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|  | **4**  **Exceeds Expectations**  Demonstrates with mastery  (exceeds) | **3**  **Meets Expectations**  Independently demonstrates  (meets) | **2**  **Approaching Expectations**  Demonstrates with support  (progressing) | **1**  **Does Not Meet Expectations**  Not demonstrated at this time  (area of concern) |
| **Uses scientific inquiry to observe, record, make connections, draw and discuss conclusions** | Precisely and appropriately uses scientific inquiry (Questions, Predicts, Hypothesizes, Experiments, Observes, and Concludes, Evaluates) to organize and display information  Interpretation of data supports conclusions; Connections raise new questions or are applied to new contexts  A clear, effective explanation is presented | Effectively uses scientific inquiry (Questions, Predicts, Hypothesizes, Experiments, Observes, and Concludes, Evaluates) to organize and display information  Appropriately uses data to make connections and support conclusions  A clear explanation is presented | Attempts to use scientific inquiry (Questions, Predicts, Hypothesizes, Experiments, Observes, and Concludes, Evaluates) to organize and display information (Some missing or incomplete information)  Conclusions do not support or partially support data  An incomplete explanation or unclear explanation is presented | Does not use or inappropriately uses scientific inquiry (Questions, Predicts, Hypothesizes, Experiments, Observes, and Concludes, Evaluates) to organize and display information  (Few parts are completed)  No conclusions are stated or no data is recorded  The explanation cannot be understood, is unrelated to the task investigation, or no explanation is presented |

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|  | **4**  **Exceeds Expectations**  Demonstrates with mastery  (exceeds) | **3**  **Meets Expectations**  Independently demonstrates  (meets) | **2**  **Approaching Expectations**  Demonstrates with support  (progressing) | **1**  **Does Not Meet Expectations**  Not demonstrated at this time  (area of concern) |
| **Identifies how living organisms carry out basic life functions, respond to change, and are interdependent with the living and nonliving environment** | Provides evidence of in-depth, sophisticated understanding of relevant scientific concepts, principles or theories of basic life functions and interdependence  Example: compares, contrasts, and evaluates living organism’s basic functions, responses to change, and interdependence with the living and nonliving environment. (plant and animal cells, habitats, ecosystems)  Precisely and appropriately uses and applies scientific terminology | Provides evidence of understanding of relevant scientific concepts, principles or theories of basic life functions and interdependence  Example: compares, contrasts, and evaluates living organism’s basic functions, responses to change, and interdependence with the living and nonliving environment. (plant and  animal cells, habitats, ecosystems)  Precisely and appropriately uses and applies scientific terminology | Provides some evidence of understanding of relevant scientific concepts, principles or theories of basic life functions and interdependence  Example: compares, contrasts, and evaluates living organism’s basic functions, responses to change, and interdependence with the living and nonliving environment. (plant and  animal cells, habitats, ecosystems)  Uses some relevant scientific terminology and little or no application of terminology | Provides minimal or no evidence of understanding of relevant scientific concepts, principles or theories of basic life functions and interdependence  Example: compares, contrasts, and evaluates living organism’s basic functions, responses to change, and interdependence with the living and nonliving environment. (plant and  animal cells, habitats, ecosystems)  Minimal or no use of relevant scientific terminology; inappropriate use of scientific terminology |
| **Demonstrates an understanding of the properties and interactions of matter and energy** | Uses scientific reasoning to demonstrate a sophisticated understanding of the principles of matter and energy  (Example: matter and energy unit)  Precisely and appropriately uses and applies scientific terminology | Uses scientific reasoning to demonstrate an understanding of the principles of matter and energy  (Example: matter and energy unit)  Appropriately uses and applies scientific terminology. | Uses scientific reasoning to demonstrate a partial understanding of the principles of matter and energy  (Example: matter and energy unit)  Uses some relevant scientific terminology and little or no application of terminology. | Uses scientific reasoning to demonstrate minimal or no understanding of the principles of matter and energy  (Example: matter and energy unit)  Minimal or no use of relevant scientific terminology; inappropriate use of scientific terminology. |