

## Sky Quest

1. **DESCRIPTION:** Teams will be tested on their knowledge of the solar system. Topics include the sun, moon, planets, rotation and revolution, moon phases, seasons, space exploration missions and identification of constellations/stars/asterisms based on a provided list.
2. **ESSENTIAL STANDARDS ALIGNMENT:** 1.E.1, 3.E.1, 4.E.1, 6.E.1
3. **TEAM OF UP TO:** 2                      4. **MAXIMUM TIME:** 60 min.
5. **TEAMS:** Must bring writing instruments. No other resources are allowed.
6. **EVENT LEADERS:** Will provide an event with all necessary items, objects, materials, questions, and response sheets for participants to complete exam. Examples include but are not limited to reference charts, posters, and models for the event.
7. **SAFETY REQUIREMENTS:** None                      8. **IMPOUND:** No
9. **THE COMPETITION:** This event will be run in a station format. Teams will rotate through stations that assess any or all of the following topics:
  - a. The Earth/Sun relationship including: rotation and revolution, day/night, shadows, and seasons
  - b. The Earth/Sun/Moon relationship including: phases and relative positions of all three bodies, tides, and both lunar and solar eclipses
  - c. Identification and understanding of the planets in our solar system, how they relate to each other in size, order from the sun, physical properties, and what is unique about each one.
  - d. **Space Exploration, including:**
    - i. **Robots and Probes**
      - Rovers on Mars (Sojourner, Spirit, Opportunity, Curiosity, Perseverance)
      - Voyager 1 & 2
      - Juno
      - New Horizons
    - ii. **Human Spaceflight**
      - Vostok 1
      - Freedom 7 & Friendship 7
      - Apollo 11
      - Space Shuttle program
  - e. Identification of *Major Constellations (Western Starlore)*, their *Alpha stars* and *common Northern Hemisphere asterisms* from the lists below:

***Major Constellations and their Alpha star in parentheses, if noted:***

Aquila (Altair)	Canis Major (Sirius)	Cygnus (Deneb)	Lyra (Vega)	Scorpius (Antares)
Aquarius	Canis Minor (Procyon)	Gemini (Castor and Pollux)	Orion (Betelgeuse)	Taurus (Aldebaran)
Aries	Cassiopeia	Hercules	Pegasus	Ursa Major
Bootes (Arcturus)	Corona Borealis	Leo (Regulus)	Perseus	Ursa Minor (Polaris)

**Northern Hemisphere Asterisms:**

Big & Little Dippers	Great Square of Pegasus	Orion's Belt	Summer Triangle	Winter Triangle
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10. **SCORING:**  
Points will be awarded for the accuracy of responses. Ties will be broken by the accuracy or quality of responses to pre-selected questions chosen by the event leader.