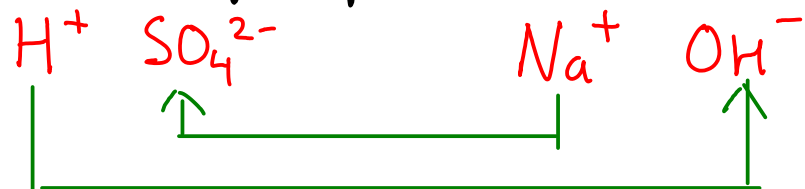
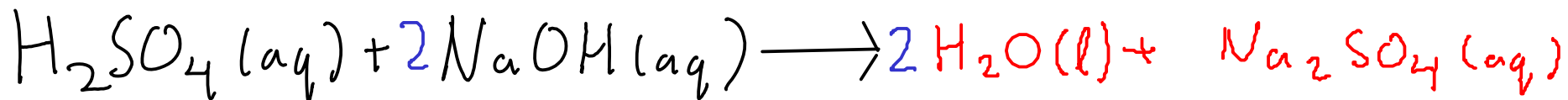
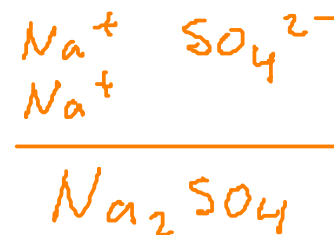
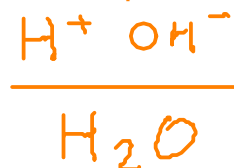


Examples of acid-base chemistry:

When a neutralization reaction occurs, energy is released. There will be a temperature increase!

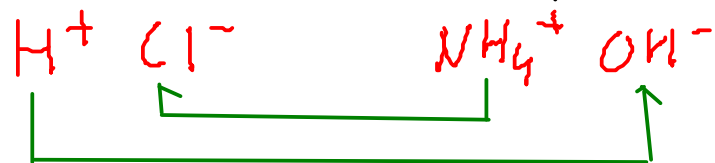
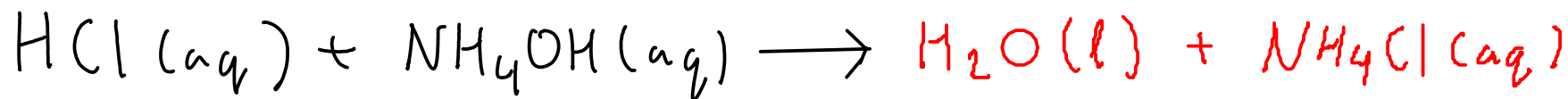


Potential products:



Why "neutralization?"

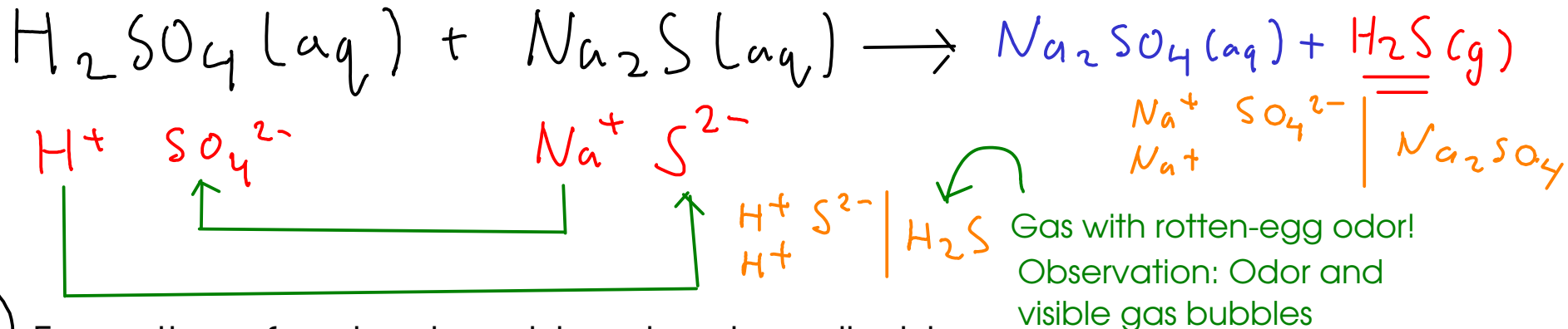
*The products of the reaction (water and a "salt") do not have any of the characteristic properties of acids and bases. These properties can be said to be "neutralized".



