

August 2015 vol.1

National High School Culture Festival

During the 39th National High School Culture Festival, which ran from July 30th to August 1st, Kyuyo High School's Earth Science Club received a prize (Bunkarenmei Sho) for their research on the topic of "Research about the mechanism of tornado occurrence in the Kanto Plains."

The results of their tornado reproduction experiments, conducted in a facility modeled after the Kanto Plains, showed that before a tornado's outbreak, there was a point of contact between the boundary of warm and cold air. They found that a tornado is produced when the center point of the turning, warm air and the ascending air current are vertically aligned.

Students' Comments

- We were very nervous, but we were able to give our best effort during the presentation. We made "yoshibue" for the first time at the reception.
- We were stuck when we were asked some difficult questions about the presentation. However, we were relieved to hear praise from many people. Although our presentation isn't perfect yet, we would like to refine it.
- For three days, I learned many kinds of things by participating in the high school festival. We found the other groups' presentations very interesting. We learned a lot from them. Also, we were able to learn about Lake Biwa's history and the creatures living in it when we visited the Shiga Prefectural Museum as part of an excursion. We had very valuable experiences.



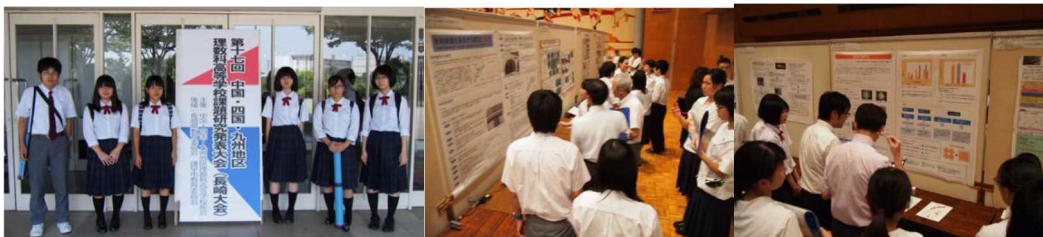
August 2015 vol.2

Chugoku Shikoku Kyushu High School Math and Science Course Research Project Presentation

On August 6th and 7th, two teams from Kyuyo High School participated in the contest. Their topics were: “Salinity tolerance of plants” and “The factors affected by radiation vol.2.” The students were very nervous because it was their first time giving a presentation in another prefecture. However, they had a good time interacting with other students. The group that presented “Salinity tolerance of plants” received second prize in the biology division and the group that presented “The factors affected by radiation vol.2.” received first prize in the earth science division.

Students' Comments

- We were impressed that other schools did not only present their research, but were also thinking about how to develop it further.
- By actually presenting and fielding questions, we were able to discover new possibilities and different ways of thinking.
- Since we are not used to presenting in front of people, we were nervous at first, but we gradually picked up some tips and tricks along the way and were able to explain our research effectively.
- The contest hall was filled with excitement in the scorching heat. We had a poster session about our research in front of students from other prefectures. We were very surprised that they spoke so well.
- There were many interesting research projects at the contest. I got some ideas from them and I want to do my best to improve my research.
- As I am still a club member now, sometimes I worry about studying for the college entrance examination. But today I am so happy because I was able to do my best at the poster session.
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August 2015 vol.3

Mathematics Festival

On Saturday, August 22nd, the “Mathematics Festival (Math Festa)” was held in Osaka. It is a nationwide contest for high school students who conduct research on various mathematical topics and is sponsored by the government to develop human resources in the field of science and technology.

The SS Math Club members from Kyuyo High School participated in the contest and gave a presentation on stage for about 10 minutes. The SS Math Club has tried to find the solutions to the Soma Cube for more than two years. It was their second time to give a presentation at Math Festa, so this time they did not get nervous.

