

2020 Fiscal Year



Minamata Environmental Academia Activities Report



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Minamata City Community Support Division
Minamata Environmental Academia

Introduction

The Minamata Environmental Academia was established in April 2016, as a center for higher education, research, and collaboration between industry, academia, government, and the general public. Since then, the Academia has welcomed high school students, university students, and researchers from Japan and abroad.

Based on the lessons learned from Minamata disease, we conduct projects such as human resource development and information dissemination in order to promote our efforts towards the formation of a ‘sustainable local community,’ not only in the Minamata area, but also throughout Japan and abroad. This institute is also used for training of officials from local governments and the Ministry of the Environment, workshops organized by international organizations, symposiums and so on.

In July 2020, Minamata was recognized by the Japanese government as an “SDGs Future City.”

However, in FY 2020, in order to prevent the spread of the novel coronavirus disease, we have had to suspend or restrict the usage of our facilities, and we have also had to alter or cancel many of our planned projects. In particular, all of the training we have accepted from Japan and abroad has been canceled due to movement restrictions imposed in response the declaration of a state of emergency and so on.

Under these circumstances, we have taken measures to prevent the spread of infection, such as limiting the number of people who can use our facilities, ensuring thorough disinfection and ventilation, and providing a checklist for infection control.

Of course, we have also applied measures to prevent the spread of infection to our events. While making use of online conferencing tools, and limiting the number of participants in events, we have hosted citizen open lectures and programming workshops and so on for the people of Minamata.

Although the situation regarding the novel coronavirus disease continues to pose challenges, we will continue to promote the activities of the Minamata Environmental Academia with your support and cooperation.



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Project Status in Regard to the Coronavirus Crisis

With regard to our FY 2020 projects in the wake of the coronavirus crisis, we implemented measures against the novel coronavirus disease by reducing the scale of our projects, and using online conference tools where possible.

Project Category	Project Name	Project Overview	Status	Notes
Promotion of Education/Research Activities	Minamata Environmental Academia Project for Promotion of Survey and Research Activities	Visits universities and research institutions in Japan and overseas. Mutual cooperation and strength/expand networks	Cancelled	Cancelled due to movement restrictions imposed in response to the coronavirus crisis.
	Junior/High School Student Research Support Project	①Research activity support ②Programming workshop	①Partially Completed ②Partially Completed	(Page 8)
	Information Dissemination Infrastructure Development Project	Creation of activity reports etc.	Completed	Created 2019 Activities Report, display panels for the Minamata Environmental Academia.
Inspection and Training Projects	Hosting Training programs with universities	Hosting training programs with Keio University, Kumamoto University, Prefectural University of Kumamoto.	Partially Completed	Due to cancellations at each university, portions were conducted online. (Pages 2 and 7)
	Sakura Science Plan - Minamata Training Program	Japan Science and Technology Agency (JST) "Sakura Science Plan" Training Program	Cancelled	Cancelled due to movement restrictions imposed in response to the coronavirus crisis.
	National Environmental Research and Training Institute (NETI) – Minamata Training Program	Hosting a training program, for Ministry of the Environment staff and local government staff, run by NETI	Cancelled	Cancelled by NETI.
Fostering Human Resources	Minamata Environmental Academia Symposium	Symposiums held as an opportunity for citizens to gain new knowledge.	Cancelled	A symposium on 1/16 was cancelled following a coronavirus outbreak within the city.
	Citizen Open Lectures	Seminars on topics and issues that are relevant to the public.	Completed	(Page 3)
	Junior Science Seminar	Science experiment classes for elementary and junior high school students.	Completed	(Page 6)
Minamata High School Support Projects	High School-University Collaborative Future School	Human resources development between Minamata High School and partner universities.	Partially Completed	(Page 7)
	Mokuiku ("Wood Learning") Workshop (Industry-School-Government Collaborative Project)	A collaborate workshop between industry, school, and government, based on the theme of local wood.	Completed	(Page 5)
	Minamata High School SGH Activities Support	An SDGs workshop in support of Minamata High School's SGH Activities.	Completed	(Page 4)
International Support Programs	International Support Programs	Speaking out about Minamata's experiences and lessons to the world.	Completed	(Page 9)

