Table of Contents

About the SAKURA SCIENCE High School Program ........ 3

Courtesy Visit to Mr. Yoshimasa Hayashi, the Former
Minister of Education, Culture, Sports, Science and
Technology (MEXT) .......................................................... 4

Group 1 ............................................................................ 5

Group 2 ............................................................................ 6

Group 3 ............................................................................ 7

Group 4 ............................................................................ 8

Group 5 ............................................................................ 9

Group 6 ........................................................................... 10

Group 7 .......................................................................... 11

Group 8 ........................................................................... 12

Group 9 .......................................................................... 13

Group 10 ........................................................................ 14

Group 11 (Special Program for Latin America) .......... 15

Results of Participant Survey ........................................... 16

About the Cover Photographs

A Cambodian student’s visit to the library at Ichikawa Gakuen
Ichikawa Senior High School, reading a book
(May 17, 2018)

A Indian student’s visit to JAXA’s
Tsukuba Space Center, wearing
a space suit
(May 24, 2018)

A Chinese student’s visit to the
Tokyo Institute of Technology,
eagerly taking photos of a huge
supercomputer
(July 11, 2018)
### About the SAKURA SCIENCE High School Program

The SAKURA SCIENCE High School Program (SSHP) was launched in FY2014 as part of the SAKURA SCIENCE Exchange Program (Sakura Science Plan) operated by the Japan Science and Technology Agency (JST). In FY2014, the number of applicable countries and regions for the program totaled 14.

The SSHP invites promising high school students, as well as supervisors, from Asia and elsewhere to Japan to participate in an exchange program specially planned by JST.

The students take part in special classes taught by top scientists in Japan (including Nobel laureates), visit prominent universities and research facilities, interact with Japanese high school students, and experience Japanese culture. The program aims to enhance the visiting high school students’ interest in science and technology in Japan, and to further their talents as global human resources that are required by Japan’s universities, research institutions, and companies. In doing so, the program seeks to contribute to the development of science and technology globally.

### Number of Participants by Country and Region

<table>
<thead>
<tr>
<th>Area</th>
<th>Country/Region</th>
<th>Students</th>
<th>Supervisors</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>East Asia</strong></td>
<td>China</td>
<td>279</td>
<td>47</td>
<td>326</td>
</tr>
<tr>
<td></td>
<td>Republic of Korea</td>
<td>30</td>
<td>5</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>Mongolia</td>
<td>10</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Taiwan</td>
<td>30</td>
<td>5</td>
<td>35</td>
</tr>
<tr>
<td><strong>South-East Asia</strong></td>
<td>Brunei</td>
<td>10</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Cambodia</td>
<td>10</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Indonesia</td>
<td>48</td>
<td>8</td>
<td>56</td>
</tr>
<tr>
<td></td>
<td>Malaysia</td>
<td>30</td>
<td>5</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>Myanmar</td>
<td>30</td>
<td>5</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>Philippines</td>
<td>20</td>
<td>4</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>Laos</td>
<td>10</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Singapore</td>
<td>10</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Thailand</td>
<td>36</td>
<td>6</td>
<td>42</td>
</tr>
<tr>
<td></td>
<td>Viet Nam</td>
<td>30</td>
<td>5</td>
<td>35</td>
</tr>
<tr>
<td><strong>South-West Asia</strong></td>
<td>Bangladesh</td>
<td>19</td>
<td>4</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>Bhutan</td>
<td>10</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>India</td>
<td>209</td>
<td>36</td>
<td>245</td>
</tr>
<tr>
<td></td>
<td>Maldives</td>
<td>5</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Nepal</td>
<td>10</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Pakistan</td>
<td>20</td>
<td>4</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>Sri Lanka</td>
<td>10</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td><strong>Central Asia</strong></td>
<td>Kazakhstan</td>
<td>10</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Turkmenistan</td>
<td>10</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Uzbekistan</td>
<td>10</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td><strong>Pacific Islands</strong></td>
<td>Fiji</td>
<td>5</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Papua New Guinea</td>
<td>5</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Samoa</td>
<td>5</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Tonga</td>
<td>5</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td><strong>Latin America</strong></td>
<td>Argentina</td>
<td>5</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Brazil</td>
<td>21</td>
<td>3</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>Chile</td>
<td>5</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Colombia</td>
<td>10</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Mexico</td>
<td>10</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Peru</td>
<td>4</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>971</td>
<td>171</td>
<td>1,142</td>
</tr>
</tbody>
</table>

### Number of Participants by Area

<table>
<thead>
<tr>
<th>Area</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>East Asia</td>
<td>408</td>
</tr>
<tr>
<td>Southwest Asia</td>
<td>275</td>
</tr>
<tr>
<td>Southeast Asia</td>
<td>334</td>
</tr>
<tr>
<td>Central Asia</td>
<td>65</td>
</tr>
<tr>
<td>Pacific Islands</td>
<td>24</td>
</tr>
<tr>
<td>Latin America</td>
<td>0</td>
</tr>
</tbody>
</table>

**SSHP in FY2018**

In FY2018, the SSHP invited a total of 1,142 outstanding high school students and supervisors to Japan from 28 countries and regions’ in Asia and the Pacific Islands, in addition to six Latin countries as a special program.

The students were divided into 11 groups and participated in specially planned and diverse programs over the course of seven days and six nights over the period of early April 2018 until the end of November.

Visiting Japan for the first time, the participating students encountered advanced science and technology that fully engaged their curiosity, before returning to their home countries. In a post-participation questionnaire, approximately 99% of the high school students responded that they hope to return to Japan, creating expectations that the students will act as bridges between their countries and Japan in the future.
Words of Encouragement to the Students from Mr. Yoshimasa Hayashi, the Former Minister of Education, Culture, Sports, Science and Technology (MEXT)

High school students from three Asian countries in Group 9 of the SSHP (two each from Brunei, China, and Singapore) and two supervisors made a courtesy visit to Mr. Yoshimasa Hayashi, the Former Minister of MEXT on July 19, 2018.

