 Dinner Menu – Matter

**Appetizer (everyone does)**

Write a paragraph (at least three sentences) using and defining the words element, compound, heterogeneous mixture, homogeneous mixture, and pure substance.

Entree (pick one)

1. Create a flyer that explains the difference between chemical & physical properties or describe the difference between chemical & physical changes. Include 2 examples of each.
2. Create a flyer that explains the 3 main states of matter. The flyer should include a description of each. It should also include a picture or diagram of each.
3. Use the following terms to create a mini-concept map: matter, mixtures, homogeneous, heterogeneous mixtures, pure substances, compounds, atoms, solutions

**Side Dishes (pick two)**

1. When you are in the room next to your kitchen, you can smell soup cooking. Why is this? Explain (in sentences)
2. Explain why cooking is an example of chemical or physical changes. Give examples.
3. Using microscopic drawings (molecular level), show the difference between a physical change and a chemical change. Explain your drawings.
4. We use terms such as “heterogeneous mixture” and “homogeneous mixture” but not “heterogeneous compound” or “homogeneous compound”. Why not?
5. Why would a chemist find fault with the phrase “pure orange juice”?
6. Explain how you can use the density of various objects to identify the substance.

**Dessert (answer & explain your choice)**

The boiling of water is a (explain)

1. Physical change because the water disappears.
2. Physical change because the gaseous water is chemically the same as the liquid.
3. Chemical change because heat is needed for the process.
4. Chemical change because hydrogen and oxygen gases are formed.
5. Chemical and physical change.