



# Planetarium Guide

Tsukuba Expo Center English Vol.2 2019.3.1 - 5.31



## Spring Starry Sky

High up in the sky and a little bit towards the North direction, we can find a spoon shaped grouping of stars. This is the Big Dipper, which is not a constellation on its own, but rather the lower half and tail of the constellation Ursa Major (the great bear). Continuing a little further to the north, we can also find Ursa Minor (the little bear), so these 2 constellations depict a mother and child. The smaller Ursa Minor contains in its tail Polaris. We can easily locate from the Big Dipper by extending the line of the tip of the spoon. Also, by extending the handle of the Big Dipper in a rounded arc, we can locate the red star Arcturus in the constellation Bootes (the herdsman). Remember it by the phrase, "Arc to Arcturus". The curve continues on to the bright star Spica in the constellation Virgo (memory aid: "Speed to Spica"). Arcturus and Spica can also be connected with a third star, Denebola in the constellation Leo (the lion), to form the Spring Triangle.



This map is for:  
 Mid April: Around 12 A.M.  
 Mid May: Around 10 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.)

- May 18th (Sat) The Great Arc of Spring
  - Time: 18:30 - 20:30
  - Place: Planetarium Hall
  - Capacity: 100 People
  - Fee: 500 yen
- You may apply starting from 1 month in advance, through the Expo Center website.

## Original Program 2019.3.1 - 5.31 (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 **April 13th and 27th, May 11th and 25th** 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

2019.3.1 - 5.31 (40 min)

Look up to the stars! Today's starry sky  
Spring - Early Summer 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

2019.4.1 - 5.31 (40 min)

The Milky Way: A Story of Eternal Stars



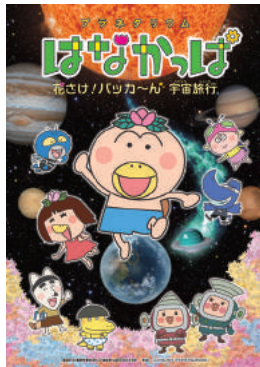
Since ancient times, humanity has been fascinated by our view of the Milky Way in the night sky. This program will introduce various

stories about the Milky Way, from different cultures, and historical periods. You can enjoy learning about the myths and stories that have been told around the world. In addition, the program also introduces the latest scientific observational data and images about our Milky Way Galaxy.

## Children's Programs 2019.3.1 - 5.31 (40 min)

Audio: Japanese

### Hanakappa



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

### Conan



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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						
		<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	—	—
3/1 - 5/31	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	<input checked="" type="checkbox"/> 13:00	★ 14:10	<input checked="" type="checkbox"/> 15:30	<input checked="" type="checkbox"/> 16:50	—
Spring Holidays	3/25 - 4/5	★ 10:10	<input checked="" type="checkbox"/> 11:30	<input checked="" type="checkbox"/> 13:00	★ 14:10	<input checked="" type="checkbox"/> 15:30	<input checked="" type="checkbox"/> 16:50	—
Golden Week Vacation	5/3 - 5	★ 10:00	<input checked="" type="checkbox"/> 11:10	★ 12:20	<input checked="" type="checkbox"/> 13:30	★ 14:40	<input checked="" type="checkbox"/> 15:50	<input checked="" type="checkbox"/> 17:00

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.expo-center.or.jp/>

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