Three high school students from the group recalled their experience in the program in Japan. They looked back at their experience participating in the special lesson by Nobel laureate Dr. Toshihide Maskawa. They also recalled their discussion with Dr. Mamoru Mohri, an astronaut and the Director of the National Museum of Emerging Science and Innovation, and their visits to prominent universities and research institutions. They openly expressed such emotions as, “I feel honored by these valuable experiences” and “I am delighted that my dream of coming to Japan has come true.”

Responding to these comments, Mr. Hayashi further encouraged them, “Science and technology is a major force to make our lives better. I look forward to seeing your generation grow up, and I believe that this universal exchange with students of the same age has been an extremely valuable experience. Today, I heard that you enjoyed this program and I was able to learn a lot from all of you. The encounters at SAKURA SCIENCE make your future life brighter, so I want you to cherish the bonds.”

After taking commemorative photographs with the students, Mr. Hayashi warmly shook hands with each of them. They were still excited after leaving the meeting room.
The students attended a special class by Prof. Takaaki Kajita, the Nobel laureate in Physics in 2015, together with students from Shibaura Institute of Technology Kashiwa Senior High School. After speaking about what sparked his interest in physics, Prof. Kajita gave an easy-to-understand talk on his discovery of how subatomic particle neutrinos that were considered to have zero mass actually have mass so that even high school students could understand.

In the outline of the university, the students received a thorough explanation of useful information such as the allure and tuition as well as programs in English. In addition, many foreign students from India and Bangladesh met with the group and talked about life at the university, where foreign students make up 10% of the student population (including graduate students), in detail to high school students from their home countries.

Students toured the maintenance facility of the deep sea cruising autonomous underwater vehicle (AUV) “URASHIMA” and a hyperbaric chamber facility where deep sea conditions can be reproduced. In addition, the group took photographs seated in the cockpit of a life-size replica of Japan’s pride and joy, the SHINKAI 6500 manned research submersible, as they experienced what it is like to be a pilot.

After listening to the outline of the university and necessary information for studying here, the group strolled around the second largest campus in Japan. The students were impressed with the size of the campus as well as its famous beauty and enthusiastically took photos with their smartphones. Moreover, the students visited “COMA,” one of Japan’s top-tier supercomputers in terms of processing performance, in the Center for Computational Sciences.
The students were divided into three groups. The first group visited “SPring-8” and “SACLA” in RIKEN, the second group visited the K computer in the same RIKEN facility, and the third group visited the National Institute of Technology, Akashi College. Following an explanation, the second group was able to see the supercomputer up close through glass.

April 16 Students were split into three small groups

The students were divided into three groups. The first group visited “SPring-8” and “SACLA” in RIKEN, the second group visited the K computer in the same RIKEN facility, and the third group visited the National Institute of Technology, Akashi College. Following an explanation, the second group was able to see the supercomputer up close through glass.

April 17 Visit to the Kyoto Institute of Technology

After greetings by university Vice President Giuseppe Pezzotti, the students watched a university introduction video. Students also participated in programs related to different fields such as a lecture on natural rubber and an introduction to research on green innovation as well as an applied biology lecture and a laboratory visit. At lunch the students enjoyed making “chirashi sushi” together with foreign and Japanese students from the university.

April 18 Special lecture by Prof. Akira Fujishima

In Tokyo Gakugei University Senior High School, students participated in a special class by former President of the Tokyo University of Science, Prof. Akira Fujishima, who received the Order of Culture in 2017. Students learned that photocatalysis, which Prof. Fujishima is an expert of, is widely used in common objects (external walls of houses and air cleaners, etc.), and that this technology can even be used in producing artificial diamonds, which created a stir among the students.

April 19 Tour of the National Museum of Emerging Science and Innovation (and meeting with its director, Dr. Mamoru Mohri)

Director Mamoru Mohri of the National Museum of Emerging Science and Innovation, who was also an astronaut, welcomed the students and gave a lecture. The high school students were captivated by Director Mohri’s interesting stories about what sparked his interest in becoming an astronaut, his time in space, and his role and future possibilities in society as a person involved in science and technology.

April 20 Tour of the National Museum of Emerging Science and Innovation (and meeting with its director, Dr. Mamoru Mohri)

Director Mamoru Mohri of the National Museum of Emerging Science and Innovation, who was also an astronaut, welcomed the students and gave a lecture. The high school students were captivated by Director Mohri’s interesting stories about what sparked his interest in becoming an astronaut, his time in space, and his role and future possibilities in society as a person involved in science and technology.

April 21 Departure from Japan

SAKURA SCIENCE High School Program Activity Report 2018
Students were able to watch different types of robots being assembled one after another at YASKAWA Electric’s plant. Furthermore, in the robot battle game exhibit at the YASKAWA Innovation Center, the students were impressed with the speed and accuracy of robot movements. In a corner displaying robots for medical use, the students found a robot that reproduced flexible arm movements to be extremely interesting.

Visit to YASKAWA Electric Corporation

Students learned about energy research that uses geothermal heat and hydrogen. Numerous questions, such as “How do you find the heat source for geothermal power generation?” and “How long can hydrogen energy be stored?”, were raised. The group also met with foreign students from their home countries and gathered information on how to study in Japan, etc.

