



reproduction in the new environment become more common; those that do not become less common. Thus, the distribution of traits in a population changes.

Discussion how animals respond to eclipse

Discuss in terms of natural response to stimulus

## Math

### Grade 6

PS.4: Model with mathematics. Mathematically proficient students apply the mathematics they know to solve problems arising in everyday life, society, and the workplace using a variety of appropriate strategies. They create and use a variety of representations to solve problems and to organize and communicate mathematical ideas. Mathematically proficient students apply what they know and are comfortable making assumptions and approximations to simplify a complicated situation, realizing that these may need revision later. They are able to identify important quantities in a practical situation and map their relationships using such tools as diagrams, two-way tables, graphs, flowcharts, and formulas. They analyze those relationships mathematically to draw conclusions. They routinely interpret their mathematical results in the context of the situation and reflect on whether the results make sense, possibly improving the model if it has not served its purpose.

Talk about how mathematical models of the solar system naturally predict eclipses and allow us to predict the time and place of an eclipse 100s of years in the future.

6.GM.1 Convert between measurement systems (Customary to metric and metric to Customary) given the conversion factors, and use these conversions in solving real-world problems.

Talk about conversions from astronomical units (AU) to km, use to talk about Sun-Earth distance and Earth-Moon distance and how it is related to eclipses

### Grade 7

7.RP.3 Represent real-world and other mathematical situations that involve proportional relationships. Write equations and draw graphs to represent these proportional relationships. Apply the definition of unit rate to  $y = mx$ .

Ratio between Sun/moon size and Sun/moon distance and how that causes them to be the same size in our sky

7.GM.2 Understand the formulas for area and circumference of a circle and use