Remote Lectures

Minamata Environmental Academia conducts remote lectures using video conferencing systems and online conferencing tools. So far, we have hosted remote lectures with a variety of partners, such as Minamata High School-Keio University, Minamata High School-Vietnam Japan University (Vietnam), and Minamata City-Keio University, spreading the knowledge, wisdom, and lessons that Minamata can provide.

Minamata High School ⇄ Keio University



The Minamata Environmental Academia hosted two remote lectures between Minamata High School and Keio University, which has a cooperation and collaboration agreement with Minamata City.

Students from the Faculty of Environment and Information Studies at Keio University led a project to create an “ideal, futuristic, educational, and fun” Minamata using Minecraft, with the aim of helping high school students develop the habit of thinking about the future, and learn about information technology.

Part 1 Date: Dec 8 2020 (Tue)
Location: Minamata Environmental Academia
Participants: 46
(Minamata High School: 36, Keio University: 10)

Part 2 Date: Jan 26 2021 (Tue)
Location: Minamata High School
Participants: 42
(Minamata High School: 35, Keio University: 7)



Minamata City ⇄ Keio University

Minamata City public officials gave a remote lecture about the city's initiatives to Keio University, which has a cooperation and collaboration agreement with Minamata City.



Date: Jun 2 2020 (Tue)

Subject: Minamata Environmental Academia's initiatives
Lecturer: Minamata City Planning Division, Minamata Environmental Academia
Lecture attendees: 9



Date: Oct 20 2020 (Tue)

Subject: Minamata's waste problems
Lecturer: Minamata City Environment Division, Environmental Clean Center
Lecture attendees: 14



Date: Nov 17 2020 (Tue)

Subject: Minamata's local history
Lecturer: Minamata City Board of Education, Lifelong Learning Division
Lecture attendees: 9

Minamata Environmental Academia Citizen Open Lectures

In order to foster human resources development, Minamata Environmental Academia cooperates with universities and researches to host regular public seminars, based on themes that are familiar and useful to the lives of residents, with the aim of forming a sustainable local community. At the lectures, participants don't only listen to a lecture-a workshop is held so that those in attendance are actively participating.

※ In an effort to prevent the spread of the novel coronavirus disease, the number of participants was restricted and lectures were conducted using online conference tools.

The Sea of Minamata and its Creatures

Date: Oct 3 2020 (Sat)
Lecturer: Mr. Makoto Morishita, Director,
Minamata Diving Service SEA HORSE
Participants: 20



In this lecture, participants were introduced to scenes of seahorses such as the "himetatsu" spawning, sea desertification caused by excessive numbers of sea urchins, and the plastic waste problem. It provided a rare and valuable opportunity to peer into Minamata's sea.

Let's Learn About SDGs 2020

Date: Oct 10 2020 (Sat)
Lecturer: Minoru Koga, Ph.D., Director General,
Minamata Environmental Academia
Participants: 21



In this lecture, Director Koga explained an overview of SDGs, as well as the 17 fundamental goals it comprises. Also, in light of Minamata being selected as an "SDGs Future City" in July 2020, a city official gave an explanation about "SDGs Future City."

SDGs Standard Thinking

: Will "sustainable development" come to an end?

Date: Oct 24 2020 (Sat)
Lecturer: Dr. Shunichi Honda, Program Officer,
UNEP International Environmental
Technology Centre

Participants: 15

※Held online (Lecturer⇄Minamata Environmental Academia)



In this lecture, Dr. Honda explained whether the end of sustainable development will come based on three keywords: "economy," "energy development," and "environmental issues." Participants learned that everyone making small, individual actions is the most important part of realizing our Sustainable Development Goals.