Visit to Kyushu University

At Ichikawa Gakuen Ichikawa Senior High School, which is designated as a Super Science High School (SSH), students became acquainted with students from this school. Following a welcome party, the group took part in a regular class. Although the lesson was conducted in Japanese, as the students learned more by listening to English explanations, the visiting Asian high school students and Japanese students quickly became friendly.

Interaction with Ichikawa Gakuen Ichikawa Senior High School Students

Students participated in a special lecture at Ichikawa Gakuen Ichikawa Senior High School by Prof. Ryoji Noyori, the Nobel laureate in 2001 in Chemistry. Prof. Noyori talked about interesting stories including how his interest in science originated from when he was small and learned that rayon is made from coal, water, and air, and how he was inspired by the Nobel Prize of Dr. Hideki Yukawa to become a scientist.

Special lecture by Prof. Ryoji Noyori

<table>
<thead>
<tr>
<th>Country/Region</th>
<th>Students</th>
<th>Supervisors</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cambodia</td>
<td>10</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>India</td>
<td>33</td>
<td>6</td>
<td>39</td>
</tr>
<tr>
<td>Myanmar</td>
<td>30</td>
<td>5</td>
<td>35</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>73</strong></td>
<td><strong>13</strong></td>
<td><strong>86</strong></td>
</tr>
</tbody>
</table>

Visit to Waseda University or International University of Health and Welfare Closing Ceremony and Farewell Ceremony

Visit to Ichikawa Gakuen Ichikawa Senior High School (Special lecture by Prof. Ryoji Noyori, etc.)

Visit to Tokyo, Tour of National Museum of Emerging Science and Innovation

Visit to Ichikawa Gakuen Ichikawa Senior High School

Visit to Waseda University or International University of Health and Welfare

Visit to Kyushu University or Kyushu Institute of Technology

Travel to Tokyo; Tour of National Museum of Emerging Science and Innovation

Arrival in Japan; Orientation

Departure from Japan

May 13 (Sun) to 19 (Sat) of 2018

May 14 (Mon) Visit to YASKAWA Electric Corporation or Toyota Motor Kyushu

May 15 (Tue) Visit to Kyushu University or Kyushu Institute of Technology

May 16 (Wed) Travel to Tokyo; Tour of National Museum of Emerging Science and Innovation

May 17 (Thu) Visit to Ichikawa Gakuen Ichikawa Senior High School (Special lecture by Prof. Ryoji Noyori, etc.)

May 18 (Fri) Visit to Waseda University or International University of Health and Welfare Closing Ceremony and Farewell Ceremony

May 19 (Sat) Departure from Japan
Following an explanation about life in Japan and the university from Prof. Mao Minoura of the Department of Chemistry at the College of Science, students were split into small groups to tour the campus. Students visited the beautiful historical red brick ivy-covered structure of the main building, a solemn chapel, and the library on a beautiful sunny day in May and enjoyed the atmosphere of a Japanese university while taking many pictures.

JAXA is developing the Japanese Experiment Module “Kibo” of the International Space Station (ISS) orbiting 400 km above the earth. Students were able to visit an actual control room, and the large screens in the front and current images of the ISS and the space center in the United States captivated the high school students. Since images within the room from an earthquake were simultaneously displayed on a large screen, students were able to experience how the shaking and length differ depending on the type of earthquake. During the tours of the large-scale rainfall and earthquake simulators, everyone was surprised by how serious rainfall and earthquakes could be.

Following a welcome party in a hall, students were split into small groups to visit classrooms. The high school was busy with preparations for an upcoming cultural festival, and high school students from India provided a helping hand and tried origami (paper folding). Although proficient in English, explaining how to fold origami proved to be a challenge for some of the students at Namiki. Nevertheless, all seemed to enjoy the time spent together.
Group 5
May 27 (Sun) to June 2 (Sat) of 2018

<table>
<thead>
<tr>
<th>Country/Region</th>
<th>Students</th>
<th>Supervisors</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil</td>
<td>21</td>
<td>3</td>
<td>24</td>
</tr>
<tr>
<td>India</td>
<td>36</td>
<td>6</td>
<td>42</td>
</tr>
<tr>
<td>Taiwan</td>
<td>30</td>
<td>5</td>
<td>35</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>87</strong></td>
<td><strong>14</strong></td>
<td><strong>101</strong></td>
</tr>
</tbody>
</table>

**Schedule**

<table>
<thead>
<tr>
<th>Details of Tokyo Group (Brazil and Taiwan)</th>
<th>Details of Hiroshima Group (India)</th>
</tr>
</thead>
<tbody>
<tr>
<td>May 27 (Sun) Arrival in Japan; Orientation</td>
<td>Arrival in Japan; Orientation</td>
</tr>
<tr>
<td>May 28 (Mon) Tour of Tokyo University of Science (Mathematics class of Prof. Jin Akiyama) or University of Tsukuba</td>
<td>Visit to Hiroshima University Senior High School; Tour of Hiroshima Peace Memorial Museum</td>
</tr>
<tr>
<td>May 29 (Tue) Visit to University of Tsukuba; Tour of CYBERDYNE Inc.</td>
<td>Tour of Chugoku Electric Power Co., Inc.; Visit to Hiroshima University</td>
</tr>
<tr>
<td>May 30 (Wed) Tour of National Museum of Emerging Science and Innovation, including a lecture by Dr. Mamoru Mohri</td>
<td></td>
</tr>
<tr>
<td>May 31 (Thu) Visit to Toyo University or Chiba Prefectural Kashiwa High School</td>
<td></td>
</tr>
<tr>
<td>June 1 (Fri) Tour of JAXA Sagamihara Campus and Nissan Motor Company Yokohama Plant or visit to Tokyo University of Agriculture and Technology</td>
<td>Closing Ceremony and Farewell Ceremony</td>
</tr>
<tr>
<td>June 2 (Sat) Departure from Japan</td>
<td></td>
</tr>
</tbody>
</table>

**May 28 Visit to Hiroshima University Senior High School**

In a welcome ceremony, the students were split into small groups to enjoy interacting with the high school students. In a demo lesson experience, students participated in a solar energy experiment in a physics class and quiz competition on parity in mathematics. The supervisors, who are teachers, also participated in classes in their specialty fields and commented that the demo lessons would be useful in their future lessons.

