

# FAIRBANKS MUSEUM & *planetarium*

## Movements and Rhythms of the Heavens

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*The following instructions represent additional resources for continued study of the topics covered in our "Movement and Rhythms of the Heavens" online class. All materials are the property of Planetarium Director and Senior Meteorologist Mark Breen who created them.*

### **Project:** A Math Exercise

Can you calculate how long it would take for the axis to pivot exactly once? You need more precise information, specifically the change in the position of the stars progresses 1 degree every 71.6 years. You'll need to know how many degrees make up an entire turn.

Using the chart below, can you estimate how long the cycle of the Earth's axis takes to return to the same place? In other words, how far into the future will our north star, Polaris, become the North Star once again?

