Inside Cover	Costa's Levels of THINKING
INB Score Sheet	Level 1 – Who, What, Where, Why, How
	Level 2 – Explain Compare Contrast
	Level 3 – Predict Apply Evaluate

Left Side OUTPUT	Right Side INPUT
- Summaries	- Notes
- 1-pagers	- Whiteboard Pictures
- Practice Problems	- Lab Notes

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SWBAT: Model taking
Cornell Notes

1

SWBAT define Chemistry and explain how to use a mass balance

2 L1
Q

1 L3
Q

Sum: 3-5 sent.

2

3

4

Mass and Change
Lab Summary

5

SWBAT explain Law of Conservation of Mass and Physical vs. Chemical Chgs.

3 Qs
2L2

Summary

6

7

SWBAT compare and Contrast between Accuracy and Precision.

3
L2
Qs

Summary

8

9

Notes: Metric Prefixes

BIG   Kilo - 1000

Base - gram
       Liter
       meter

Centi - 1/100

Small Milli - 1/1000

10

SWBAT define mass, volume and Density.

3
L2
Qs

Summary

11

U2 KWL

What Do You KNOW?	What Do You WANT to know?	What Did You LEARN?

12

13

Demo	Observations	Whiteboarding	
PopCorn Demo		1	2
		3	4
Summary: See website for instructions		Note: See website for Notes	
14			15

Demo	Observations	Whiteboarding	
Water & Dye Demo		1	2
		3	4
Summary: See website for Instructions		Note: See website for Notes	
16		17	

1-pager of Demos	Video Notes:
• One-page Summary of Notes and what you learned from the 2 demos	Molecules in Solids
Must Include:	Molecules in Liquids
-Color	
-Border	
-3 pictures	Evaporation & Condensation
-2 Level 2 Qs with Answers	
18	19

Particle Diagrams

Melt 1   2   3

Freeze

Condensation

Evaporation

20

CN : States of Matter

3
L2
Qs

Summary:

21

|Demo| Expansion of Liquids

Observations:

Video & Demo Summary:

22

Expansion and Contraction

Heat & Temperature

23

Practice Problems	P, V, T, n Notes
P, V	See next SLIDE for Set-up
P, n	
P, T	
24	25

Parameter and Units		Relationship & Explanation	Picture
Pressure (P) is the number of collisions particles have with their container. <u>Units</u> atm = 1 mm Hg = 760 kPa = 101.3	Volume = amount of space	↑V, ↓P = inverse ↓V, ↑P = if less space then particles will collide more often. C = n, T	= 1 atm = 2 atm
	Particles (n) = puffs 1 mL = 1 puff	↑n, ↑P = direct when you increase the # of air particles in a constant volume they will collide more ↑ pressure C = V, T	= 1 atm = 2 atm
	Temp		25

A 2.0L container at 25°C has <u>25 puffs</u> of air at a pressure of <u>800 mm Hg</u>. The container is opened and the pressure drops to <u>710 mm Hg.</u> How many puffs escaped?

n = puffs

	P	n
Initial	800 mm Hg	25 puffs
Final	710 mm Hg	22.2 puffs
Effect	↓	↓

<u>Show work</u>

$$25 \text{ puffs} \times \frac{710 \text{ mm Hg}}{800 \text{ mm Hg}}$$

$$= \frac{25 \text{ puffs} \times 710}{800} = 22.2 \text{ puffs}$$

$$\begin{array}{r} 25.\overset{4}{\cancel{0}}^{10} \\ - \; 22.2 \\ \hline 2.8 \end{array} \text{ puffs escaped}$$

1) Explain Problem (Introduce)

2) Explain Table

3) Explain Calculation

4) Does this answer make
   sense?