

Topic 3 - How Do You Spell Relief?

- Phosphoric acid is used in fertilizers and detergents. It is identified as an acid because it ...
 - feels slippery, and has a pH of more than 7
 - has a rough texture, and has a pH of 7
 - is insoluble, and has a pH of 7
 - is soluble in water and has a pH of less than 7
- Sodium hydroxide is used in household cleaners and as a reagent in film processing. The properties that identify it as a base are, it ...
 - feels slippery, and has a pH of more than 7
 - feels rough with texture, and has a pH of 7
 - is insoluble, and has a pH of 7
 - is soluble in water and has a pH of less than 7
- The pH scale is a way of comparing the ...
 - “power of hydrogen ions”
 - solubility of acids and bases
 - reactivity of acids and bases
 - relative acidity or alkalinity of a substance.
- Red cabbage juice, grape juice and tea was used by a student in an experiment to act as an indicator because it changed color according to the type of substance it was added to. These types of indicators were used to ...
 - identify the pH of the substance it was added to
 - identify a substance as an acid, a base, or neutral
 - change the taste of the substance being tested
 - test the substance for the presence of carbon dioxide
- A universal indicator is used to measure pH...
 - as well as acidity
 - flammability level
 - over a wide range
 - and how basic it is
- In neutralization reactions acids and bases react together when they are mixed. These types of reactions produce ...
 - a salt and water
 - carbon dioxide gas
 - neutral acids
 - neutral bases
- $\text{SO}_{2(g)} + \text{H}_2\text{O}_{(l)} \longrightarrow \text{H}_2\text{SO}_{3(aq)}$ - this chemical equation describes the formation of ...
 - acid shock
 - neutralization
 - sulfur dioxide rain
 - acid precipitation
- In 1996 an agreement between Canada and the US targeted a reduction by the year 2000, in industrial exhaust emissions of
 - 2%
 - 7%
 - 10%
 - 20%
- A decrease of one unit in the acidity of a substance indicates the acidity has been ...
 - divided by a factor of 10
 - multiplied by a factor of 10
 - added to how basic it was
 - subtracted from how basic it was

10. One part per million means that one unit of an element or chemical can be found in ...
- A. one very small amount of a litre
 - B. one hundred thousand parts
 - C. one million units of solution
 - D. a trace amount of a particular solution
11. $\text{Ca}(\text{OH})_2 + \text{H}_2\text{SO}_4 \rightarrow \text{CaSO}_4 + \text{H}_2\text{O}$
What is the chemical used to neutralize acid rain precipitation?
- A. Hydrogen Sulfide
 - B. Calcium Sulfate
 - C. Sulfuric Acid
 - D. Calcium Hydroxide
12. To reduce the concentration of a pollutant by mixing it with large quantities of air or water is called...
- A. Dispersion
 - B. Dilution
 - C. Biodegradation
 - D. Decomposition
13. A catalytic converter helps the formation of CO_2 and H_2O , reducing CO and NO_2 . The purpose of the converter is to encourage ...
- A. complete oxidation
 - B. biodegradation
 - C. photoremediation
 - D. corrosive by-products
14. The key to scrubbing exhaust gases is the addition of calcium oxide (CaO), which reacts with the sulfur dioxide gas ($\text{SO}_2(\text{g})$) to form calcium sulfite (CaSO_3) – the sorbent, which is soluble in water. The role of the sorbent is to ...
- A. clean and dissolve the sulfur particles
 - B. penetrate and destroy the sulfur particles
 - C. absorb or capture the sulfur oxides
 - D. redirect and neutralize the sulfur oxides
15. An added bonus in the COBRA scrubber is a catalytic reaction that breaks down nitrogen oxides into nitrogen, oxygen gas and water vapour when this is added ...
- A. sulfur
 - B. hydroxide
 - C. ammonia
 - D. calcium