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|  Subject: Biology  | Areas: Cellular Biology  | Year of study: 11th grade | Student: | Level: College preparation  | Date:  |
| Assessment task: Laboratory |
| Expectations: B1. Evaluate the impact of environmental factors and medical technologies on certain cellular processes that occur in the human body;B2. Investigate the structures and functions of cells, and the factors that influence cellular activity, using appropriate laboratory equipment and techniques;B3. Demonstrate an understanding of the basic processes of cellular biology. | Comments (strengths, points of improvement, next steps): |

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| **Categories** |  | **Level 1** |  | **Level 2** |  | **Level 3** |  | **Level 4** |
| **Knowledge and Understanding**  |  | **The student:** |  |  |  |  |  |  |
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| (KU 1) Knowledge of content* enzymatic processes.
 |  | – Demonstrates limited knowledge - Demonstrates some knowledge - Demonstrates considerable - Demonstrates thorough  of content of content knowledge of content knowledge of content   |

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| **Thinking Skills**  |  | **The student:** |  |  |  |  |  |  |
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| (TS 1) Use of planning skills* formulates a hypothesis that addresses the purpose of the laboratory;
* identifies the independent, dependent and controlled variables.
 |  | – Uses planning skills with – Uses planning skills with – Uses planning skills with – Uses planning skills with limited effectiveness some effectiveness considerable effectiveness a high degree of  effectiveness  |

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| (TS 2) Use of information processing skills * uses appropriate websites;
* selects relevant information to summarize;
* analyzes results to find appropriate conditions for enzyme function;
* makes appropriate recommendations to increase enzyme performance;
* indicates references.
 |  | – Uses processing skills with – Uses processing skills with – Uses processing skills with – Uses processing skills with  limited effectiveness some effectiveness considerable effectiveness a high degree of  effectiveness  |

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| (TS 3) Use of critical thinking and creative thinking processes * determines a specific method to test their hypothesis;
* provides feedback on the purpose of the lab;
* validates or invalidates their hypothesis;
* identifies sources of error.
 |  | – Uses critical/creative thinking – Uses critical/creative thinking – Uses critical/creative thinking – Uses critical/creative thinking  processes with limited processes with some processes with considerable processes with a high degree  effectiveness effectiveness effectiveness of effectiveness  |

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| **Communication** |  | **The student:** |  |  |  |  |  |  |
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| (OC 1) Expressing and organizing ideas and information:* presents data in observation tables.
 |  | – Expresses and organizes ideas – Expresses and organizes ideas – Expresses and organizes ideas – Expresses and organizes  and information with limited and information with some and information with ideas and information with effectiveness effectiveness considerable effectiveness a high degree of effectiveness |

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| (OC 2) Communicating ideas and information, orally, in writing and visually, for specific purposes and specific audiences :* follows the format required for observation charts (title, title bar, line...);
* follows the format required for a laboratory report (title, names and dates, introduction, purpose, hypotheses, variables, materials, safety, method, modifications, observations, analysis and conclusion);
* reframes the information in their own words.
 |  | – Communicates for different audiences – Communicates for different audiences – Communicates for different – Communicates for different and purposes with limited effectiveness and purposes with some effectiveness audiences and purposes with audiences and purposes with considerable effectiveness a high degree of effectiveness |

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| (OC 3) Use of conventions, vocabulary, and terminology:* uses vocabulary linked to biology;
* uses language conventions.
 |  | – Uses conventions, vocabulary, and – Uses conventions, vocabulary, and – Uses conventions, vocabulary, and – Uses conventions, vocabulary,  terminology of the discipline with terminology of the discipline with terminology of the discipline with and terminology of the  limited effectiveness some effectiveness considerable effectiveness discipline with a high degree effectiveness  |

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| **Application** |  | **The student:** |  |  |  |  |  |  |
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| (A 1) Application of knowledge and skills in familiar contexts* identifies appropriate safety rules;
* collects data.
 |  | – Applies knowledge and skills to – Applies knowledge and skills to – Applies knowledge and skills to – Applies knowledge and skills  familiar contexts with limited familiar contexts with some familiar contexts with to familiar contexts with a high effectiveness effectiveness considerable effectiveness degree of effectiveness  |

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| (A 2) Transfer of knowledge and skills to new contexts* devises a laboratory protocol;
* selects the necessary material.
 |  | – Transfers knowledge and skills to – Transfers knowledge and skills to – Transfers knowledge and skills to – Transfers knowledge and skills  new contexts with limited new contexts with some new contexts with considerable to new contexts with a high  effectiveness effectiveness effectiveness degree of effectiveness  |

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| (A 3) Making connections * makes a connection between the conditions (temperature, pH, quantity of reagents…) and curd yield
 |  | – Makes connections within and – Makes connections within and – Makes connections within and – Makes connections within and between various contexts with between various contexts with between various contexts with between various contexts with limited effectiveness some effectiveness considerable effectiveness a high degree of effectiveness  |

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