Students' Comments

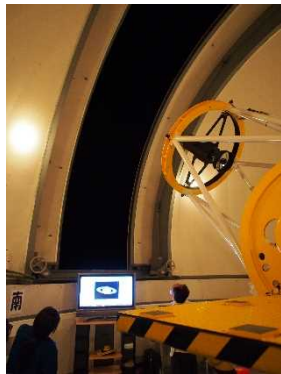
- Including this year, I have participated in the Math Festa three times. Every year, more and more schools are participating, so I thought the level of the presentations were getting higher and higher. Also, I have participated in the SS Math club for two and a half years, trying to find the solutions to the Soma Cube. It is still ongoing research, but I think that I was able to enjoy all the club activities.
- I was able to give a presentation without getting nervous this time. Sometimes doing club activities was not easy, but I had various experiences.
- At Math Festa in August, I had a good experience because I was able to listen to various presentations by other students. I felt good because I was able to complete my research for the contest.



August 2015 vol.4

Ishigakijima Field Trip

From August 10th to 12th, Kyuyo students went on a field trip to Ishigaki Island. We were worried about the weather but it was fine during the daytime. At night we were trying to observe the Perseids but we were unable to. However, we were able to see fireflies at Mt. Banna. Also, we went to Kabira Bay (one of Japan's 100 famous viewpoints), Yaeyama palm colony (national natural monument), and Tsuha stone (national natural monument). They are precious because they can be seen only on Ishigaki Island. We visited Ishigaki gauging station as well. Moreover, since Kyuyo is a Super Science High School, we were allowed to enter a restricted area and listen to a detailed explanation that the general public doesn't usually get.



Okinawa Science Mentor Program

Kyuyo students participated in the Okinawa Science Mentor Program every Friday between July 24th and August 21st. It is a program in which high school students who are interested in science can experience various things through five sessions with Okinawa Institute of Science and Technology Graduate University (OIST) students or scientists:

- 1) To dig deep into students' interested field of science
- 2) To experience daily life in OIST as scientists
- 3) To interact with scientists individually
- 4) To think about the future and a career as a scientist
- 5) To experience real world English

Students' Comments

- I felt two things. First, our daily lives and science are closely related and science is helpful for our lives. Second, although I have been learning English since junior high school, I got frustrated because I couldn't express my opinions well.
- OIST has many laboratories and machinery. All of them are amazingly expensive. I think it is important to study science.
- The most impressive thing was that I saw the components of DNA with an electron microscope by using the reflection of X-rays and ultraviolet rays.



August 2015 vol.6

OASES-Okinawa Attractive Science and Engineering Symposium

The Okinawa Attractive Science and Engineering Symposium (OASES) was held on Saturday, August 29th, at the University of the Ryukyus. Through the cooperation of the University of the Ryukyus and the Okinawa Prefectural Board of Education, this symposium aims to support the scientific research activities of junior high and high school students by giving them an opportunity to present their directed or independent research projects, as well as giving students, teachers, and researchers a chance to freely exchange ideas and opinions.

Seven groups from Kyuyo presented their SSH II in-class research projects. The researchers had many difficult questions for the students, but these served to further motivate the students. Additionally, Kyuyo students were also able to see and compare their projects with those from other schools, so it was a very meaningful experience.

Students' Research Topics

- Aniline black absorption rate
- Changing color and surface structure of Ryukyu mother-of-pearl through manufacturing methods
- Utilization of *I. cylindrica* as a biomass resource
- Comparing the amount of photosynthetic pigments in leaves grown in the sun against leaves grown in the shade
- Salinity tolerance of guppies
- Comparison of the amount of chlorophyll in green caviar grown under different conditions
- Distribution of mangroves on Okinawa Island



August 2015 vol.7

Super Science High School Research Contest

On August 5th, the earth science club took part in the “Super Science High School Research Contest” in Osaka. Among 203 schools, 43 schools had a poster contest and 5 schools, including Kyuyo, were chosen for the finals. At the contest, they made a presentation confidently in front of over 2,000 people, and responded properly to the questions. Although they missed first place, they received the “Chief Judge Prize,” which corresponds to second place.

Students' Comments

- It was my first presentation in front of a large group of people. I was nervous, but it was a good experience. It was good to be able to share the mechanism of tornadoes with many people. Also, during the question and answer session, many people asked us questions and pointed out aspects that we didn't notice. So we will be able to study those points. Also some people advised us on our research, and we were able to improve our research.
- I was surprised that I was selected to present the research from our high school. I'm glad that many people listened to our research. I felt like our research was well-recognized.