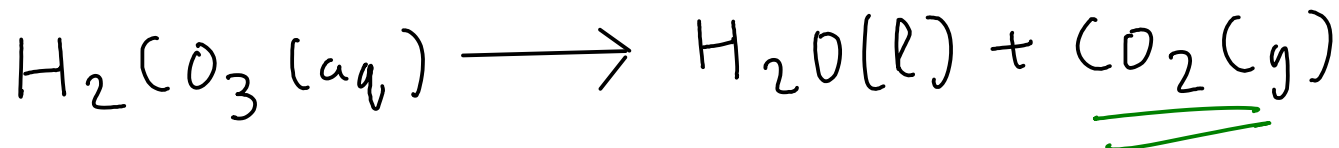
DOUBLE REPLACEMENTS THAT FORM GASES

① Formation of hydrogen sulfide: H_2S

- need an ACID (source of hydrogen ion) and a SULFIDE



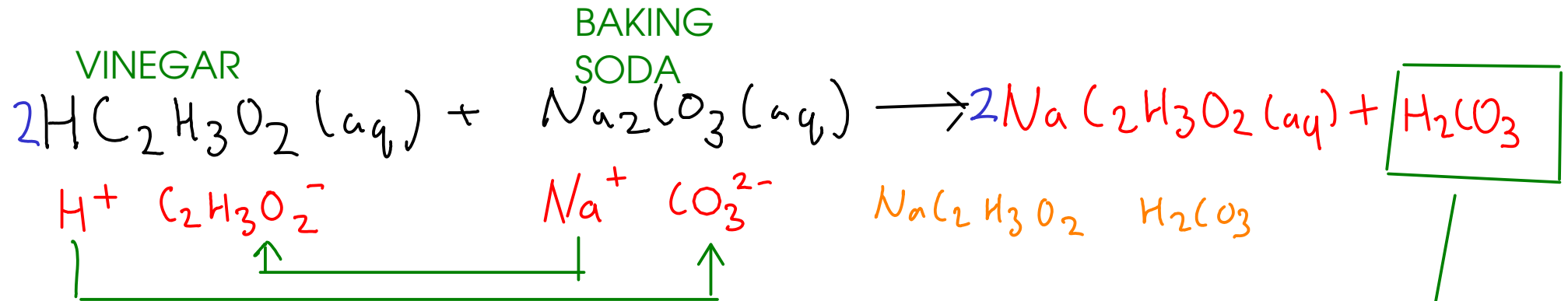
② Formation of carbonic acid and carbon dioxide:



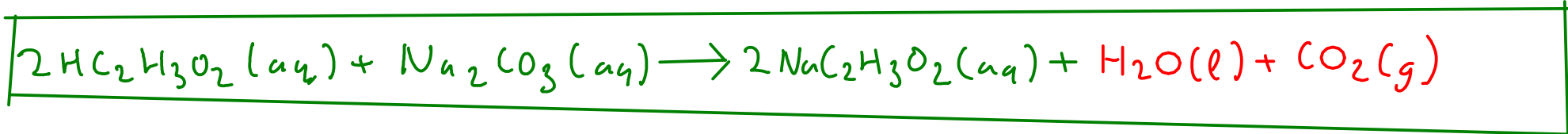
- to form carbonic acid by double replacement, you need a source of hydrogen ion (ACID) and a source of carbonate (can be CARBONATE or BICARBONATE)



Example of a reactions that forms carbonic acid, then gas: The "baking soda volcano"!



... but carbonic acid decomposes, and we get GAS BUBBLES



This is the overall process. We show carbon dioxide and water as products, since we want to show the reaction as it's actually observed -with carbonic acid broken down to water and (gaseous) carbon dioxide.