

SCIENCE 7 PERFORMANCE TASK #2 – GROUP TASK (60 points)

General Instructions: Construct a simple scientific investigation on a short bond paper. You may investigate any problem/question, except the ones we used in our lessons. It should be handwritten.

Submission is on July 24, 2026 (Friday). Strictly during Science time only.

Steps to Follow:

1. Identifying Problems

- **Task:** Choose a simple problem or question that interests you. This problem should be something you can investigate with **common items**.

2. Formulating a Hypothesis

- **Task:** Based on your observations, make an educated guess about what you think will happen in your experiment.

3. Experimentation/Testing the Hypothesis

- **Task:** State the variables (independent, dependent, and controlled). Design and carry out an experiment to test your hypothesis. Ensure that your experiment is safe and uses simple materials. Also, include the list of materials you used during the experiment.
- **Note:** Attach pictures/documentation for this part.

4. Collection of Data (Data Gathering/Making Observations)

- **Task:** Collect the results of your experiment and organize them in a clear way. This can include noting details about what you have observed in the experiment. Use a table/chart/graph to organize the data you have gathered.

5. Analyze Data

- **Task:** Find patterns or trends or compare the results during the experiment.

6. Conclusion

- **Task:** Based on your analysis, determine if your hypothesis was supported by the results.

7. Communicating Results

- **Task:** Explain how you can share your findings in a clear and organized manner. State how would your group communicate or share the results to other people or to your community.

Reminders:

- Ensure safety during your experiment. Always ask an adult for help if needed.
- Use common materials and follow instructions carefully.
- Be honest in your observations and results.

Scientific Investigation Format

- ✓ Short bond paper
- ✓ Staple your papers (for multiple pages)
- ✓ Handwritten (must be legible)

Title Page:

- Title of Experiment
- Name of each member with corresponding class number (CN – Last, First, M.I.) (alphabetical)
- Grade and Section
- Date

I. Phenomenon/ Observed problem

- scenario

II. Problem statement

- one sentence in question form

III. Hypothesis

- Use if... then... statement
- One sentence

IV. Experimentation

1. Variables:

- Independent
- Dependent – can be multiple
- Controlled – can be multiple

2. Step-by-step procedures (attach pictures of the process)

Documentation:

Picture	Picture	Picture
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3. List of materials used

V. Data Collection and Analysis

1. Use a Table/Chart/Graph to present clearly the data you gathered
2. Correct analysis of Data

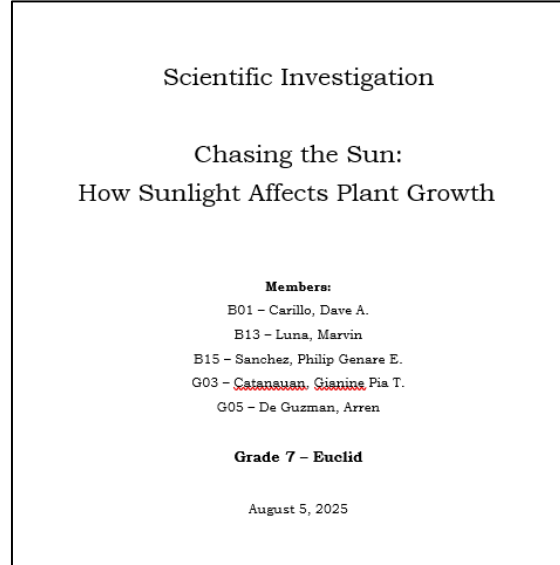
VI. Conclusion

- 2-3 sentences

VII. Communication of results

Sample Scientific Investigation

First page: Title Page sample



Next page/paper:

I. Phenomenon/ Observed problem

One of our plants grows faster than another, even though they are the same kind and were planted at the same time.

II. Problem statement

Why is one of my plants growing faster than the other?

III. Hypothesis

If a plant receives more sunlight, then it will grow taller and have more leaves than a plant that receives less sunlight.

IV. Experimentation

1. Variables:

- Independent – amount of sunlight
- Dependent – plant growth: height, number of leaves, color of leaves
- Controlled – type of plant, size of pots, soil type, amount of water

2. Step-by-step procedures (attach pictures of the process)

1. Using the pots, soil, and seeds, set up the two plants: one placed by a sunny window and the other in a shady corner.
2. Water them the same amount every day and observe them for one weeks.
3. Observe the plant growth each day, then record the data you gathered.

Documentation:



- (this is a sample only, not the actual picture of the experiment)
- At least 3 pictures with short caption
Example: Day 7 – Plant A has grown 14 cm and has 15 dark green leaves

3. List of materials used:

- seeds
- pots
- soil
- shovel
- water
- ruler

V. Data Collection and Analysis

Day	Plant A Height (cm)	Plant A Leaves	Plant A Leaf Color (1-5)	Plant B Height (cm)	Plant B Leaves	Plant B Leaf Color (1-5)
1	5	2	3	5	2	3
2	6.1	3	4	5.3	2	3
3	7.2	4	4	5.6	3	3
4	8.5	5	5	5.9	3	3
5	9.8	6	5	6.2	4	3
6	10.9	7	5	6.4	4	2
7	12	8	5	6.5	4	2

Table 1. Observed plant height, plant leaves, leaves color of Plant A and Plant B in 7 days

Analysis:

1. Plant Height:

- Plant A (Full Sunlight) grew from 5.0 cm to 12.0 cm over 7 days — an increase of 7.0 cm.
- Plant B (Partial Shade) grew from 5.0 cm to 6.5 cm — an increase of only 1.5 cm.