**May 28 Mathematics class by Prof. Jin Akiyama at the Tokyo University of Science**

Students participated in a “Math Spectacular Show” by Prof. Jin Akiyama. He announced that he would make all those who hate math like math in this class and explained the world of topology by making heart and rectangle shapes with paper rings. He also explained the Pythagorean theorem with his own tools in an easy-to-understand way.

**May 31 Visit to Toyo University**

Students participated in a lab tour hosted by Indian students studying at Toyo University and a demo lesson. The lesson by a professor from the Faculty of Information Sciences and Arts included an explanation on subway design that used CG and an introduction to a device that automatically types up English sentences. The director of the Bio-Nano Electronics Research Center talked about soccer ball-shaped molecules in his lecture.

**June 1 Visit to the Tokyo University of Agriculture and Technology**

The group visited a research site for blueberry cultivation in the Global Fruits Factory. Students learned about the aim of the research, which is to grow abundant blueberries throughout the year by adjusting room temperature and sunlight to create the four seasons. Students also attended lectures on the “recovery of agriculture in Fukushima following the nuclear accident” and “cacao production in Guiana” to experience classes in the university.
**Group 6**

**June 17 (Sun) to 23 (Sat) of 2018**

<table>
<thead>
<tr>
<th>Country/Region</th>
<th>Students</th>
<th>Supervisors</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>India</td>
<td>24</td>
<td>4</td>
<td>28</td>
</tr>
<tr>
<td>Indonesia</td>
<td>24</td>
<td>4</td>
<td>28</td>
</tr>
<tr>
<td>Republic of Korea</td>
<td>30</td>
<td>5</td>
<td>35</td>
</tr>
<tr>
<td>Viet Nam</td>
<td>30</td>
<td>5</td>
<td>35</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>108</strong></td>
<td><strong>18</strong></td>
<td><strong>126</strong></td>
</tr>
</tbody>
</table>

**Schedule**

<table>
<thead>
<tr>
<th>June 17 (Sun)</th>
<th>Arrival in Japan; Orientation</th>
</tr>
</thead>
<tbody>
<tr>
<td>June 18 (Mon)</td>
<td>Visit to Rikkyo University (Experiment lab with Prof. Hideki Shirakawa, etc.)</td>
</tr>
<tr>
<td>June 19 (Tue)</td>
<td>Tour of JAMSTEC and Kamakura</td>
</tr>
<tr>
<td>June 20 (Wed)</td>
<td>Tour of National Museum of Emerging Science and Innovation, including a lecture by Dr. Mamoru Mohri</td>
</tr>
<tr>
<td>June 21 (Thu)</td>
<td>Visit to Rikkyo University (Experiment lab with Prof. Hideki Shirakawa, etc.)</td>
</tr>
<tr>
<td>June 22 (Fri)</td>
<td>Visit to JAMSTEC Yokosuka Headquarters, Tokyo University of Science, Hosei University, or Ochanomizu University</td>
</tr>
<tr>
<td>June 23 (Sat)</td>
<td>Departure from Japan</td>
</tr>
</tbody>
</table>

**June 18**  
**Visit to Ritsumeikan Keisho Senior High School**

After a welcome ceremony by the high school Brass Band Club and Cheerleading Club, small groups comprised of students from three different countries (Japan, India, and Viet Nam) created hovercraft. Since there was no design chart, students conducted test runs and held a contest while exchanging opinions, which seemingly strengthened the bonds in the groups. Students also experienced a tea ceremony and visited the Kendo Club.

![Hovercraft competition on who can fly the farthest](image)

**June 19**  
**Visit to Hokkaido University**

Students were split into small groups to visit laboratories. The high school students listened to easy-to-understand explanations of highly specialized research contents by each lab with great interest and showed keen interest in the cutting-edge equipment. Foreign students from India and Viet Nam also participated in an exchange session and the high school students listened to details of life in Japan for foreign students.

![Students intently listening to an explanation](image)

**June 21**  
**Visit to Saitama Prefectural Urawa High School**

Students from the Republic of Korea joined a lesson with Urawa High School students. In the chemistry class, students formed teams and carried out experiments to identify the reagent names of unknown powders. It was not an easy task, but the Japanese and Korean students communicated in English to predict the name of the powder. Students enjoyed tackling difficult questions by using English.

![Identifying the reagent name through the experiment](image)

**June 22**  
**Visit to Ochanomizu University**

The leafy, serene campus is home to many buildings registered as Tangible Cultural Properties in Japan. After a welcome speech by Vice President Yasuko Sasaki, the students went on a campus tour, and even though it was the rainy season students enjoyed being guided around by foreign students on this bright, summer-like day.