Anger Management

~Let's get along with our anger~

Date: Jan 23 2021 (Sat)
Lecturer: Mr. Takafumi Miyamoto,
Anger Management Facilitator,
Japan Anger Management Association

Participants: 36

※Held online (Minamata Environmental Academia ⇄Participants)



In this lecture, participants learned that the source of anger is not "someone" or "something," but a gap between our expectations and reality. Participants were also introduced to "impulse control" as a training tool for controlling anger.

Minamata High School SGH Summer Project “SDGs Workshop”

Date: Aug 18 (Tue) Participants: Minamata High School 2nd Year Students (27)

As part of our support for the SGH (Super Global High School) activities being undertaken by Minamata High School, we conducted an SDGs workshop.

First, Minoru Koga, Ph.D., Director General, Minamata Environmental Academia, gave a lecture titled “Let’s Learn About SDGs 2020,” which covered the basic overview and the 17 fundamental goals of SDGs. Following this, the participants were split into groups, and conducted group work based on the theme of “making SDGs about yourself.” Each group chose a theme based on the 17 goals of SDGs, and then discussed what they could do to help, before presenting their findings, using a poster.

【Lecture】

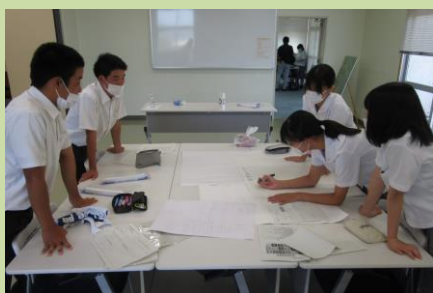
“Let’s Learn About SDGs 2020”

Lecturer: Director Koga, Minamata Environmental Academia



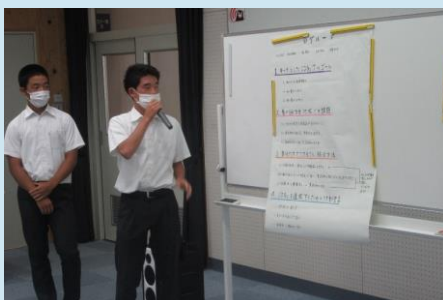
【Group Work】

Students were split into five groups, and then picked a theme based on the 17 goals of SDGs. They discussed why they chose their theme, what problems exist in their community in relation to that theme, and what they could do in order to help achieve that goal. Then, they made a poster to summarize their findings.



【Presentation】

Each group presenting their findings, using the poster they made. The vice-principal of Minamata High School provided a critique of each presentation, and finally, Director Koga, Minamata Environmental Academia gave his thoughts.



“Mokuiku” (Wood Learning) Workshop (Industry-School-Government Collaboration)

Participants: Minamata High School Department of Electrical and Architectural Systems, Architecture Course 3rd Year Students (10)

The Minamata Environmental Academia supports Minamata High School's research activities and provides opportunities for students to learn about sustainable community development, such as forest conservation, by forming industry-School-government ties with local lumber at its core. In FY 2020, ten students of Minamata High School took a lecture on the ‘current state and issues surrounding forest conservation and locally produced lumber’ from a Forest Management Planner. They designed and constructed “resource boxes” and benches for collecting recyclable waste, which are used of the Minamata Environmental Academia, Minamata City General Hospital & Medical Centre, and Michi-no-eki Minamata (Roadside Station Minamata).

【Lecture】

“The current state of forest conservation and locally produced lumber, and surrounding issues.”

Date: Aug 28 2020 (Fri)

Location: Minamata High School

Lecturer: Mr. Mikio Ogata,
Forest Management Planner,
Wood one LLC



【Construction】

Constructing wooden products with advice from an expert (Minamata City Carpentry Association).