2. Number of Leaves:

- Plant A increased from 2 to 8 leaves.
- Plant B increased from 2 to only 4 leaves.

3. Leaf Color Rating:

- Plant A's leaf color improved from 3 to 5 (very green/healthy).
- Plant B's leaf color stayed the same or even dropped slightly to 2 (pale/less healthy).

VI. Conclusion

The plant that received more sunlight (Plant A) grew taller, had more leaves, and had greener/healthier leaves than the plant in partial shade (Plant B). Therefore, the hypothesis is accepted: the plant that receives more sunlight will grow taller and have more leaves than a plant that receives less sunlight.

VII. Communication of results

Our group will create a poster or infographic presentation to show our problem, experimentation data, and conclusion. We will present to other students our whole procedure and results to inform them of the findings and receive input about the validity of our conclusion.

Grade 7 Science Performance Task - Scientific Investigation Rubric (60 Points)

Grade 7 – Section : _____ Group no. _____

Criteria	Excellent	Good	Fair	Needs Improvement	Points
Observed Problem	Clearly identifies a real, relevant, and observable problem.	Identifies the problem but lacks some important details.	Problem is vague or only partly based on observation.	Problem is unclear or not identified.	3
Problem Statement	States a clear, specific, and testable scientific question.	States a scientific question with minor errors or lacks specificity.	Question is unclear or difficult to investigate.	No clear problem statement is provided.	3
Hypothesis	Provides a logical and testable hypothesis and correctly identifies the independent, dependent, and controlled variables.	Provides a testable hypothesis with minor errors in identifying the variables.	Hypothesis is unclear and some variables are incorrect or missing.	Hypothesis is missing or not testable; variables are incorrect or absent.	3
Experimentation (Variables, Procedures, Documentation, and Materials)	Correctly identifies all variables. Procedures are complete, logical, and safe. Complete documentation with clear pictures of the experiment is provided. All required materials are listed.	Most variables are correct. Procedures are complete with minor errors. Documentation is mostly complete. Most materials are listed.	Some variables are incorrect or missing. Procedures have several missing steps. Documentation is limited. Materials list is incomplete.	Variables are mostly incorrect or missing. Procedures are incomplete or unsafe. Documentation and materials list are missing.	15
Data Collection and Analysis (Tables and Charts)	Data are complete, accurate, and well-organized using properly labeled tables and/or charts. Analysis correctly interprets the data and explains patterns using evidence.	Data are complete with minor errors in organization or analysis. Tables/charts are present with few errors.	Data or analysis is incomplete. Tables/charts are poorly organized or lack labels.	Very little or no recorded data. Tables/charts and analysis are missing.	10
Conclusion	Conclusion clearly answers the problem statement, explains whether the hypothesis was accepted or rejected, and is fully supported by the collected data.	Conclusion answers the problem and is mostly supported by the data with minor errors.	Conclusion is weak or only partially supported by the data.	Conclusion is missing or not supported by the data.	5
Communication of Results	Presents the investigation clearly, confidently, and logically using appropriate scientific terms. All group members actively participate and answer questions accurately.	Presents the investigation clearly with minor errors. Most group members participate and answer questions adequately.	Presentation lacks detail or organization. Only some members participate or have difficulty explaining the investigation.	Presentation is unclear, incomplete, or difficult to understand. Few or no members participate.	5
Originality	Demonstrates creativity and originality in conducting the investigation or presenting the results while meeting all task requirements.	Shows some originality and creativity.	Shows minimal originality.	Shows little or no originality.	3
Scientific Attitude	Consistently demonstrates curiosity, honesty in recording data, responsibility, cooperation, perseverance, and follows all safety rules throughout the investigation.	Demonstrates most scientific attitudes with only minor lapses in responsibility, cooperation, or safety.	Demonstrates some scientific attitudes but needs reminders to be responsible, honest, cooperative, or safe.	Rarely demonstrates scientific attitudes and does not consistently follow safety rules or work responsibly.	3
Timeliness and Group Collaboration	Submitted on or before the deadline. All members actively participated, shared responsibilities, and worked cooperatively throughout the investigation.	Submitted slightly late or most members participated actively.	Submitted one day late or only some members contributed.	Submitted several days late or little to no evidence of teamwork or collaboration.	5
Format, Cleanliness, and Legibility	Followed all required formats. Output is neat, organized, clean, and very easy to read.	Followed most of the required formats. Output is generally neat with minor readability issues.	Followed some of the required formats. Output is somewhat messy or difficult to read.	Did not follow the required format. Output is messy, disorganized, and difficult to read.	5
				Total	/60