![Taking in the greenery on campus](image)
Group 7

<table>
<thead>
<tr>
<th>Country/Region</th>
<th>Students</th>
<th>Supervisors</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bhutan</td>
<td>10</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>China</td>
<td>42</td>
<td>7</td>
<td>49</td>
</tr>
<tr>
<td>Fiji</td>
<td>5</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Mongolia</td>
<td>10</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>Papua New Guinea</td>
<td>5</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Samoa</td>
<td>5</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Tonga</td>
<td>5</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Uzbekistan</td>
<td>10</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>Total</td>
<td>92</td>
<td>17</td>
<td>109</td>
</tr>
</tbody>
</table>

July 1 (Sun) to 7 (Sat) of 2018

July 1 (Sun)
- Arrival in Japan; Orientation

July 2 (Mon)
- Tour of the city of Nagoya

July 3 (Tue)
- Visit to Nagoya University (Special class by Prof. Hiroshi Amano and other event)
- Visit to Ritsumeikan Asia Pacific University

July 4 (Wed)
- Visit to Meijo University and Meijo University Senior High School
- Visit to National Institute of Technology, Kitakyushu College

July 5 (Thu)
- Tour of National Museum of Emerging Science and Innovation, including a lecture by Dr. Mamoru Mohri, and tour of the city of Tokyo

July 6 (Fri)
- Visit to Shibaura Institute of Technology (China); Tour of Kazusa DNA Research Institute (Pacific Islands)
- Closing Ceremony and Farewell Ceremony

July 7 (Sat)
- Departure from Japan

Details of Nagoya Group (Bhutan, China, Mongolia, and Uzbekistan)
Details of Kyushu Group (Pacific Islands)

Schedule

Prof. Hiroshi Amano, the Nobel laureate in Physics in 2014, gave the students a lecture about blue LED, for which he received the Nobel Prize, and explained his career up to that point in addition to his field of expertise. In a Q&A session, students asked numerous questions including the difference between innovation and invention and how to decide on one’s field of expertise.

Prof. Hiroshi Amano speaking to students

The student visit was met by heavy rain and strong wind from a typhoon. The Admissions Office manager outlined how the university values the importance of communication and features diversity and introduced Beppu City, where the university is located. High school students interacted with Japanese students by participating in a career design class, a Japanese-language class, and so on.

Discussion became animated

The Kazusa DNA Research Institute leads the world in DNA research as the world’s first research institution specializing in DNA. Following arrival, students attended a lecture introducing the research center. The institute has mapped the entire genome arrangement of “blue green algae,” and the high school students were particularly surprised to see the thickness of a document listing the entire genome (3.57 million letters). Students also conducted a DNA extraction experiment.

Experiment on how to use micro pipette for transfers of very small amounts of liquid

Visit to Ritsumeikan Asia Pacific University

Visit to Meijo University and Meijo University Senior High School

Following an explanation outlining the university, students created an LED lamp together with Meijo University graduate students. It took some high school students a few tries to get the knack of using a soldering iron since it was their first time, but all the students enjoyed the experiments with support from the graduate students. Later, they moved to Meijo University Senior High School to participate in an exchange program.

Struggling with a soldering iron

Visit to Shibaura Institute of Technology (China); Tour of Kazusa DNA Research Institute (Pacific Islands) or National Research Institute of Fisheries Science (Pacific Islands)
### Schedule

<table>
<thead>
<tr>
<th>July 8 (Sun)</th>
<th>Details of Tokyo Group (China, Nepal, and Pakistan)</th>
<th>Details of Sendai Group (China)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arrival in Japan; Orientation</td>
<td>Arrival in Japan; Orientation</td>
<td></td>
</tr>
<tr>
<td>July 9 (Mon)</td>
<td>Visit to Tokyo Institute of Technology (experiment lab with Prof. Hideki Shirakawa, etc.). Tour of National Astronomical Observatory of Japan, the Institute of Statistical Mathematics and National Institute of Polar Research</td>
<td>Visit to Tohoku University (Tour of Tohoku University Archives and other events)</td>
</tr>
<tr>
<td>July 10 (Tue)</td>
<td>Visit to Tokyo Metropolitan Hibiya High School or Saitama Municipal Omiya Kita High School</td>
<td>Visit to Miyagi Prefectural Sendai 1-ichi High School</td>
</tr>
<tr>
<td>July 11 (Wed)</td>
<td>Tour of JAMSTEC and Kamakura</td>
<td>Visit to Tokyo Institute of Technology (Experiment lab with Prof. Hideki Shirakawa, etc.)</td>
</tr>
<tr>
<td>July 12 (Thu)</td>
<td>Tour of National Museum of Emerging Science and Innovation, including a lecture by Dr. Mamoru Mohri; Tour of Akihabara; Visit to the Embassy of Pakistan (Only for the Pakistan group)</td>
<td></td>
</tr>
<tr>
<td>July 13 (Fri)</td>
<td>Visit to Saitama University or the University of Tokyo</td>
<td>Closing Ceremony and Farewell Ceremony</td>
</tr>
<tr>
<td>July 14 (Sat)</td>
<td>Departure from Japan</td>
<td></td>
</tr>
</tbody>
</table>

### Group 8

<table>
<thead>
<tr>
<th>Country/Region</th>
<th>Students</th>
<th>Supervisors</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>70</td>
<td>12</td>
<td>82</td>
</tr>
<tr>
<td>Nepal</td>
<td>10</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>Pakistan</td>
<td>20</td>
<td>4</td>
<td>24</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100</td>
<td>18</td>
<td>118</td>
</tr>
</tbody>
</table>

---

**July 10 Visit to Tokyo Metropolitan Hibiya High School**

Following an explanation of the long-running high school, Chinese high school students were split up into small groups and participated in regular classes for second year and third year high school students. Chinese high school students with outstanding results in the International Junior Science Olympiad in China participated in a science course class. The Japanese and Chinese high school students eagerly tackled university-level questions while communicating with each other in English.

**July 11 Visit to the Tokyo Institute of Technology**

Chinese high school students energetically participated in this day’s program despite the ongoing severe heat wave. Following an introduction to the university, students saw the Tokyo Institute of Technology’s ultra high-performance supercomputer TSUBAME3.0. Students enthusiastically learned about the world’s No. 1 ranked supercomputer in 2017 in terms of energy efficiency.

