

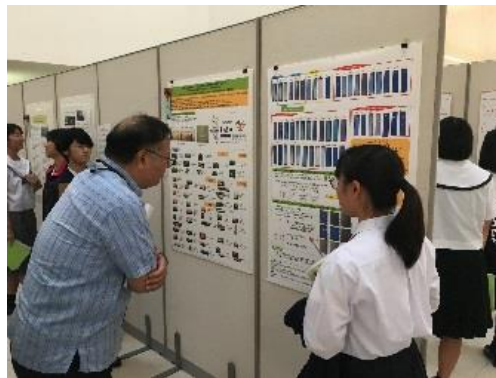
## October, 2018

### #20 The 42<sup>nd</sup> National Culture Festival for Senior High Schools( October 10, 2018)

The Natural Science Section at the 42<sup>nd</sup> National Culture Festival for Senior High Schools, and the Okinawa Prefectural 58<sup>th</sup> Exhibition for Science Award-winning works were held at the Okinawa Prefectural Museums. Many of Kyuyo students in the Science and Mathematics Course and members of SS clubs students exhibited their posters. The followings are the prize-winning works.

1. **"How to visualize the Standing Waves in the Kundt Tube Using Laser Light"** won The Second Prize, Okinawa Senior High School Science Teachers Association OB Award, to participate in Kyushu and National Meeting as a representative of Okinawa
2. **"Soils and Plants"** won the third prize, Okinawa Senior High School Science Teachers Association OB Award, to participate in Kyushu Meeting as a representative of Okinawa
3. **"Research on UV Absorbent Substances Included in Okinawan Plants – Finding the similar substances with Beniimo yam-"** won the third prize, to participate in Kyushu Meeting as a representative of Okinawa
4. **"The Relationships between Water Quality, Local Environment and Underground Structure"** won the third prize, to participate in Kyushu Meeting as a representative of Okinawa
5. **"Current Condition and Transition of Vegetational Cover in the Area of the Chibana Castle Ruins"** won the third prize

In addition, some students' newspaper on fieldtrip won the Science Newspaper Awards.



## #21 Kyuyo SSH Lecture in Chemistry (October 12, 2018)

We welcomed Dr. Fukumoto Kozo, professor at the Department of Science Education in the Faculty of Education, with the lecture titled “Let’s Measure it Any Way! –the Research Plan for Chemistry.”

The 1<sup>st</sup> grade students and those who were interested in the subject participated in his lecture. Starting with his self-introduction, Dr. Fukumoto explained chemical bond. To understand the characteristics of an atom, we have to understand how it combines with others. We need to a technology to separate and connect the bond in order to make new substance. To developing this kind of technology is called pure research. Developing the technology is highly paid. It is important to be aware of its profitableness when we work on our research. Dr. Fukumoto also taught us his own idea to make a memo. Lastly, he emphasized “What and How to measure.” Some students commented on this remark of his. Thank you, Dr. Fukumoto, for sharing your precious research experience!



## #22 Guidance for Parents on Tsukuba Research Trip of the 2<sup>nd</sup> grade students in Science and Mathematics Course (October 13, 2018)

The 2<sup>nd</sup> grade students in Science and Mathematics Course are going to have a research trip to Tokyo and Ibaraki from November 12 to 16. This trip is aiming to foster the students’ scientific interests and creativity, and to encourage their questing mind. They will visit advanced research institutions such as RIKEN, the Institute of Physical and Chemical Research, and University of Tsukuba.

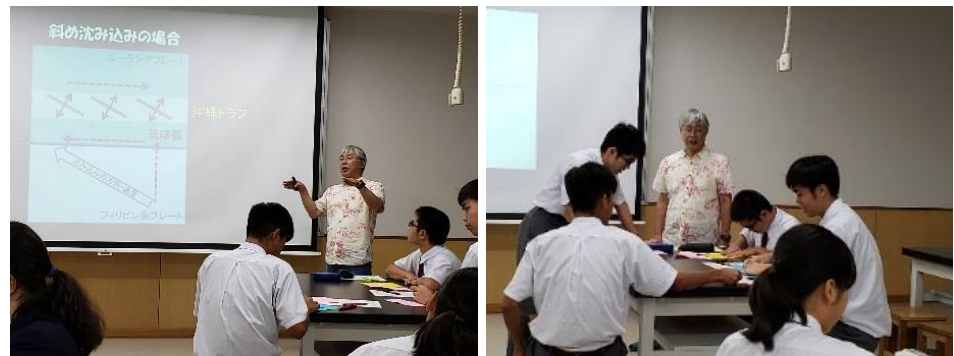
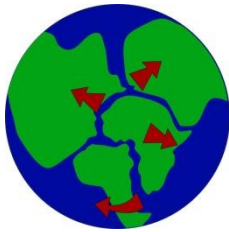
In order to let parents understand the significance and outline of this research trip, a guidance meeting was held at the Okinawa Civic Hall on October 13. Mr. Tomimura, who is in charge of the trip, explained with the slides, and a staff from a travel agency provided parents with handouts of the programs that students would join in Tokyo and Ibaraki. Most of the students seems to be looking forward to the trip!



### #23 Kyuyo SSH Lecture in Earth Science (October 17, 2018)

October 17 was a Kyuyo SSH Lecture Day! The Lecturer was Dr. Masahide Furukawa, a professor at the Physics and Earth Science Department in the Faculty of Science. The title of his lecture was “The Geology and Tectonics of Okinawa from the Whale’s View.” The 1<sup>st</sup> grade students and those who were interested in the subject participated in his lecture. He talked about how to investigate ocean floors with sonic wave. Surprisingly, whales talk on their frequency, which researchers use to investigate the ocean floor. The chart that was drawn using whale frequency is called whale’s eye view chart. He showed us the picture of Ryukyu Arc drawn by whale’s eye view. Furthermore, he talked about tectonics and continental drift, Ryukyu Trench, and Okinawa Trough as well. He said there is still unknown part in continental drift.

We were lucky to hear today’s lecture. Thank you, Dr. Furukawa!



### #24 Kyuyo SSH Lecture in Biology (October 19, 2018)

We had SSH Lecture day on October 19. Today’s field was biology. We welcomed Dr. Koji Sugio, a professor at the Graduate School of Education of the University of Ryukyus. The title of his lecture was “Living things have their own histories: an Introduction to Evolutionary Ecology – Revealing a history of a living thing by asking WHY?-.” He introduced a Dutch ethologist Niko Tinbergen’s four questions to understand animal behavior:

1. What stimulus elicits the behavior, and what physiological mechanisms mediate the response?
2. How does the animal's experience during growth and development influence the response mechanisms?
3. How does the behavior aid survival and reproduction?
4. What is the behavior's evolutionary history?

Dr. Sugio said, “These four viewpoints are very useful to obtain deeper insights to understand various phenomena in human society as well.” In addition, he emphasized we need to be aware of what we don’t know. To find out what we don’t know, he recommended us to read research papers. Remember that Google Scholar is a good service to retrieve research papers!

