

# Planetarium Guide

Tsukuba Expo Center English Vol.1 2019.1.12 - 2.28

## Winter Starry Sky

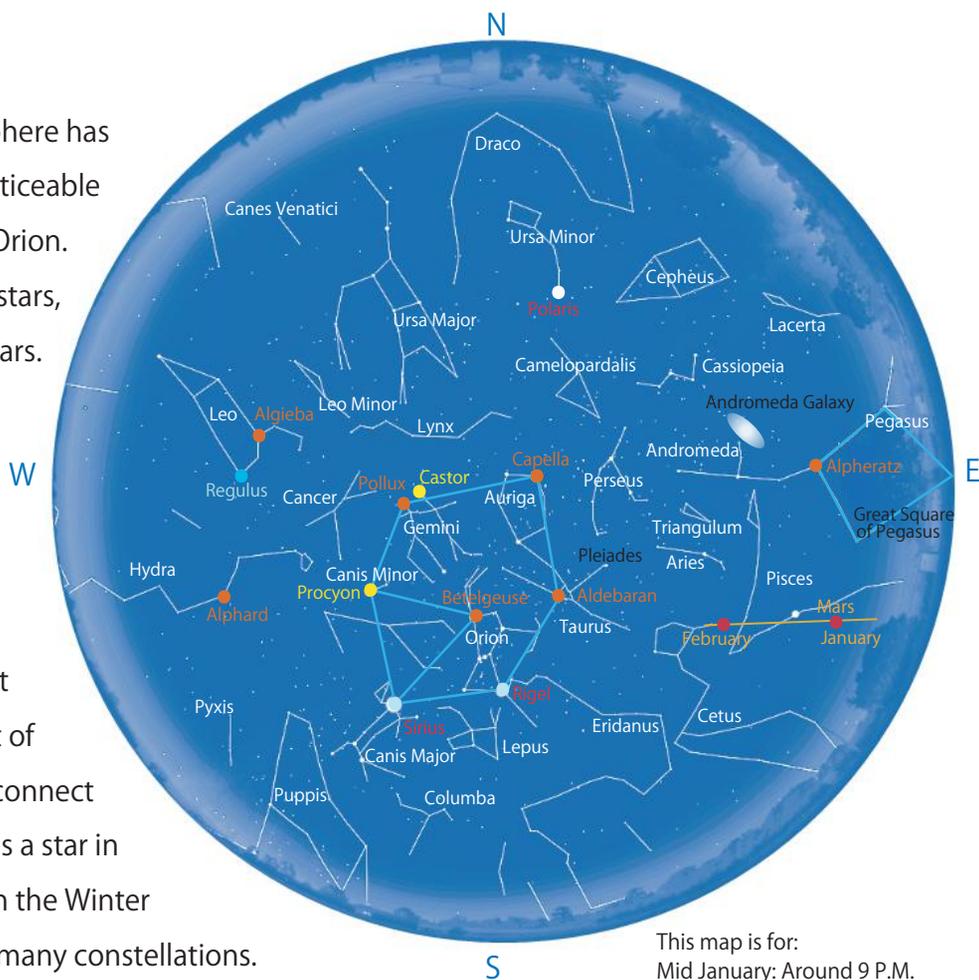
The Winter sky in the Northern Hemisphere has many bright stars. Among the most noticeable of all are the stars of the constellation Orion.

The belt of the hunter Orion has three stars, which are surrounded by four bright stars.

The red star on the top left is called Betelgeuse, the bluish white star on the right bottom is called Rigel. They are both stars of the first magnitude.

Below Orion, there is a star that is the brightest in the entire night sky (except for the planets). The star is Sirius, a part of the constellation Canis Major. We can connect Betelgeuse, Sirius, and Procyon which is a star in the constellation Canis Minor, to obtain the Winter Triangle, which may be used to locate many constellations.

Higher in the sky, we can see Pollux, a star in the constellation Gemini.



This map is for:  
Mid January: Around 9 P.M.  
Mid February: Around 7 P.M.

## Astronomical Observation

After watching the planetarium to introduce the constellations that can be seen in Tsukuba, we will go outside and use a telescope to observe the stars and listen to explanations about those stars. (On the third Saturday of odd-numbered months, as well as in August. If it rains, we will stay indoors and make a star chart disk and learn how to use it.)

●March 16th (Sat) Moon and Orion ●Time: 18:30 - 20:30 ●Place: Planetarium Hall ●Capacity: 100 People ●Fee: 500 yen  
Please apply a month beforehand through the Expo Center website.

