Participant # \_\_\_\_\_\_\_\_\_\_\_\_\_ Form **B** Coding Sheet

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| **Excerpt** | **Correct Identifier**  **(indicates corresponding matrix practice – do not code as wrong if missing)** | **Teacher Identified** | **Totals**  **CT: correct/partial/wrong/missed**  **DP: correct/partial/wrong/missed**  **Key at bottom** |
| “In your science class, Edwin is going to conduct an investigation to determine the environmental conditions that lead to the greatest number of germinated mung bean seeds. In the investigation, Edwin is given 120 mung bean seeds, paper towels, zippered plastic bags, jars, water, and light sources.” | None |  |  |
| “Edwin knows that water has something to do with the sprouting process, but he is not sure how much water is involved.” | Abstraction (CT)– the process of different conditions helps Edwin abstract at the end |  |  |
| “He thinks about the possible conditions that he can produce for the beans in 2 days and proceeds with the following plan.” | Decomposition (CT) |  |  |
| “Edwin takes 60 mung bean seeds and soaks them overnight. He allows the other 60 mung beans to stay dry overnight. In the morning, Edwin drains the water from the soaked mung beans and divides these 60 beans into 6 piles of 10 beans. He also divides up the 60 unsoaked beans into 6 piles of 10 beans.” | Creating Data - DP  Algorithmic Thinking - CT  Only log Creating Data and Algorithmic Thinking one time if mentioned along with next segment. |  |  |

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| “He takes 2 jars of 10 soaked beans and soaks them in water again. He does the same with 2 jars of 10 unsoaked beans. He places one jar of previously soaked beans and one jar of unsoaked beans in the dark and one of each in the light to sit for 24 hours.  He then prepares 2 sets of 10 soaked beans and 2 sets of 10 unsoaked beans in rolled up wet paper towels and places them in jars. From the paper towel prepared jars, he places one jar of previously soaked beans and one jar of unsoaked beans in the dark and one of each in the light to sit for 24 hours. He prepares 2 sets of 10 soaked beans and 2 sets of 10 unsoaked beans in dry jars. From the dry jars, he places one jar of previously soaked beans and one jar of unsoaked beans in the dark and one of each in the light to sit for 24 hours. | Creating Data (DP)  Algorithmic Thinking (CT) |  |  |

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| “After 24 hours pass, he counts out the number of beans that have germinated from each of the 12 conditions and…” | Creating Data (DP) |  |  |
| “…records the number of germinated seeds in an Excel spreadsheet.” | Collecting Data (DP)  Automation (CT) |  |  |
| “He performs the same procedures for a total of three trials of the 12 conditions.” | Creating Data - DP  Algorithmic Thinking - CT |  |  |
| “He compares the resulting number of germinated seeds for the three trials from each condition and notices that the beans that soaked overnight and were placed in the dark underwater had three very different numbers…” | Manipulating (DP)  Pattern Recognition (CT)  Abstraction (CT) - data is not matching his expectations/evaluating outliers. |  |  |
| “…so he performs this condition again.” | Collecting Data (DP) |  |  |
| “The second time, his numbers were similar.” | Pattern Recognition (CT) |  |  |
| “He then finds the average and range of numbers…” | Analyzing – DP  Automation - CT |  |  |
| “…and plots them on a box and whiskers plot.” | Visualizing – DP  Automation – only record once with previous |  |  |
| “He notices that the soaked beans placed in the dark with the paper towel had the highest yield of germinated seeds…” | Analyzing - DP  Pattern Finding - CT |  |  |
| “…and concludes that soaking mung beans and then placing them in a wet paper towel in the dark is the condition that yields the highest germination.” | Abstraction - CT  Analyzing - DP |  |  |
| Totals: | CT: 10  Decomposition = 1  Pattern Recognition = 3  Abstraction = 3  Algorithm = 1  Automation = 2  DP: 11  Creating = 3  Collecting = 2  Manipulating = 1  Visualizing = 2  Analyzing = 3 |  | CT:  DP: |

Correct: Participant highlighted a sentence and identified the correct corresponding computational thinking or data practice.

Partial: Participant highlighted a sentence and identified several computational thinking or data practices within the sentence one of which may have been correct, however the others were incorrect OR participant highlighted a paragraph and identified one correct computational thinking or data practice within the paragraph but missed several others.

Wrong: Participant identified the wrong computational thinking or data practice within the sentence that was highlighted.

Missed: Participant did not identify a computational thinking or data practice that was present in a particular sentence.