The Starry Starry Night Event has two parts. Both parts take approximately 12 minutes each.

All materials are provided. No outside notes, charts, maps, or other equipment are allowed in the event. Each team will be given the following materials: 1 clipboard, answer sheet, pencils, and red flashlights. Students will complete the one answer sheet together as a team. NO TALKING IN THE DOME—whispers travel across the dome, and other teams can hear your answers!

Both parts will take place inside a planetarium dome (see photo). The questions, images, stars, and constellations are all projected inside the dome, much like the planetarium at the Fleet, but smaller. The projector is computer based. Students are not allowed to talk inside the dome, but can communicate on paper.

Part 1—Space Facts and Information—10-12 questions

Students will be shown an image and a question. They will need to write or draw their answer on the answer sheet. Some questions are one word or short answers. There will be at least two questions that require students to draw a diagram or to write an short explanation. This section is focused on solar system facts—planets, dwarf planets, areas of the solar system, etc., more prominent NASA missions, important astronomers or astrophysicists, and other basic space knowledge.

Part 2—Star and Constellation Identification—18-22 questions

For this part, constellations will be projected in the dome. A laser pointer will be used to point at different constellations and stars. The constellations will be similar to what is in the photo on the left, but without labels.

First we will identify constellations. Then we will identify stars.

See the back for possible topics and references.
## Possible Subject Matter for Starry Starry Night—Not an Exhaustive List

Students will be asked various space knowledge questions and to identify stars and constellations. The general space questions will be pulled from the various areas listed here. Some may require more explanation or diagramming, while others are just identification questions. While many questions may be taken directly from this list, **not everything will be listed here.** The space portion of the test is less straightforward than the star and constellation identification. This is intentional, otherwise we would have a lot of tied scores. We will not give any more specific information beyond what is included on this list.

### Stars

<table>
<thead>
<tr>
<th>Northern hemisphere stars only. Here are POSSIBLE examples:</th>
</tr>
</thead>
<tbody>
<tr>
<td>★ Aldebaran</td>
</tr>
<tr>
<td>★ Alpha Centauri</td>
</tr>
<tr>
<td>★ Altair</td>
</tr>
<tr>
<td>★ Antares</td>
</tr>
<tr>
<td>★ Arcturus</td>
</tr>
<tr>
<td>★ Bellatrix</td>
</tr>
<tr>
<td>★ Betelgeuse</td>
</tr>
<tr>
<td>★ Castor</td>
</tr>
<tr>
<td>★ Deneb</td>
</tr>
</tbody>
</table>

### Solar System Objects and Terms

Identify planets, dwarf planets, major moons, belts, and solar system areas—and some basic facts about them.

A couple POSSIBLE examples: “Explain how Earth is unique compared to the other 7 planets.” or “What is the area of the solar system where Eris located?”

Other terms:

★ Moon phases
★ Eclipses
★ Movement terms and times
★ Various other types of formations in space beyond our solar system

For example: “Draw a diagram of positions of _____ when _____ occurs.” or “What type of formation is this {picture shown}?”

### Constellations

<table>
<thead>
<tr>
<th>Northern hemisphere constellations only. Here are POSSIBLE examples:</th>
</tr>
</thead>
<tbody>
<tr>
<td>★ Aquila</td>
</tr>
<tr>
<td>★ Auriga</td>
</tr>
<tr>
<td>★ Boötes</td>
</tr>
<tr>
<td>★ Canis Major</td>
</tr>
<tr>
<td>★ Cassiopeia</td>
</tr>
<tr>
<td>★ Centaurus</td>
</tr>
<tr>
<td>★ Cepheus</td>
</tr>
<tr>
<td>★ Cygnus</td>
</tr>
<tr>
<td>★ Draco</td>
</tr>
<tr>
<td>★ Hercules</td>
</tr>
</tbody>
</table>

### Space Missions & Spacecraft

Know the name and purpose of the more well-known NASA Missions. Here are some POSSIBLE examples:

★ Apollo
★ Cassini
★ Curiosity
★ Hubble
★ Kepler
★ New Horizons

Others are listed on the NASA missions page (see link below).

### Influential People

Well known astronomers, astrophysicists, or others that had an impact on the field of astronomy and/or space exploration. Know what their major contributions were.

★ Nicolaus Copernicus
★ Galileo Galilei
★ Albert Einstein
★ Nancy Grace Roman
★ Carl Sagan
★ Carolyn Porco

### Sources

- [https://space-facts.com/](https://space-facts.com/)
- [https://www.nasa.gov/](https://www.nasa.gov/)
- [https://www.nasa.gov/missions](https://www.nasa.gov/missions)
- [https://www.nasa.gov/multimedia/imagegallery/index.html](https://www.nasa.gov/multimedia/imagegallery/index.html)
- [http://www.sciencekids.co.nz/astronomy.html](http://www.sciencekids.co.nz/astronomy.html)
- [http://amazingspace.org/](http://amazingspace.org/)
- [https://stardate.org/](https://stardate.org/)
- [https://www.solarsystemquick.com/universe/star-constellations.htm](https://www.solarsystemquick.com/universe/star-constellations.htm)
- [http://www.planetsforkids.org/](http://www.planetsforkids.org/)
- [https://www.amnh.org/explore/ology/astronomy](https://www.amnh.org/explore/ology/astronomy)
- [https://stellarium.org/](https://stellarium.org/) (a downloadable program)
Answer sheet subject to change, based on questions.

Shhhhh! Don’t talk. Use this space to talk by pencil. It won’t count in your score.
Constellations

11. __________________
12. __________________
13. __________________
14. __________________
15. __________________
16. __________________
17. __________________
18. __________________
19. __________________

Answer sheet subject to change, based on questions.

Stars

21. __________________
22. __________________
23. __________________
24. __________________
25. __________________
26. __________________
27. __________________
28. __________________
29. __________________
30. __________________

Shhhhh! Don’t talk. Use this space to talk by pencil. It won’t count in your score.