## Original Program 2019.1.12 - 2.28 (40 min)

Audio: English/Japanese

## Shells and Spiral Galaxies - Hidden Patterns in Nature



Our galaxy, the Milky Way Galaxy, is where the Earth, the Solar System, and many visible stars are located. But why is it shaped like a spiral? In the Universe and on Earth, there are many mysterious shapes with surprising commonalities. Come on and explore the mystery and beauty of space as expressed by different shapes and patterns.

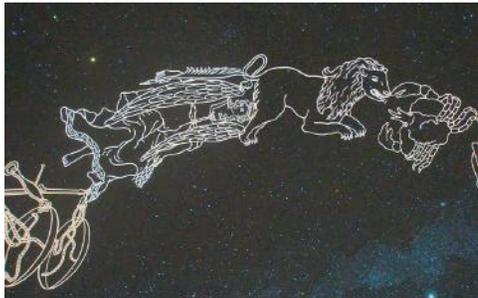
\*This program will play in English as the main audio on **February 9th and 23rd** from 15:30.

For other days English Sub-Audio is available through earphones. Please ask the planetarium staff to borrow earphones at the planetarium dome entrance. (24 earphones are available. They are free to borrow during the show.)

## Starry Sky Explanation Audio: Japanese

2018.12.1 - 2019.2.28 (40 min)

Look up to the stars! Today's starry sky  
Winter season



If we could turn all the city lights off, we could see a sky full of stars. This show will show you how to spot stars and to understand how stars move through the sky every night. The explanation will be live.

## Special Program Audio: Japanese

2018.3.25 - (40 min)

Starry Sky by Vincent van Gogh

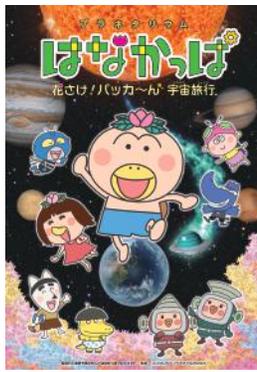


This program will introduce the stars depicted in the art of Vincent van Gogh. We will look at the night sky as van Gogh viewed it and painted it, including the moon, Jupiter, and the Big Dipper. Welcome to the night sky, as painted by van Gogh.

## Children's Programs 2018.12.1 - 2019.2.28 (40 min)

Audio: Japanese

### Hanakappa



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Take a trip into space with the Japanese children's animated character, Hanakappa!

### Conan



©青山 剛昌 / 小学館・読売テレビ・TMS 1996

A solar system model made out of jewels called "the glowing celestial ball". Come and see the exciting battle under the sky full of stars between Conan and Kid the phantom thief.

Pre-reserved group only  Starry Sky Explanation (live)  Original Program  Children's Program (★ Conan ★ Hanakappa)  Special Program

Duration	Days	Starting Time					
12/1 - 2/28	Weekdays	<input type="checkbox"/> 10:10	<input checked="" type="checkbox"/> 11:30	<input checked="" type="checkbox"/> 13:00	<input checked="" type="checkbox"/> 14:30	<input checked="" type="checkbox"/> 16:30	—
	Weekends Holidays	★ 10:10	<input checked="" type="checkbox"/> 11:30	★ 13:00	★ 14:10	<input checked="" type="checkbox"/> 15:30	<input checked="" type="checkbox"/> 16:50

Please do not enter or leave the planetarium theater in the middle of the program. There are no age restrictions and wheelchair access is available. The program may be subject to change. There are 232 seats available.

Admission Fee	Adult	Child	
Basic Entrance Fee	410 yen	210 yen	Child: 4 y/o - High School Students
Planetarium Included Fee	820 yen	410 yen	Children 3 y/o or younger can enter for free.
Additional Planetarium Fee	410 yen	210 yen	After entering the Expo Center, if you wish to watch the planetarium, please go to the information to purchase a planetarium ticket.
Annual Passport	2000 yen	1000 yen	Annual passport will be issued on the day of purchase.

### Tsukuba Expo Center Visitor's Guide

Hours of Operation: 9:50 - 17:00 • Last entry is 30 minutes before closing time. • Hours of operation may be subject to change.  
Closed: **Mondays** (Except when Monday is a public holiday, then the next day is closed), Year end, New Year's holidays



つくばエキスポセンター  
TSUKUBA EXPO CENTER

<http://www.expocenter.or.jp/>

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