| | Concepts and practices | 3 | 2 | 1 |
|-------------------------|---|--------------------|--------------------|--------------------|
| | ESS1.A Patterns of the | Students draw | Students draw | Students can |
| | motion of the Sun, Moon, | the Sun in five | the Sun in the | draw the five |
| | and stars in the sky can be | positions in the | five positions and | positions of the |
| | observed, described, and | sky, can describe | can describe the | Sun, but cannot |
| | predicted. (NGSS p. 14) | the pattern as an | pattern as an arc, | describe the |
| | | arc, and can | but cannot | pattern or predict |
| | | predict another | predict another | the Sun's |
| | | position of the | position of the | position at |
| eas | | Sun along the | Sun along the | another point |
| ide | | arc. | arc. | along the arc. |
| lre | ESS1.B Seasonal patterns | Students say they | Students say they | Students say they |
| 00 | of sunrise and sunset can be | drew the Sun | drew the Sun | drew the Sun |
| ary | observed, described, and | having a lower | having a lower | having a lower |
| in; | predicted. (NGSS p. 14) | and shorter arc | and shorter arc | and shorter arc |
| lqi | r · · · · · · · · · · · · · · · · · · · | pattern in the | pattern in the | pattern in the |
| Disciplinary core ideas | | winter because | winter because | winter but they |
| П | | there are less | there are less | cannot tell you |
| | | hours of daylight | hours of daylight | why and cannot |
| | | in the winter. | in the winter; but | predict the |
| | | They can predict | they cannot | Summer pattern. |
| | | the summer | predict the | - |
| | | pattern as being a | summer pattern | |
| | | higher and longer | as being a higher | |
| | | arc. | and longer arc. | |
| | Analyzing and interpreting | Students analyze | With guidance, | Students need to |
| | data | their daylight | students analyze | be told that there |
| | | pattern data to | their daylight | is more daylight |
| S | | correctly | pattern data to | in the summer |
| Practices | | interpret that | correctly | compared to the |
| act | | there is more | interpret that | spring. |
| | | daylight in the | there is more | |
| ng | | summer | daylight in the | |
| eri | | compared to the | summer | |
| ine | | winter. | compared to the | |
| gu | | | winter. | |
| Science and Engineering | Developing models | Students develop | Students develop | Students cannot |
| and | | a model of the | a model of the | develop a model |
| ce | | Sun's pattern of | Sun's pattern of | of the Sun's |
| en | | motion in the | motion in the | pattern of motion |
| Sci | | spring that is | winter but have | in the sky. |
| | | clearly longer | difficulty adding | |
| | | than the Sun's | spring to this | |
| | | pattern of motion | same model. | |
| | | in the winter. | | |

| ts | Patterns | Students draw | Students draw | Students do not |
|--------------|----------|-----------------|-------------------|------------------|
| eb | | the Sun in five | most of the Suns, | draw enough |
| concepts | | positions that | but may draw | different |
| - | | form an arc | straight lines | positions of the |
| ing | | pattern in the | from sunrise to | Sun to make a |
| utt | | sky. | noon or noon to | pattern. |
| Crosscutting | | | sunset. | |
| LO | | | | |
| С | | | | |