LT: I can use collaborative and problem-solving strategies to solve puzzles relating to how scientists investigate the natural world.

> Identify and make sense of the problem
> Choose a strategy and plan
> Carry out the plan to solve the problem
> Verify your work with others

Visit the following link and use the clues on the next pages to unlock each puzzle:

https://docs.google.com/forms/d/e/1FAIpQLSf78b6qrDfSLLHdQ-5ganWgF58WoMlWCk4vW_iUXyZFtEvM-Q/viewform
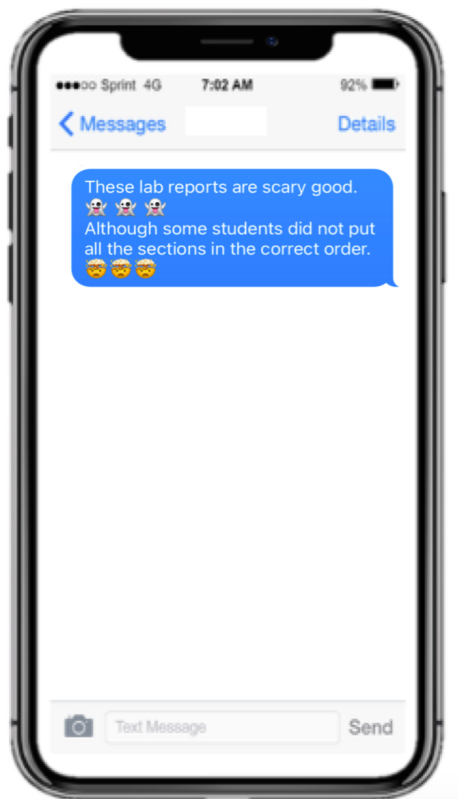
Puzzle 1:

Dear Parents/Guardians,

The students have been working on their first lab investigation that tested the effect of music on test scores. This was a long-term project that started with examining background information that described the Mozart Effect. Students designed an experiment, tested their hypothesis, and collected individual and class data. They then analyzed the results, drew conclusions and described their work in a formal lab report document.

It would be ideal that all reports are submitted on time so that they can be graded by October 31st.

Puzzle 2:

Text message on phone:
These lab reports are scary good. 👻 👻 👻 Although some students did not put all the sections in the correct order. 😎 😎 😎

Title/Question	E
Materials	P
Data Table/Graph	O
Conclusion	R
Analysis	E
Procedure	L
Hypothesis	X

Puzzle 3:

This robustum measures a little more than 2.5". It would be sold as a 2.5" juvenile.
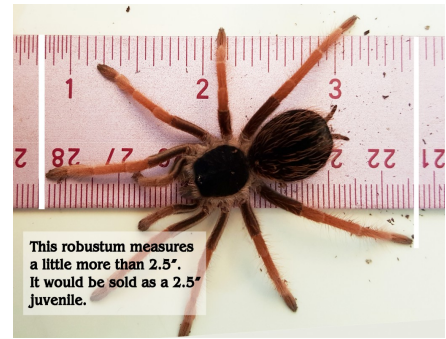
FMHXIZNYOV GSRH
HXRVMXV EVIY

A	B	C	D	E	F	G	H	I	J	K	L	M
Z	Y	X	W	V	U	T	S	R	Q	P	O	N

N	O	P	Q	R	S	T	U	V	W	X	Y	Z
M	L	K	J	I	H	G	F	E	D	C	B	A

1. A control group serves as a way to _____ the experimental group to something with no treatment of the independent variable.

2. The variable that is purposely changed in an experiment is called the _____ variable.

3. _____ variables are the variables that do not change in an experiment.

4. After an experiment, you should identify possible _____ of error by thinking about what could have went wrong during the experiment.

