**Kinesthetic Astronomy and Sky Time**

**Connections to the Common Core Standards in Mathematics**

Novice:

[CCSS.MATH.CONTENT.6.EE.B.6](http://www.corestandards.org/Math/Content/6/EE/B/6/)
Use variables to represent numbers and write expressions when solving a real-world or mathematical problem; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set.

[CCSS.MATH.CONTENT.7.EE.B.4](http://www.corestandards.org/Math/Content/7/EE/B/4/)
Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities.

Intermediate:

[CCSS.MATH.CONTENT.6.RP.A.1](http://www.corestandards.org/Math/Content/6/RP/A/1/)
Understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities.

[CCSS.MATH.CONTENT.7.RP.A.2](http://www.corestandards.org/Math/Content/7/RP/A/2/)
Recognize and represent proportional relationships between quantities.

Expert:

[CCSS.MATH.CONTENT.HSN.Q.A.1](http://www.corestandards.org/Math/Content/HSN/Q/A/1/)
Use units as a way to understand problems and to guide the solution of multi-step problems; choose and interpret units consistently in formulas; choose and interpret the scale and the origin in graphs and data displays.

[CCSS.MATH.CONTENT.HSN.Q.A.2](http://www.corestandards.org/Math/Content/HSN/Q/A/2/)
Define appropriate quantities for the purpose of descriptive modeling.

[CCSS.MATH.CONTENT.HSN.Q.A.3](http://www.corestandards.org/Math/Content/HSN/Q/A/3/)
Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.

[CCSS.MATH.CONTENT.HSA.SSE.A.1](http://www.corestandards.org/Math/Content/HSA/SSE/A/1/)
Interpret expressions that represent a quantity in terms of its context.

[CCSS.MATH.CONTENT.HSA.CED.A.2](http://www.corestandards.org/Math/Content/HSA/CED/A/2/)
Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales.

[CCSS.MATH.CONTENT.HSA.CED.A.4](http://www.corestandards.org/Math/Content/HSA/CED/A/4/)
Rearrange formulas to highlight a quantity of interest, using the same reasoning as in solving equations.

[CCSS.MATH.CONTENT.HSF.IF.B.5](http://www.corestandards.org/Math/Content/HSF/IF/B/5/)
Relate the domain of a function to its graph and, where applicable, to the quantitative relationship it describes.

[CCSS.MATH.CONTENT.HSS.ID.B.6](http://www.corestandards.org/Math/Content/HSS/ID/B/6/)
Represent data on two quantitative variables on a scatter plot, and describe how the variables are related.