

Chemical and Physical Change Homework

For each of the following, determine whether a chemical or physical change is taking place:

- 1) A hot dog is cooked
 - Chemical or physical change?
 - Your reason:

- 2) Thousand Island dressing and mayonnaise are mixed to make “secret sauce” for hamburgers
 - Chemical or physical change?
 - Your reason:

- 3) Water is boiled in preparation for making pasta
 - Chemical or physical change?
 - Your reason:

- 4) Old ham goes bad in the refrigerator
 - Chemical or physical change?
 - Your reason:

- 5) A rock star gets a tattoo on his forehead
 - Chemical or physical change?
 - Your reason:

Chemical and Physical Change Homework

For each of the following, determine whether a chemical or physical change is taking place:

- 1) A hot dog is cooked
 - Chemical or physical change? **Answer may vary, depending on whether the student is used to boiling or grilling a hot dog. However, cooking is generally thought of as being a chemical change.**
 - Your reason: **The properties of the hot dog (consistency, taste, etc) are different after cooking than before, suggesting that drastic changes have been made.**

- 2) Thousand Island dressing and mayonnaise are mixed to make “secret sauce” for hamburgers
 - Chemical or physical change? **Physical change**
 - Your reason: **Mixing things doesn’t break or make chemical bonds**

- 3) Water is boiled in preparation for making pasta
 - Chemical or physical change? **Physical change**
 - Your reason: **The process of boiling doesn’t break the bonds in water molecules (breaking the hydrogen bonds between molecules doesn’t count)**

- 4) Old ham goes bad in the refrigerator
 - Chemical or physical change? **Chemical change.**
 - Your reason: **From the wide variety of properties that change, it can be inferred that the chemical structure of the ham has been changed.**

- 5) A rock star gets a tattoo on his forehead
 - Chemical or physical change? **Physical change**

Your reason: **The dye in tattooing ink doesn’t formally bond to the skin. Students may not be aware of this, so if they say that it’s a chemical change but have the general idea that the ink has bonded, they should still receive credit.**