

Evil Genius: Scene 1

Standing closely to inspect the digital globe, Evil Genius focused on a small cloud formation spiraling above the Gulf of Mexico.

“The cloud formation is growing in size... And soon it will become the most devastating thunderstorm to reach Decatur, Georgia— possibly destroying everything in its path... and no one will know of our sinister plan... unaware of our newww toxic cloud seeding method, they will think the thunderstorm is a *natural* disaster. MOOO...HAA...HAA!”

Meanwhile... in Atlanta, students of Mrs. Deloney’s Earth Sciences class rushed through the crowded hallways of Columbia Middle School arriving to homeroom on time. Hoping that the recent tropical depression in the Gulf would lead to the cancellation of school, Trent listened closely to the morning announcements:

8:45 A.M. CNN Weather Alert

Please excuse this interruption of your morning announcements...

“...The recent series of tropical depressions that developed near the West Coast of Africa have damaged the weather equipment used by the US National Weather Service. As a consequence, our community will rely on meteorologists of the local weather service to predict the weather in our area. The National Weather Service is calling upon local communities to donate any available weather equipment, including anemometers, barometers, and psychrometers, which may prove useful in identifying various weather conditions. Please be aware that the National Weather Service originally predicted a month of inclement weather, including heavy rain falls, thunderstorms, and other potentially dangerous weather conditions in our community....”

Trent could hear thunder in the background and knew it would not be long before it began to rain... but would it be enough for school to be cancelled?

Evil Genius: Group Assignments

Each group is to complete the following tasks:

1. Develop weather log of daily local weather reports using data from newspaper or weather channel for one week.
2. Make a group of weather instruments with which you can record daily readings. Your group is to make a barometer, psychrometer, and anemometer. You will hand in your daily readings in a weather log.

****Each group will complete these tasks over the course of a week and turn in the compiled logs at the end of the case.*

Evil Genius: Scene 2

Flying in a jet high above the storm brewing over the Gulf of Mexico, Evil Genius recorded its path and measured the increasing strength of the storm.

“Moooo...Haaaa...Haaaa... everything is going according to plan... Thunderstorms are forming because of the heat and moisture rising due to convection and it’s creating a tropical disturbance. Ha haaa! This storm will soon develop into a hurricane... and produce significant damage to the natural ecology...”

Evil Genius: Scene 3

Not only did the weather cancel school, it shut down the entire city and the cable. After a few days Trent became concerned.

“How much longer will the storm last? What is the projected path of the storm? Are more storms expected to follow?”

Trent then remembered from his Earth Sciences class that it is possible to make a simple weather station by making a barometer to measure the air pressure, a psychrometer to measure the relative humidity, and anemometer to measure wind speed. Trent thought, “I can measure and record the daily weather conditions and predict the weather to determine how long this storm will last.

Evil Genius: Epilogue

By constructing the weather station, Trent was able to determine that the trend of bad weather was likely to continue...

“MOOO...HAAA...HAAA!”

TO BE CONTINUED...

Task: Predict the weather for this weekend using what you’ve learned about clouds, barometric readings. Sketch a picture showing what we can expect and how to dress.

Evil Genius: Group Product

Develop cloud booklet, organized by families and indicate location of clouds height, type of weather associated with it. Include graphics and references! Be sure to cite any pictures that are not your own work. Be creative and original with your work.

Evil Genius: Box Chart

<p><u>Facts</u> (What we know right now)</p>	<p><u>Questions</u> (Based on current knowledge)</p>
<p><u>Hypotheses</u> (Based on facts and questions)</p>	<p><u>Learning Issues</u> (What we need to learn)</p>

Self/Group Evaluation

Date _____

Your Name: _____ Group # _____

Instructions: Please circle the response with which you agree the most. This evaluation will only be read by your teacher and will **not** be shown to other students.

1. How would you rate your participation in group discussion and group work?

5 Excellent 4 Very Good 3 Good 2 Fair 1 Poor

2. How would you rate your effort in completing the case:

5 Excellent 4 Very Good 3 Good 2 Fair 1 Poor

3. Did you complete the assigned homework? **Yes** **No**

If no, explain why:

4. How well did you work with everyone in your group:

5 Excellent 4 Very Good 3 Good 2 Fair 1 Poor

5. Overall, how would you rate your performance in this case?

5 Excellent 4 Very Good 3 Good 2 Fair 1 Poor

6. Your total score _____

7. Rate each group member on a scale of 1-5

Group Member	Participation in group discussion	Completed Assigned Task	Worked well within group	Overall performance	Total Score