**July 12 Experiment lab with Prof. Hideki Shirakawa**

Students participated in an experiment lab by Prof. Hideki Shirakawa, the Nobel laureate in Chemistry in 2000. The theme was “Let’s create an EL element by synthesizing conductive plastic.” Once Prof. Shirakawa started to explain the scientific structure of plastic and the synthesizing process of conductive plastic, everyone listened eagerly while taking notes. The EL element lit up at the end, bringing the experiment to a successful close.

**July 13 Visit to the Pakistan Embassy in Tokyo**

In response to an invitation from the Ambassador of Pakistan, Dr. Asad Majeed Khan, the high school students visited the Pakistan Embassy. This year, all of the talented high school students visiting Japan from Pakistan were girls, which gave the impression that Pakistan is also nationally focusing on education for girls. Ambassador Khan, who also has experience studying in Japan, encouraged the students to grab hold of every opportunity and imagine studying in Japan.
**Group 9**

**July 15 (Sun) to 21 (Sat) of 2018**

<table>
<thead>
<tr>
<th>Country/Region</th>
<th>Students</th>
<th>Supervisors</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>71</td>
<td>12</td>
<td>83</td>
</tr>
<tr>
<td>Singapore</td>
<td>10</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>Brunei</td>
<td>10</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>91</td>
<td>16</td>
<td>107</td>
</tr>
</tbody>
</table>

**Schedule**

- **July 15 (Sun)**: Arrival in Japan; Orientation
- **July 16 (Mon)**: Visit to Ritsumeikan Senior High School, including a special class by Prof. Toshihide Maskawa
- **July 17 (Tue)**: Visit to Ritsumeikan University
- **July 18 (Wed)**: Interaction with students of Aichi Prefectural Meiwa Senior High School; Tour of Nagoya City Science Museum
- **July 19 (Thu)**: Tour of National Museum of Emerging Science and Innovation, including a lecture by Dr. Mamoru Mohri
- **July 20 (Fri)**: Visit to Sophia University or Meiji University; Closing Ceremony and Farewell Ceremony
- **July 21 (Sat)**: Departure from Japan

Since the students had been interacting with Ritsumeikan Senior High School students who were their “supporters” from the time of their arrival at their accommodation, both sets of high school students were already well acquainted during the visit to Ritsumeikan Senior High School. The school tour and exchange event became animated, and the high school students were reluctant to leave in the end and wished they could have spent more time together with the Ritsumeikan Senior High School students. It seems they forged unforgettable friendships from dining and spending evenings together.

**July 16**  
**Visit to Ritsumeikan Senior High School**

Since the students had been interacting with Ritsumeikan Senior High School students who were their “supporters” from the time of their arrival at their accommodation, both sets of high school students were already well acquainted during the visit to Ritsumeikan Senior High School. The school tour and exchange event became animated, and the high school students were reluctant to leave in the end and wished they could have spent more time together with the Ritsumeikan Senior High School students. It seems they forged unforgettable friendships from dining and spending evenings together.

**July 18**  
**Visit to Aichi Prefectural Meiwa Senior High School**

In a poster presentation by Meiwa Senior High School students, the high school students from other Asian regions proactively exchanged opinions with Meiwa Senior High School students. The high school students were impressed by the oral research presentations in English by Meiwa Senior High School students in front of the large audience. In the afternoon, the students headed to the Nagoya City Science Museum and furthered their interaction while enjoying the museum including the planetarium.

**July 20**  
**Visit to Meiji University**

After an overview of the university, students visited labs in Applied Chemistry, Computer Science, and Electronics and Bioinformatics. In the Electronics and Bioinformatics lab, Prof. Osamu Ono introduced a case example of Brain Computer Interface (BCI) technology for rehabilitating stroke patients. BCI technology enables what you think in your head to be read by a computer and move a machine. Students also experienced using the device.

**July 16**  
**Special class by Prof. Toshihide Maskawa at Ritsumeikan Senior High School**

A special class by Prof. Toshihide Maskawa starting with an introduction by Ritsumeikan Senior High School students was carried out in a discussion format with Principal Horie of Ritsumeikan Senior High School. The discussion was about familiar topics for high school students such as Prof. Maskawa’s school days and what made him want to become a researcher. In the Q&A session, many questions including “How did you come up with the research theme?” and “How do you stay motivated?” were asked and answered.

**July 16**  
**Visit to Ritsumeikan Senior High School**

Since the students had been interacting with Ritsumeikan Senior High School students who were their “supporters” from the time of their arrival at their accommodation, both sets of high school students were already well acquainted during the visit to Ritsumeikan Senior High School. The school tour and exchange event became animated, and the high school students were reluctant to leave in the end and wished they could have spent more time together with the Ritsumeikan Senior High School students. It seems they forged unforgettable friendships from dining and spending evenings together.
### Group 10

**July 22 (Sun) to 28 (Sat) of 2018**

<table>
<thead>
<tr>
<th>Country/Region</th>
<th>Students</th>
<th>Supervisors</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>96</td>
<td>16</td>
<td>112</td>
</tr>
<tr>
<td>Colombia</td>
<td>10</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>Laos</td>
<td>10</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>116</strong></td>
<td><strong>20</strong></td>
<td><strong>136</strong></td>
</tr>
</tbody>
</table>

#### Details of Okayama Group (China)

- **July 22 (Sun)**: Arrival in Japan; Orientation
- **July 23 (Mon)**: Visit to Waseda University Honjo Senior High School
- **July 24 (Tue)**: Visit to Tokyo University of Marine Science and Technology
- **July 25 (Wed)**: Visit to High Energy Accelerator Research Organization (KEK) (Special lecture by Prof. Makoto Kobayashi)
- **July 26 (Thu)**: Tour of National Museum of Emerging Science and Innovation, including a lecture by Dr. Mamoru Mohri
- **July 27 (Fri)**: Visit to University of Tokyo, University of Electro-Communications, or Chiba Institute of Technology, Closing Ceremony and Farewell Ceremony
- **July 28 (Sat)**: Departure from Japan

