| AECHE2024  **Narrogin SHS Year 11 ATAR CHEMISTRY**  Name: | |
| --- | --- |
| Task No: | 4 |
| Task Type: | Extended Response |
|  |  |
| Content: | Chromatography |
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| Task Description: | Research different types of chromatography   1. Define chromatography and briefly explain its basic principles 2. Research gas chromatography, high performance liquid chromatography and thin layer chromatography; for each identify the mobile phase, stationary phase, method of detection and one application of this process. 3. Research one other type of chromatography, such as ion exchange, gel filtration/molecular exclusion or affinity chromatography and briefly describe how it works and what it is used for.   Two periods - in class only  *You will complete an in class validation on this content.* |
| Total Marks: | 22 |
| Weighting: | 2% |
| Due Date: | Monday 26 August 2024 |

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| Marking Requirement: | | Mark Allocation | Mark |
| Definition | * Define chromatography * Refer to separation of components based on variation in strength of interactions between atoms, molecules or ions in the mobile and stationary phases * Define mobile, stationary and detection phase | 3 |  |
| Gas chromatography | * Include a diagram or description * Identify the mobile phase * Identify the stationary phase * Identify the detection phase * Briefly describe one current application | 5 |  |
| HPLC | * Include a diagram or description * Identify the mobile phase * Identify the stationary phase * Identify the detection phase * Briefly describe one current application | 5 |  |
| TLC | * Include a diagram or description * Identify the mobile phase * Identify the stationary phase * Identify the detection phase * Briefly describe one current application | 5 |  |
| Other | * Briefly describe technique * Briefly describe one application | 2 |  |
|  | * References (at least 4 and in suitable format) | 2 |  |
|  |  | Total /22 |  |

References suitable format:

APA formatting

[Reference examples (apa.org)](https://apastyle.apa.org/style-grammar-guidelines/references/examples)