SCILLSS Classroom Science Assessment Workshop

## Grade 5 Partially Completed Unpacking Tool

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| **Grade:** | 5 |  |  | |
| **NGSS Performance Expectation: 5-ESS1-2.** Represent data in graphical displays to reveal patterns of daily changes in the length and direction of shadows, day and night, and the seasonal appearance of some stars in the night sky. | | | | |
|  | **Science and Engineering Practices (SEP)** | **Disciplinary Core Ideas (DCI)** | **Crosscutting Concepts (CCC)** | |
| **SEP:** **Analyzing and Interpreting Data**  Represent data in graphical displays (bar graphs, pictographs and/or pie charts) to reveal patterns that indicate relationships. | **DCI:** **ESS1.B: Earth and the Solar System**  The orbits of Earth around the sun and of the moon around Earth, together with the rotation of Earth about an axis between its North and South poles, cause observable patterns. These include day and night; daily changes in the length and direction of shadows; and different positions of the sun, moon, and stars at different times of the day, month, and year. | **CCC:** **Patterns**  Similarities and differences in patterns can be used to sort, classify, communicate and analyze simple rates of change for natural phenomena. | |
| **Key Aspects** | * Organize data. * Analyze data to make sense of phenomena. * Use a variety of graphical displays to reveal patterns. | * As Earth moves around the sun and rotates on its axis, changes such as patterns of night and day can be observed. * There are daily changes in the length of day and night. | * Similarities in patterns can be used to sort simple rates of change (natural phenomena and designed products). * Differences in patterns can be used to classify simple rates of change (natural phenomena and designed products). | |
| **Prior Knowledge** | * Record information (observations, thoughts, and ideas). * Analyze data. | * There are patterns in the rising and setting of the sun and the moon. * At different times of the year there are different amounts of daylight. | **Relationships to SEPs** | * Recognizing patterns in data. * Use observations to describe patterns and/or   relationships in the natural and designed world(s) in order to answer scientific questions and solve problems. |

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