#### Details of Tokyo Group (China, Colombia, and Laos)

- **July 22 (Sun)**: Arrival in Japan; Orientation
- **July 23 (Mon)**: Visit to Upper Secondary Division of Tamagawa Academy
- **July 24 (Tue)**: Visit to Tokai University
- **July 25 (Wed)**: Visit to Tokyo University of Marine Science and Technology
- **July 26 (Thu)**: Tour of National Museum of Emerging Science and Innovation, including a lecture by Dr. Mamoru Mohri
- **July 27 (Fri)**: Visit to University of Tokyo, University of Electro-Communications, or Chiba Institute of Technology, Closing Ceremony and Farewell Ceremony
- **July 28 (Sat)**: Departure from Japan

---

#### July 23

**Visit to Waseda University Honjo Senior High School**

In the welcome party, Chinese students also conducted presentations about their high schools and gave a performance to deepen mutual understanding. In the cooking class, students cooked miso soup with Honjo Senior High School students and tried their miso soup with a lunch box at lunch while enjoying some conversation. In an experiment class in the afternoon as well, both Japanese and Chinese students eagerly worked together on an assignment.

![Chinese high school student awkwardly cutting tofu](image)

#### July 25

**Special lecture by Prof. Makoto Kobayashi**

Students visited the High Energy Accelerator Research Organization (KEK) and spent the entire day learning about elemental particles and accelerators. In the morning, they toured a large facility by bus, while in the afternoon the students participated in a special lecture by Prof. Makoto Kobayashi, recipient of the Nobel Prize in Physics in 2008. Even though the lecture was at a high level, the high school students tried hard to understand the details.

![Prof. Kobayashi speaking to students](image)

---

#### July 26

**Courtesy visit to the Ambassador of Colombia in Japan**

Students went to the Embassy of Colombia in Tokyo to pay a courtesy visit to the Ambassador, H.E. Gabriel Duque, wearing a matching T-shirt gifted from the Colombian Ministry of Education. Ambassador Duque invited the Colombian students to his residence and listened as they talked about the contents of the program and their impressions of Japan. He also participated in the closing ceremony held at JST on the final day of the program.

![Taking a photo with Ambassador Duque](image)

---

#### July 27

**Visit to the University of Electro-Communications**

In the Robot-mech Club, students tried a simulator that enables them to feel drunk and operated a robot that can do pantomime. In addition, students experienced a bionic arm for people without arms due to congenital disorders or accidents. Students also interacted with foreign students, and some students commented that they were able to imagine what it is like to study in Japan.

![Students surprised by the realistic texture of an artificial hand](image)
**Group 11**  
(Special Program for Latin America)  
November 25 (Sun) to December 1 (Sat) of 2018

**Schedule**

<table>
<thead>
<tr>
<th>Date</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>November 25 (Sun)</td>
<td>Arrival in Japan; Orientation</td>
</tr>
<tr>
<td>November 26 (Mon)</td>
<td>Tour of Sony ExploraScience; Visit to Chiba Institute of Technology, Tokyo Skytree Town Campus</td>
</tr>
<tr>
<td>November 27 (Tue)</td>
<td>Visit to Meikei High School and JAXA Tsukuba Space Center</td>
</tr>
<tr>
<td>November 28 (Wed)</td>
<td>Visit to Azabu University; Tour of Edo-Tokyo Museum; Visit to the Embassy of Peru in Tokyo, Japan (Only for the Peru group)</td>
</tr>
<tr>
<td>November 29 (Thu)</td>
<td>Tour of National Museum of Emerging Science and Innovation; Tour of Minato Resource Recycle Center; Visit to the Embassy of Chile, Argentina, or Mexico (Only for the group concerned)</td>
</tr>
<tr>
<td>November 30 (Fri)</td>
<td>Visit to Tokyo University of Science Kagurazaka Campus; Closing Ceremony and Farewell Ceremony</td>
</tr>
<tr>
<td>December 1 (Sat)</td>
<td>Departure from Japan</td>
</tr>
</tbody>
</table>

**November 27  Visit to Meikei High School**

Following a school tour while enjoying displays of paintings and calligraphy by Meikei High School students in the school, students participated in regular classes. After becoming more comfortable with each other through playing a game in English class, each group enjoyed conversing with Meikei High School students. In a math class, students from South and Central America were respectively paired with Japanese students and worked on difficult questions, while in the physics and biology classes, students worked together on experiments.

**November 28  Visit to Azabu University**

Prof. Hong-Kean Ooi from the School of Veterinary Medicine gave the students a lecture on parasitology in Spanish. In particular, everyone intently watched a video showing a malaria-transmitting mosquito suck blood. Afterwards, the students asked many questions. Following the lecture, the students visited the Life Museum of Azabu University, where the high school students picked up an elephant bone and were surprised to find how heavy it was.

**November 28–29  Visits to Embassies**

High school students visited the embassies of their home countries in Japan.

### Country/Region

<table>
<thead>
<tr>
<th>Country</th>
<th>Students</th>
<th>Supervisors</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>5</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Chile</td>
<td>5</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Mexico</td>
<td>10</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>Peru</td>
<td>4</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>24</strong></td>
<td><strong>5</strong></td>
<td><strong>29</strong></td>
</tr>
</tbody>
</table>

**November 29  Tour of the Minato Resource Recycle Center**

After learning about the garbage treatment process in a video, high school students saw the machine in operation from a viewing area. The students were wowed by how the various types of bottles on the conveyor were automatically sorted and destroyed by color. It seems that sorting out garbage by garbage types for the purpose of recycling was a surprise for high school students from South and Central America.

