



3. Provide details of the basic chemistry occurring in a **photochemical smog**, include the key compounds and the physical conditions required for a smog to form?  
What measurements are carried out to declare a photochemical smog event?

4. Acid rain has a pH of less than 4.9 and typically contains the mineral acids  $\text{H}_2\text{SO}_4$  and  $\text{HNO}_3$ . How is the **buffer capacity of a soil** important in determining if forests growing in regions affected by acid rain will be affected by acid rainfall?