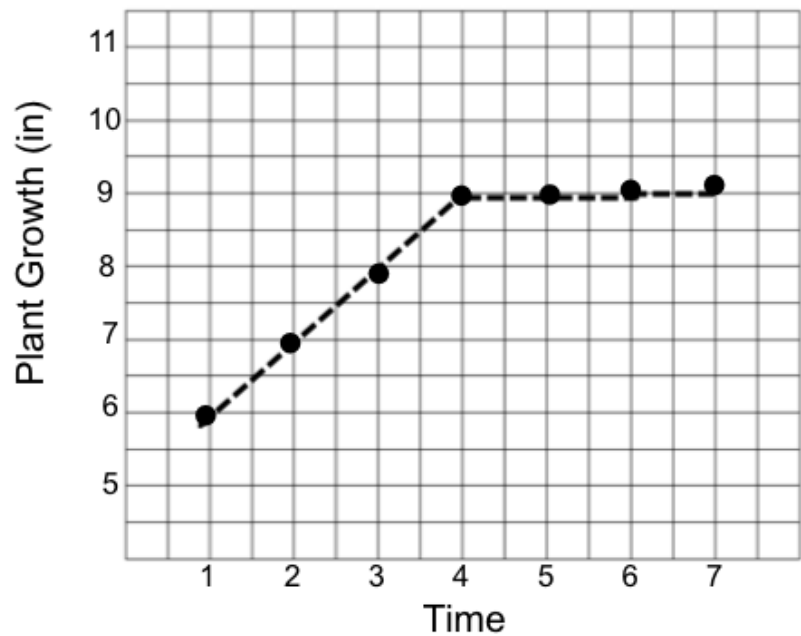# Puzzle 4:

Use the graph checklist to identify the **MISSING** graph parts.
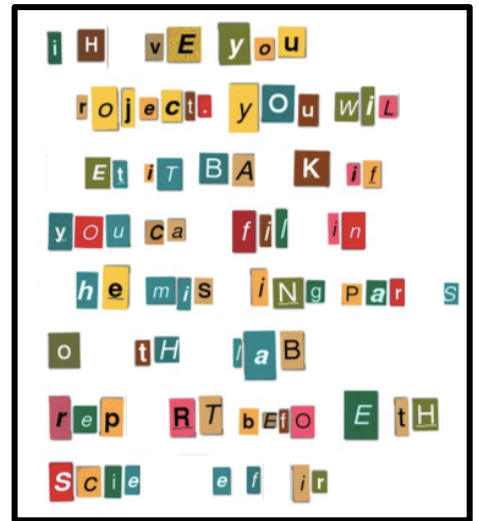
Record the numbers that represent missing graph parts in order to unlock this puzzle.

1. X axis Label
   2. Units (measure)
   3. Constant scale

4. Y axis Label
   5. Units (measure)
   6. Constant scale

7. Points connected with line

8. Title (includes information from both axes labels)

9. Key includes all lines

Puzzle 5:

Liquids, Turn Ghostly Invisible!

Problem: Which liquid will _A_ faster: sugar water, salt water, and distilled water?

Research: Liquids turn to gas in a process known as vaporization. Sponges left out overnight will evaporate. Energy is absorbed for the change to occur.

____B____ : IF the three liquids are placed in the same location for the same amount of time, THEN the sugar water will evaporate fastest.

____C____ : 25 mL of each of the three liquids, 3 beakers, windowsill

Procedures:
1. Put two scoops of sugar into Beaker A, two scoops of salt into Beaker B, and leave Beaker C as the control.
2. Fill the three beakers with 25 mL of water. Stir beakers A and B.
3. Place all beakers in the windowsill facing the light. Record the volume in mL.
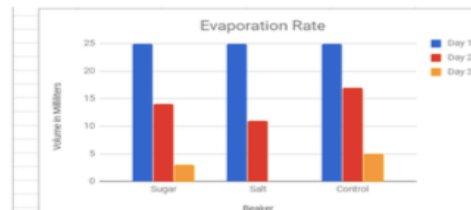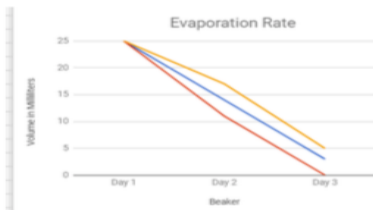4. Continue to record the volume in milliliters for 3 days.