![Embassy photos](image1)  
(From top left, clockwise) Embassy of Argentina (Ambassador Alan Beraud on the right), Embassy of Peru, Embassy of Mexico (Ambassador Almada Lopez on the right), and Ambassador of Chile Julio Fiol making a speech at the closing ceremony.

Students were surprised to find brand-new furniture being sold as recycled items.

SAKURA SCIENCE High School Program Activity Report 2018
Survey targets
SAKURA SCIENCE High School Program FY2018 participants (including supervisors)

Questionnaire method
Questionnaire form filled in at the end of the program

Number of persons targeted
1,142

Valid responses
1,142

Response rate
100%

Results of Participant Survey

Q1 What was your impression of Japan before participating in this program?

- Very good: 59.7%
- Good: 38.4%
- Not very good: 0.5%
- Not good: 0.1%
- No comment: 1.3%

Q2 What was your impression of Japan after participating in this program?

- Very good: 84.3%
- Good: 15.1%
- Not very good: 0.4%
- Not good: 0.1%
- No comment: 0.1%

Q3 Were you satisfied with the program?

- Very satisfied: 72.2%
- Relatively satisfied: 25.0%
- Neutral: 0.6%
- Not satisfied: 1.5%
- No comment: 0.7%

Comments from persons who responded with either “Very satisfied” or “Relatively satisfied”
- I am pleased that I could think more deeply about science. (India, 17)
- The program was wonderful since I was able to learn about Japan, and get acquainted with people from various countries. (Kazakhstan, 16)
- I felt Japan is progressing even more day by day even though it is already an advanced country. (Bangladesh, 16)
- I understand that the best education system that creates talented people has been established in Japan. (Indonesia, 17)
- Since I wanted to visit Japan from when I was small, I was able to obtain many things such as friends, experiences, knowledge, and unforgettable memories. (Myanmar, 15)

Comments from persons who responded with either “Neutral” or “Not satisfied”
- I was looking forward to experiencing Japanese culture, but I couldn’t do that quite enough. It was very disappointing since we can experience Japanese culture really only in Japan. (Republic of Korea, 16)

Q4 Would you recommend receiving higher education in Japan to a friend?

- Would strongly recommend: 68.6%
- Would somewhat recommend: 28.7%
- Would not recommend: 2.4%
- No comment: 0.3%

Comments from respondents who chose “Would strongly recommend” or “Would somewhat recommend”
- I think it is true that some Japanese schools are better than schools in my home country, that the environment is great, and that they have a wide variety of curriculum. In addition, the cost is lower than studying in Europe, etc. (China, 16)
- Japanese education focuses on practical learning, and the education standards are high. (Supervisor, Bangladesh, 54)
- Not only did I learn many things but I also learned how to adopt what I learned into daily life. This will be useful for my future research. (India, 16)
- I would like to participate in classes in Japanese high schools again since I wanted to learn more about the science that high school students were studying. (Thailand, 17)
- Yes, because I think Japan values education very much and investment in research and innovation is high there. (Brazil, 17)
**Q5: Would you like to come back to Japan?**

- **79.3%**: I would very much like to
- **20.0%**: I would like to
- **0.4%**: I wouldn’t particularly like to
- **0.3%**: No comment

**Q6: In what capacity would you like to return to Japan? Why?**

- **49.2%**: Foreign student
- **41.5%**: Researcher
- **9.0%**: Company employee
- **0.3%**: Other

**Comments concerning returning to Japan in Q6**

**1. Those wanting to study abroad**

- I would like to study in a Japanese university very much. I think I will be able to learn many things in Japan, and I will be able to use and share the knowledge I obtain in Japan in my home country. (Kazakhstan, 17)
- Thanks to SAKURA SCIENCE, I am more interested in science and technology. Since the progress of science and technology will help the lives of people, I would like to be involved in science and technology as well. (Supervisor, Turkmenistan, 25)
- Japan is developed and its technology is also advanced. Laboratories and students are great and active. I would like my home country to grow like Japan. (India, 17)
- The university level is best. Japan is surely the most suitable place to pursue specialized and technical goals. (Philippines, 17)

**2. Those wanting to become researchers**

- I would like to study the environment, in particular about global warming. (Viet Nam, 16)
- Since Japan has so many Nobel laureates and there are plenty of things you need, the country is attractive. (Republic of Korea, 17)
- I think working with Japanese people will be very fun. (China, 15)

**3. Those wanting to become company employees**

- The working environment and housing environment in Japan looks good. (Maldives, 17)
- I would like to work in Japan by being dispatched from a company in my home country. (China, 15)

**Q7: What did you learn in Japan?**

- I deepened my understanding of Japanese culture and the education system, and interacting with students in the same generation as me from other countries expanded my views. I was lucky to be exposed to Japan’s high-level science and technology. My knowledge has certainly increased. (China, 17)
- I found that Japan is a neat, orderly, and culturally rich country. I also found that the country is the most suitable place to learn science. (Peru, 16)
- I feel that Japan has a vision for the future and thinks not only about the present but also about the future of the world. (Mexico, 17)
- Japan’s manner is extremely reasonable. Society is very developed. All of the facilities were designed with an awareness of ergonomics. (China, 17)
- I think that science is for all human beings. The world should work together for the progress of science. (Bangladesh, 15)
- I was able to acquire a large amount of scientific knowledge that I would not learn in school. (Indonesia, 17)
- Mutually caring about others will lead to a peaceful society. (Malaysia, 15)