Bill Nye – States of Matter Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. What are the 4 phases of matter?

Solid Liquid Gas Plasma

1. What is required in order to change the phase of any type of matter? Energy
2. What is the boiling point of liquid nitrogen? -196oC
3. What does liquid nitrogen do to the molecules of the three objects Bill “cooks?”

Slows down molecules- solidify-----turns to solid---------frozen

1. What is pressure? Moving molecules make pressure

1. What is absolute zero? NO molecular movement at all
2. Why can’t we get any type of matter to absolute zero? There is always a pathway for heat (Energy is always present even if only a little tiny bit.
3. What is the “fizz” in Coca Cola? CO2 –Carbon Dioxide

For the next three questions, you can use either words or a picture to answer:

1. Describe the speed & distance of molecules in a solid:

Close and very slow

1. Describe the speed & distance of molecules in a liquid:

Not packed or so close as solid

Moves faster than solid

1. Describe the speed & distance of molecules in a gas:

Very far apart

Very fast moving

1. How do they demonstrate that gases have mass?

Place gas in balloon and placing on triple beam balance or gas in bag which falls to ground

1. What did you learn that was new information?
2. What would you like to know more about?