_D_ Something is not right here

Data :

Beaker	Day 1	Day 2	Day 3
A -sugar water	25	14	3
B-salt water	25	11	0
C-distilled water	25	17	5

___E :___

__F_ : My hypothesis was incorrect. I thought that the sugar water would evaporate the fastest, but my results show that the salt water was the fastest. I learned how evaporation works to absorb light and heat. Next time, I'd try different liquids like soda or juice.

Where do these labels go?
1- Conclusion   2- Evaporate   3-Materials
4- Hypothesis   5- Milliliters/Units   6-Graph

Puzzle 6:

Find the 9 terms in the SNOTE.
Count the number of letters
in each and put them in
chronological order.
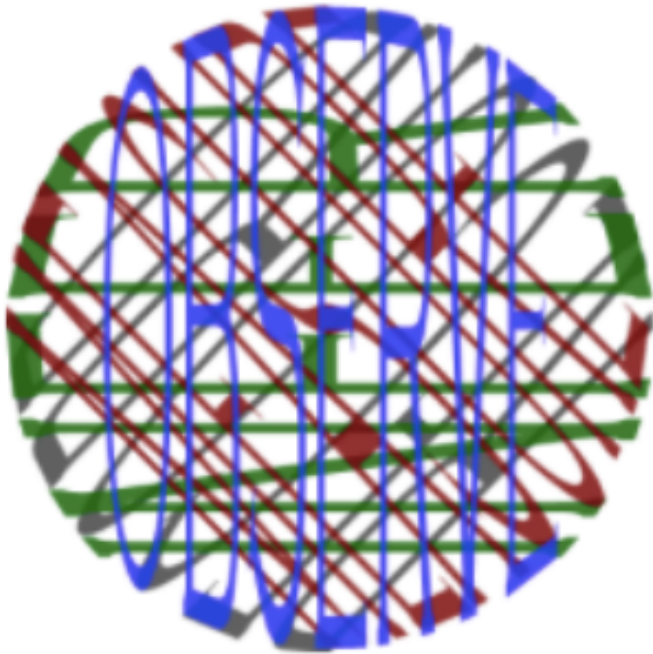
To view the SNOTE online, visit the following link:

https://snotes.com/snotes/ss.php?snoteId=59cd2a425a34f6.74101448

Puzzle 7:

WHAT DO THE HASHTAGS MEAN?
PUT THEM IN THE CORRECT ORDER
& COUNT THE LETTERS

#SUMMARY

#EDUCATEDGUESS

#DATAPIC

#STARTW/AQUEST?

ALMOST DONE

Puzzle 8:

These colored boxes have to mean something.

🟩 🟨 🟥

units
inquiry
results
data
interpret

hypothesis
question
record
conclusion
graph

R	Q	I	T	U	U	C	R	R	R	N	C	I	Q
R	R	R	N	L	R	N	S	I	U	N	O	Q	T
H	Y	P	O	T	H	E	S	I	S	U	N	G	U
H	T	I	N	T	E	R	Y	N	I	T	C	R	S
R	P	I	H	T	H	R	U	O	S	Q	L	A	T
N	N	T	N	R	E	I	P	N	S	U	U	P	U
R	C	P	I	N	Q	U	I	R	Y	E	S	H	N
U	E	R	L	S	C	D	T	S	E	S	I	S	I
O	N	S	E	S	C	A	S	T	S	T	O	O	T
U	D	D	U	C	O	T	A	Y	S	I	N	I	S
S	N	A	C	L	O	A	R	G	E	O	T	Y	A
O	A	U	R	D	T	R	I	N	H	N	I	R	R
A	O	A	I	L	H	S	D	T	S	S	O	S	I
T	D	P	T	N	P	O	H	S	H	C	N	N	H