A Mixing Mystery” “Density Dilemma” “Let’s Play Ball!”*

**\*THE TITLE SHOULD NOT BE THE SAME AS THE PROBLEM STATEMENT!**

Abstract

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**The abstract is a *summary* of the entire project. It is written in three paragraphs.**

***Paragraph #1*** Purpose of the experiment and the Hypothesis

***Paragraph #2*** Procedures

***Paragraph #3*** Results and the Conclusion

*Example:*

The purpose of this project is to determine which type of chocolate chip cookie third grade students like best. It is hypothesized that third graders will like home-made chocolate chip cookies best.

Two different types of cookies were bought from Publix. Also, my mother and I baked some. The three types of cookies were put in bags marked A, B, and C. All third grade students were given one cookie from each bag and asked to fill out a slip selecting the best cookie and indicating themselves as a boy or a girl.

The results showed that third grade boys like homemade cookies best, and girls like

*Keebler Cookies* best. The hypothesis was not correct. To improve this study, I would collect data at different times of the day.

Assignment 8 Due Monday, May 12th  
Application

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Having tested three brands of paper towels, Brawny, Viva, and Bounty for the best absorbency, it is now known from this experiment that the from these three branded paper towels Bounty paper towel has the most absorbency. With this information consumers may now be able to make a more scientific decision when choosing the brand of paper towel. If the consumer wishes to purchase a paper towel product with more absorbency then Bounty is the paper towel to purchase. However, not always does a consumer want the most absorbent paper towel and therefore knowing this information the consumer will not purchase the Bounty paper towel but rather another brand, perhaps Viva which absorbed the least from the three tested.

Oral Presentation

1. Introduce yourself.

2. Give the title of your project and its purpose.

3. Briefly explain why you became interested in this project.

4. Explain your procedures, relate the number of trials, and show your results using tables, charts, or graphs.

5. Explain your conclusions (what you’ve proven). If there were any errors or problems, explain how this may have affected the experiment’s outcome.

6. Tell what you might do differently next time.

7. Explain how your project can help others.

**\*\*Suggestions\*\***

Smile and be polite

Stand straight and still

Keep eye contact with your audience

Project your voice so that everyone can hear you

Stand to the side of the display board

Show enthusiasm!

Use notecards so you don’t forget anything!

Final Notes

**Do's and Don'ts For Your Display Board**

Do use computer-generated graphs.

Do display photos representing the procedure and the results.

Do use contrasting colors.

Do limit the number of colors used.

Do use display models when applicable. If possible, make the models match the color scheme of the backboard.

Do attach charts neatly. If there are many, place them on top of each other so that the top chart can be lifted to reveal the ones below.

Do balance the arrangement of materials on the backboard. This means evenly distributing   
the materials on the board so that they cover about the same amount of space on each panel.

Do use rubber cement or double-sided tape to attach papers. White school glue causes the paper to wrinkle.

Don't leave large empty spaces on the backboard.

Don't leave the table in front of the backboard empty. Display your models (if any), report, copies of your abstract, and your journal here.

Don't hang electrical equipment on the backboard so that the electric cord runs down the front of the backboard.

Don't make the title or headings hard to read by using uneven lettering, words with letters of different colors, or disorganized placement of materials.

Don't hand-print the letters on the backboard.

Don't attach folders that fall open on the backboard.

Don't make mistakes in spelling words or writing formulas.

Don’t write sloppy or messy. You could type your work instead.

Don’t forget anything!

