✓ 20/20

Sunlight Intensity and the Seasons

Record your data in the table below for each of the four seasons. The fifth column represents a recurrence of the first and the cycle is repeated

| Season Name | Spring | Summer | Fall | Winter | Spring |
|---|---|---|---|---|---|
| Amount of sunlight | 1 | 1 | 1 | 1 | 1 |
| Equatorial area | 1.43 | 1.5 | 1.32 | 1.32 | 1.43 |
| Amount of sunlight per unit area | .699 | .667 | .758 | .758 | .699 |
| Amount of sunlight | 1 | 1 | 1 | 1 | 1 |
| Mid or upper latitude area | 2.16 | 1.82 | 1.5 | 2.75 | 2.16 |
| Amount of sunlight per unit area | .463 | .549 | .667 | .364 | .463 |

1. Is there a variation in the amount of sunlight per unit area in the equatorial regions?

   Why or why not? Yes, because the tilt of the sun changes throughout each season.

2. Is there a variation in the amount of sunlight per unit area in the mid latitude regions

   over the four seasons? If so describe the variation. yes, the variations were much more dramatic than that of the equatorial.

3. How does the mid latitude variation correspond to your knowledge of the seasons? The variation is larger because the seasons change with the tilt & the tilt is more drastic in the mid or upper latitude areas.
4. What is the connection between the amount of sunlight per unit area and the seasons? The amount of sunlight per area increases when the tilt is further away because there is more surface area to cover.
5. Why does the middle of each season seem to represent the identifiable weather in

   terms of temperature? Because the tilt is gradual, so by the middle of the season, the tilt is complete in regards to the current season, so the sun is lined up directly where it should be. In the beginning, it is just starting to tilt & towards the end, it is starting to tilt for the next season, therefore the middle has the most identifiable weather in terms of temperature.