|  |  |
| --- | --- |
| Name: | Areas: |
| Assessment Task |
| ExpectationsA1. demonstrate scientific investigation skills (related to both inquiry and research) in the four areas of skills (initiating and planning, performing and recording, analysing and interpreting, and communicating) C3. demonstrate an understanding of the diversity of microorganisms and the relationships that exist between them C2. investigate the development and physical characteristics of microorganisms, using appropriate laboratory equipment and techniques  |
| **Categories** | **Level 1** | **Level 2** | **Level 3** | **Level 4** |
| **Knowledge and Understanding**  |
| *(KU1)* ***Knowledge of content*** * Security principles in the laboratory
* The structure of microorganisms
 | Demonstrates limited knowledge of content | Demonstrates some knowledge of content | Demonstrates considerable knowledge of content | Demonstrates thorough knowledge of content |
| *(KU2)* ***Understanding of content*** * The roles of microorganisms
* Phylogeny principles
 | Demonstrates limited understanding of content | Demonstrates some understanding of content | Demonstrates considerable understanding of content | Demonstrates thorough understanding of content |
| **Thinking** |
| *(T1)* ***Use of planning skills**** Identifies each section of the report according to the standards
* Presents all the requested elements
* Completes all the components within the allotted time
 | Uses planning skills with limited effectiveness | Uses planning skills with some effectiveness | Uses planning skills with considerable effectiveness | Uses planning skills with a high degree of effectiveness |
| *(T2)* ***Use of processing skills**** Analyzes their results to find the appropriate conditions for the growth of the microorganisms
 | Uses processing skills with limited effectiveness | Uses processing skills with some effectiveness | Uses processing skills with considerable effectiveness | Uses processing skills with a high degree of effectiveness |
| *(T3)* ***Use of critical/creative thinking processes*** * Deduces the link between the growth of microorganisms and the production of cheese
* Returns on the goal of the laboratory (conclusion)
* Justifies his position using theory and his research
 | Uses critical/creative thinking processes with limited logic | Uses critical/creative thinking processes with some logic | Uses critical/creative thinking processes with considerable logic | Uses critical/creative thinking processes with a high degree of logic |
| **Communication** |
| *(OC1)* ***Expression and organization of ideas and information**** Presents his drawings on blank paper, respecting the organization of spaces
 | Expresses and organizes ideas and information with limited effectiveness | Expresses and organizes ideas and information with some effectiveness | Expresses and organizes ideas and information with considerable effectiveness | Expresses and organizes ideas and information with a high degree of effectiveness |
| *(OC2)* ***Expression and organization of ideas and information in oral, visual, and written forms and for different audiences and purposes**** Respects the requested format (Title, legend, magnification, coordinate)
	+ Large and centered diagram
	+ Line sharpness
	+ Smoothness of layout
	+ Aligned annotations
	+ Choice of patterns (legend)
* Respects the format requested for a laboratory report (title, names and dates, introduction, purpose, hypotheses, variables, material, safety, method, modifications, observations, analysis and conclusion)
 | Communicates for different audiences and purposes with limited effectiveness | Communicates for different audiences and purposes with some effectiveness | Communicates for different audiences and purposes with considerable effectiveness | Communicates for different audiences and purposes with a high degree of effectiveness |
| *(OC3)* ***Use of conventions, vocabulary, and terminology**** Uses field vocabulary
* Uses a neutral tone (no first-person pronoun) in the presentation of results and analysis
* Uses a personal pronoun (I or we) for their conclusion
 | Uses conventions, vocabulary, and terminology of the discipline with limited effectiveness | Uses conventions, vocabulary, and terminology of the discipline with some effectiveness | Uses conventions, vocabulary, and terminology of the discipline with considerable effectiveness | Uses conventions, vocabulary, and terminology of the discipline with a high degree of effectiveness |
| **Application** |
| *(A1)* ***Application of knowledge and skills in familiar contexts**** In the production of the biological drawing:
	+ Respect of proportion (faithful representation of the model)
	+ The identification lines are drawn with a ruler
	+ The identification lines do not cross
	+ The annotations are specific and valid
	+ Large and centered diagram
	+ Line sharpness
	+ Smoothness of the layout
	+ Aligned annotations
	+ Choice of patterns (legend)
 | Applies knowledge and skills in familiar contexts with limited effectiveness | Applies knowledge and skills in familiar contexts with some effectiveness | Applies knowledge and skills in familiar contexts with considerable effectiveness | Applies knowledge and skills in familiar contexts with a high degree effectiveness |
| *(A2)* ***Transfer of knowledge and skills to new contexts**** Use the microscope by following all the steps safely
	+ Initial verification
	+ Blade position (centered)
	+ Starting point
	+ Settings (procedure, debugging)
	+ Lighting (homogeneous, strength)
	+ Objective (choice)
	+ Storage (restored to initial state)
 | Transfers knowledge and skills to new contexts with limited effectiveness | Transfers knowledge and skills to new contexts with some effectiveness | Transfers knowledge and skills to new contexts with considerable effectiveness | Transfers knowledge and skills to new contexts with a high degree of effectiveness |
| *(A3)* ***Making connections within and between various contexts**** Makes a link between the organisms observed and the characteristics of the species
* Makes a link between detection measures, safety and health
* Establishes links between environmental conditions and the maintenance of an ecosystem
 | Makes connections within and between various contexts with limited effectiveness | Makes connections within and between various contexts with some effectiveness | Makes connections within and between various contexts with considerable effectiveness | Makes connections within and between various contexts with a high degree of effectiveness |