March 18 - March 24

Name: _____ Date: _____ Period: _____

Key Points	Details

Summary

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Summary

MYP One World Essay Directions

Issue: Chemical industrial plants can improve our standard of living, but they also can negatively affect our communities. Please research one type of chemical industrial plant. Research both the positive and negative aspects of your chosen chemical industrial plant.

Four main points:
1.
2.
3.
4.

Research

Main point 1:	
Advantages:	Disadvantages:
Data/Statistic:	Data/Statistic:
Source:	Source:
Choose one: Social Economic Political Environmental Cultural Ethical	Choose one: Social Economic Political Environmental Cultural Ethical

Main point 2:	
Advantages:	Disadvantages:
Data/Statistic:	Data/Statistic:
Source:	Source:
Choose one: Social Economic Political Environmental Cultural Ethical	Choose one: Social Economic Political Environmental Cultural Ethical

Main point 3:	
Advantages:	Disadvantages:
Data/Statistic:	Data/Statistic:
Source:	Source:
Choose one: Social Economic Political Environmental Cultural Ethical	Choose one: Social Economic Political Environmental Cultural Ethical

Main point 4:	
Advantages:	Disadvantages:
Data/Statistic:	Data/Statistic:
Source:	Source:
Choose one: Social Economic Political Environmental Cultural Ethical	Choose one: Social Economic Political Environmental Cultural Ethical

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Directions for the One World Essay:

Word count: 700 – 1200 words

Include the following: a strong thesis, numerical data in support (at least one for each main point), and a concluding paragraph.

Works cited: MLA format

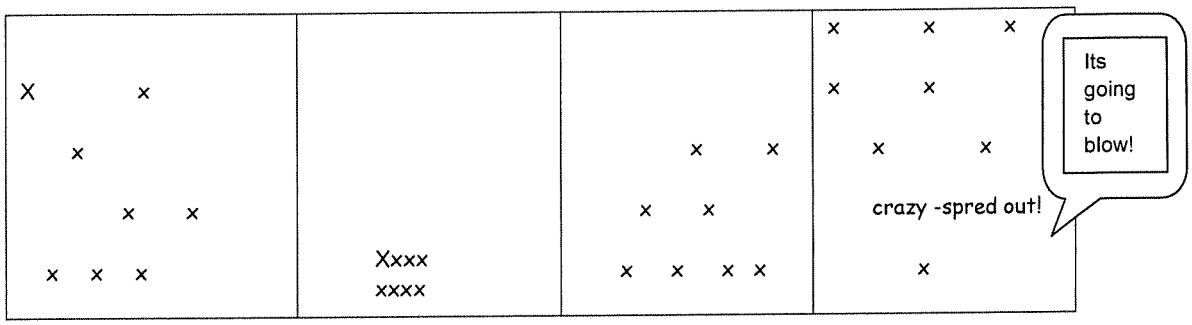
Investigating Matter – using *States of Matter* Simulation
Author: Jackie Esler

pre-lab

States of Matter: Name: _____

Pre-lab:

1. Using all of your knowledge about **solid, liquid, gas and plasma**, write the word below the boxes that **best describes the state of matter** based on the arrangement of particles.



a._____ b._____ c._____ d._____

2. Good times! You are standing in your kitchen blowing up a balloon for a party. It feels full, hard and ready to pop. All of the sudden you get a crazy thought. What would happen if you put the **balloon full of air at room temperature into the freezer**!!

Write a hypothesis:

_____

3.

Some necessary vocabulary:

States of matter include:_____, _____, _____

and *_____

A phase change is : _____

Examples of phase change are: melting, _____, _____

and _____

4. Complete the ***States of Matter*** simulation Student Activity

5. Look over this sheet to make sure all of your answers are completed correctly!

Investigating Matter with *States of Matter* Simulation
Author: Jackie Esler

States of Matter- Student Guide: Name: _____

Start: 1. Google: PhET states of matter

2. Click on the first link

3. Click on the Run Now! button.

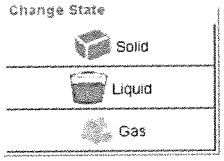
4. Explore the simulation. Be sure to click on everything.

Write two things you think the simulation is designed to help you learn.

a. _____

b. _____

5. Experiment with the



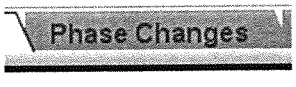
Choose one of the materials from the ***Molecules*** box - **neon, oxygen, argon or water**

Click on the solid, liquid and gas picture buttons until you can see the differences.

6. Draw a picture to represent the atoms or molecules during each state.

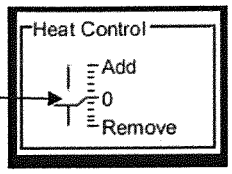
Solid	Liquid	gas

7. Go to the second tab up at the top of your screen.



Investigating Matter with *States of Matter* Simulation
Author: Jackie Esler

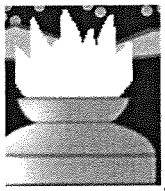
Move the arrow up and down.



Be sure to watch and discuss what is happening to the thermometer and the pressure gauge.

Observations:

Draw arrows (↓↑) to show what you observed.

When we add energy:  ,

Temperatue:	Speed of molecules	Pressure:
( )	( )	( )

When we take away energy:  ,

Temperature:	Speed of molecules:	Pressue:
( )	( )	( )

What happened to the **speed** and **arrangement** of the molecues as heat was added?

_____

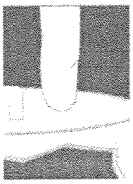
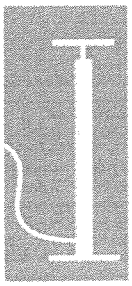
Frame: When heat is added, we noticed that the particles _____.
When heat was taken away, we noticed that the particles _____.

You have finished the lesson! Please have the teacher check the box! ☐

More to Explore: ⇨

Investigating Matter with *States of Matter* Simulation
Author: Jackie Esler

and There are some interesting features in this simulation.

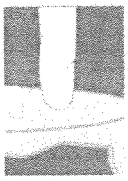



Experiment with them to find out how they "move" and what they do. When you think you have a good idea of how to use each feature, go on to the next step.

Draw arrows (↑ ↓) to show what happens.

Use the  to **add matter**: (you choose the number of pumps! _____)

Temperature:	Pressure:
( )	( )

Use the  to **reduce the space** in the container (decrease the volume).

Temperature:	Pressure:
( )	( )

Write about two things you discovered:

#1	#2