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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:** |  |  |  |  |  |  |
| |  |  |  | | --- | --- | --- | | (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 | | | | | | | | | |
| **Thinking Skills** |  | **The student:** |  |  |  |  |  |  |
| |  |  |  | | --- | --- | --- | | (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 |  |  |  |  | | --- | --- | --- | | (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 |  |  |  |  | | --- | --- | --- | | (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 | | | | | | | | | |
| **Communication** |  | **The student:** |  |  |  |  |  |  |
| |  |  |  | | --- | --- | --- | | (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 |  |  |  |  | | --- | --- | --- | | (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 |  |  |  |  | | --- | --- | --- | | (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 | | | | | | | | | |
| **Application** |  | **The student:** |  |  |  |  |  |  |
| |  |  |  | | --- | --- | --- | | (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 |  |  |  |  | | --- | --- | --- | | (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 |  |  |  |  | | --- | --- | --- | | (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 | | | | | | | | | |