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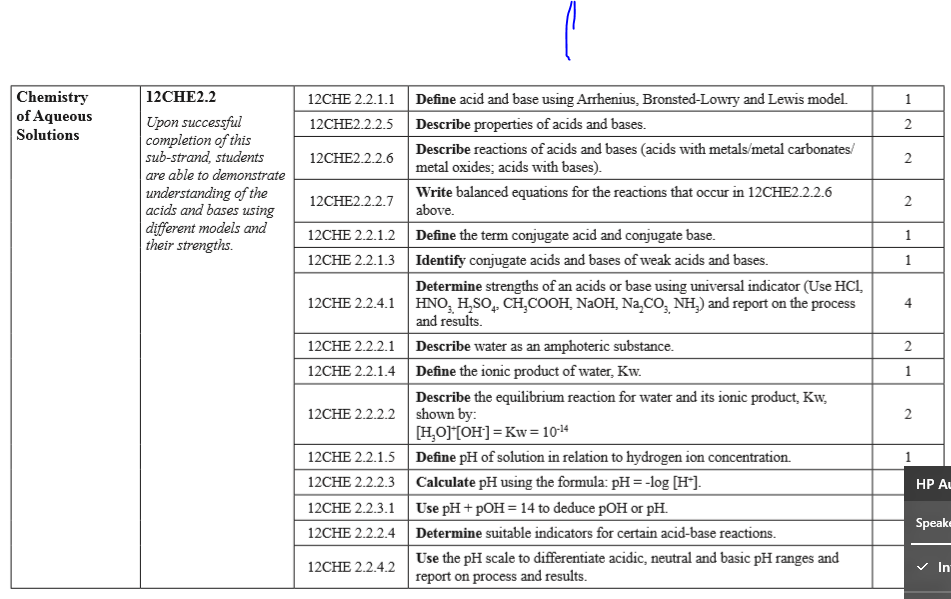
Central School

Home School Package

**Year :12**



**HOME SCHOOL PACKAGE CONTENT**



**LESSON Plan**

|  |  |
| --- | --- |
| G:\Home Learning Packages\Documents for SHEFA Schools Principal\teacher-computer-icons-school-test-education-teaching.jpg Teacher | Name :Judy W Vire  Subject : Chemistry |
| G:\Home Learning Packages\Documents for SHEFA Schools Principal\download.jpg  Date | Week 8 of term 2 |
| G:\Home Learning Packages\Documents for SHEFA Schools Principal\title.jpg | Topic : Chemistry of Aqueous solution  Lesson number : 4 |
| Learning outcomesLearning outcomes | * Use pH + pOH = 14 to deduce pOH or pH * Determine suitable indicator for certain acid-base reactions * Use the pH scale to differentiate acidic, neutral and basic pH ranges and report on process and results |
| TopicIntroduction | The color of hydrangea flowers can vary depending on the pH of the soil. Blue flowers usually come from acidic soil with a pH less than 6, and pink flowers come from soil with a pH above 6. |
| Catch | Catch phrase for the lesson |
| Learners notes 1  Learners notes | Summary  **pH** and **pOH** denote the negative log of the concentration of hydrogen or hydroxide ions. High **pH** means that a solution is basic while high **pOH** means that a solution is acidic. Neutral solutions have **pH** and **pOH** of 7.  **pH** and **pOH** are the log concentrations of protons and hydroxide ions, respectively. The sum of **pH** and **pOH** is always **14**. This is because the product of proton concentration and hydroxide concentration must always **equal** the equilibrium constant for the ionization of water, which is **equal** to. So **pH** is the measure of hydrogen ion concentration, [H+], while **pOH** is a measure of the hydroxide ion concentration, [OH-]. The scales for both are 1-14. So remember that **pH**+**pOH**=14.  For example, Given pH =4.42, Find pOH. Need to use the expression pOH = 14 – pH. Now substitute the known quantity into the equation and solve. pOH=14−4.42=9.58. The pH is that of an acidic solution, and the resulting pOH is the difference after subtracting from 14.  Below are the list of suitable indicators used in acid-base reaction :    pH ranges |
|  | * Introduction to pH, pOH and pKW by Khan Academy <https://www.youtube.com/watch?v=2q4vSKwaBtw> * Difference between pH, pOH and pKw by Shawn Shields <https://www.youtube.com/watch?v=d_12-95d0GE> |
|  | 1. What is the pH of a 0.0235 M HCl solution ? 2. What is the pOH of a 0.0235M HCl solution ? 3. What is the pH of a 6.2 x 10-5 M NaOH solution ? 4. List four common indicators suitable for certain acid-base reactions 5. Draw pH scale locating acid, base, neutral, strong and weak acid, strong and weak base. |
| Assignment |  |
| Assessment | Written test on week 9 of term 2 |
| Reference ClipartReferences | * <https://sciencing.com/how-to-calculate-ph-and-poh-13710435.html> * <https://vlab.amrita.edu/?sub=2&brch=193&sim=352&cnt=1> |



**WEEKLY CHECKLIST For Parents**:

Term: 2 Week number 1 Date…… to…… Month: …………

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Subject** | **Number of lessons** | **Days** | **Tick when activity is complete** | **Parents comment** | **Signature** |
|  | **1** |  |  |  |  |
|  | **2** |  |  |  |  |
|  | **3** |  |  |  |  |
|  | **4** |  |  |  |  |
|  | **5** |  |  |  |  |
|  | **6** |  |  |  |  |

