Matter Online Review

Matter Sorter Game : for Log In: MMS308 Marshall
http://www.brainpop.com/games/mattersorter/
1. Play the **Matter Sorter Game**
Record your score below:
What level did you get to? _____
What was your high score? _____
Complete the table below, listing 3 examples of each state of matter used in the game

Solid	Liquid	Gas	Plasma
Rock			

2. Play Science Unleashed: Solid Liquid or Gas:
http://www.scienceunleashed.ie/Games/States%20of%20Matter.swf

How many points did you earn for level 1?: _____ Level 2? _____

3. Read about Strange Matter: http://www.strangematterexhibit.com/
Click on "Improve Stuff", "Improve Equipment" then answer the following questions

**** Which type of material improves skateboards, cell phones, surgical scalpels and space probes?***

Circle One:

a. Magneto-Rheological Fluid: morphs from a liquid into a solid when it's close to a powerful magnet

b. Amorphous Metal: made by rapidly cooling hot metal, locks atoms in place and makes it very hard

c. Nitinol: has "shape-memory" add heat and it returns to it original shape.

**** How do amorphous metals improve the following items:***

a. Bike Frames & Sports Equipment: _____

_____

b. Scalpels & Blades: _____

_____

c. Space Probes: _____

_____

d. Cell Phones: _____

_____

4. NOVA: Absolute Zero: http://www.pbs.org/wgbh/nova/zero/
watch some clips (A Sense of Scale), play some games (How Low Can You Go), read more about reaching absolute zero
What did you learn: 3 sentences: _____

_____

_____

_____

5. Bose-Einstein Condensate (BEC)

• Originally predicted in the 1920s by Satyendra Nath Bose and Albert Einstein & proved in 1995 at the University of Colorado
• A BEC is a microscopic blob of atoms that lose their individual identities and shape at extremely low temperatures.
• A "_____", the opposite of _____
• http://www.colorado.edu/physics/2000/bec/index.html

6. How does thermal energy affect the state of a substance?
http://www.glencoe.com/sites/common_assets/science/virtual_labs/E17/E17.html
Follow instructions on the left column.
What did you learn: 3 sentences: _____

_____

_____

_____

7. Boyles & Charles' Laws. Complete the activity. What factors influence the pressure of a gas in a container?
http://www.glencoe.com/sites/common_assets/science/virtual_labs/PS08/PS08.html
What did you learn: 5 sentences: _____

_____

_____

_____

Draw the graphs that illustrate both laws. You may use your notes as a reminder

8. Chemical Mixup: http://mint.ua.edu/games/chemical-mixup/
Sort the types of matter into the correct category.

How many level did you achieve: _____ What were your points: _____

9. Rags to Riches: Mixtures, Solutions, Elements and Compounds: http://www.quia.com/rr/33049.html
Identify the 4 classifications of matter - mixtures, solutions, elements, compounds.
How many times did you play? _____ What was the top dollar value you achieved? _____

What was the toughest question?_____

Final Conclusions:

Of all the games you played:

1. Which one taught you the most: _____

2. Which one was the most fun: _____ Which one was the most boring: _____

3. Which one took the longest time to complete: _____

4. Was this a fun way to review: _____