Term: 2 Week number 2 Date…… to…… Month: …………

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| **Subject** | **Number of lessons** | **Days** | **Tick when activity is complete** | **Parents comment** | **Signature** |
|  | **1** |  |  |  |  |
|  | **2** |  |  |  |  |
|  | **3** |  |  |  |  |
|  | **4** |  |  |  |  |
|  | **5** |  |  |  |  |
|  | **6** |  |  |  |  |

Term: 2 Week number 3 Date…… to…… Month: …………

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| **Subject** | **Number of lessons** | **Days** | **Tick when activity is complete** | **Parents comment** | **Signature** |
|  | **1** |  |  |  |  |
|  | **2** |  |  |  |  |
|  | **3** |  |  |  |  |
|  | **4** |  |  |  |  |
|  | **5** |  |  |  |  |
|  | **6** |  |  |  |  |

Term: 2 Week number 4 Date…… to…… Month: …………

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| --- | --- | --- | --- | --- | --- |
| **Subject** | **Number of lessons** | **Days** | **Tick when activity is complete** | **Parents comment** | **Signature** |
|  | **1** |  |  |  |  |
|  | **2** |  |  |  |  |
|  | **3** |  |  |  |  |
|  | **4** |  |  |  |  |
|  | **5** |  |  |  |  |
|  | **6** |  |  |  |  |

Term: 2 Week number 5 Date…… to…… Month: …………

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| **Subject** | **Number of lessons** | **Days** | **Tick when activity is complete** | **Parents comment** | **Signature** |
|  | **1** |  |  |  |  |
|  | **2** |  |  |  |  |
|  | **3** |  |  |  |  |
|  | **4** |  |  |  |  |
|  | **5** |  |  |  |  |
|  | **6** |  |  |  |  |

Term: 2 Week number 6 Date…… to…… Month: …………

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Subject** | **Number of lessons** | **Days** | **Tick when activity is complete** | **Parents comment** | **Signature** |
|  | **1** |  |  |  |  |
|  | **2** |  |  |  |  |
|  | **3** |  |  |  |  |
|  | **4** |  |  |  |  |
|  | **5** |  |  |  |  |
|  | **6** |  |  |  |  |

Term: 2 Week number 7 Date…… to…… Month: …………

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| **Subject** | **Number of lessons** | **Days** | **Tick when activity is complete** | **Parents comment** | **Signature** |
|  | **1** |  |  |  |  |
|  | **2** |  |  |  |  |
|  | **3** |  |  |  |  |
|  | **4** |  |  |  |  |
|  | **5** |  |  |  |  |
|  | **6** |  |  |  |  |

Term: 2 Week number 8 Date…… to…… Month: …………

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| **Subject** | **Number of lessons** | **Days** | **Tick when activity is complete** | **Parents comment** | **Signature** |
|  | **1** |  |  |  |  |
|  | **2** |  |  |  |  |
|  | **3** |  |  |  |  |
|  | **4** |  |  |  |  |
|  | **5** |  |  |  |  |
|  | **6** |  |  |  |  |

Term: 2 Week number 9 Date…… to…… Month: …………

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| **Subject** | **Number of lessons** | **Days** | **Tick when activity is complete** | **Parents comment** | **Signature** |
|  | **1** |  |  |  |  |
|  | **2** |  |  |  |  |
|  | **3** |  |  |  |  |
|  | **4** |  |  |  |  |
|  | **5** |  |  |  |  |
|  | **6** |  |  |  |  |

Term: 2 Week number 10 Date…… to…… Month: …………

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| **Subject** | **Number of lessons** | **Days** | **Tick when activity is complete** | **Parents comment** | **Signature** |
|  | **1** |  |  |  |  |
|  | **2** |  |  |  |  |
|  | **3** |  |  |  |  |
|  | **4** |  |  |  |  |
|  | **5** |  |  |  |  |
|  | **6** |  |  |  |  |

Term: 2 Week number 11 Date…… to…… Month: …………

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| **Subject** | **Number of lessons** | **Days** | **Tick when activity is complete** | **Parents comment** | **Signature** |
|  | **1** |  |  |  |  |
|  | **2** |  |  |  |  |
|  | **3** |  |  |  |  |
|  | **4** |  |  |  |  |
|  | **5** |  |  |  |  |
|  | **6** |  |  |  |  |

Term: 2 Week number 12 Date…… to…… Month: …………

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| **Subject** | **Number of lessons** | **Days** | **Tick when activity is complete** | **Parents comment** | **Signature** |
|  | **1** |  |  |  |  |
|  | **2** |  |  |  |  |
|  | **3** |  |  |  |  |
|  | **4** |  |  |  |  |
|  | **5** |  |  |  |  |
|  | **6** |  |  |  |  |

Term: 2 Week number 13 Date…… to…… Month: …………

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Subject** | **Number of lessons** | **Days** | **Tick when activity is complete** | **Parents comment** | **Signature** |
|  | **1** |  |  |  |  |
|  | **2** |  |  |  |  |
|  | **3** |  |  |  |  |
|  | **4** |  |  |  |  |
|  | **5** |  |  |  |  |
|  | **6** |  |  |  |  |