Period: Sep ~ Dec 2020

Location: Minamata High School

Result: 30 Resource Boxes, 2 Wooden Benches



【Presentation Ceremony】

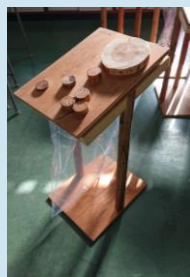
Date: Feb 15 2021 (Mon) Location: Minamata Environmental Academia

Participants: 17 (Minamata High School, Wood one LLC, Minamata City Carpentry Association, Minamata Tourism and Products Association, etc.)



Resource Box:

Minamata High School students devised this project to make effective use of stumps left in the forest and discarded, stripped cores after wood processing. It is designed for collecting empty cans and plastic bottles, and by intentionally showing its contents, it aims to reduce the amount of waste discarded. With the goal of collecting empty cans, plastic bottles, and other plastics as “resources,” rather than “waste,” it was given the name “resource box.”



Minamata Environmental Academia Junior Science Seminar

Date: Nov 28 (Sat) Participants: Elementary/Junior High School Students (21)

The Minamata Environmental Academia hosted its Junior Science Seminar for Elementary and Junior High School students, who will be the future leaders of Minamata. Under the guidance of university professors and researchers, students conducted specialized experiments and practical training to broaden their knowledge, with the goal of developing the skills to think and learn for themselves. This year, for the first time, six Minamata High School students participated as volunteer staff, assisting with the experiments and supporting the children.

※Although normally held during the summer break, this year's seminar was held in Autumn as a result of the novel coronavirus disease.

Hashishin School

“Let's look at transparent gas”



Lecturer: Prof. Takeshi Hashishin,
Kumamoto University

Participants: 5

Tanaka School “Let's find wall materials to keep you warm in winter”



Lecturer: Prof. Akio Tanaka,
Kumamoto Prefectural University

Participants: 4

Torii School

“Let's make a thermometer”



Lecturer: Prof. Shuichi Torii,
Kumamoto University

Participants: 4

Marumoto School

“Let's look at the real life ‘Cells At Work’”



Lecturer: Dr. Masumi Marumoto,
National Institute for Minamata Disease

Participants: 4

Agri-Light School

“Let's measure plants”



Lecturer: Mr. Yoshimitsu Sonoyama,
President, Agri-Light Lab Inc.

Participants: 4

★Main impressions from students

- I want to make use of gas in the kitchen.
- Data input on the PC was interesting.
- It was interesting how just by measuring the voltage, we could tell the temperature of different things.
- It was difficult to find any cells other than red blood cells.
- I want to make use of this when I think of acidity and sugar levels and how I taste bitterness.
- I want to apply this to my schoolwork and my daily life.
- I was able to do things that I couldn't do in my normal science class.
- I want to teach what I learned today to everyone at school.

High School-University Collaborative Future School

Minamata Environmental Academia hosts a “High School-University Collaborative Future School” with universities and other institutions which cooperate and collaborate with Minamata City and Minamata High School. Through collaboration within and outside the local region, this program aims to foster the development of those who will be responsible for its future.

Keio University × Minamata High School

In 2020, the workshop, to be held in Minamata, was unfortunately suspended as a result of the novel coronavirus disease, and so an online workshop, using online conferencing tools, was held instead.



【Session 1】

Date: Dec 8 2020 (Tue)
Location: Keio University ⇄ Minamata Environmental Academia
Participants: 45 (36 Minamata High School Students, 9 Keio University Students)
Content: Explanation by Keio University Students, and a recreation of Minamata using Minecraft.



【Session 2】

Date: Jan 26 2021 (Tue)
Location: Keio University ⇄ Minamata High School
Participants: 42 (35 Minamata High School Students, 7 Keio University Students)
Content: Places to be recreated in Minecraft (Minamata High School students presentation), and how to recreate them on a map.

Vietnam Japan University (Vietnam) × Minamata High School

In support of Minamata High School's Super Global Highschool activities, we created an opportunity for international exchange with Vietnam Japan University (VJU) in Vietnam, and conducted an online workshop using online conferencing tools.



【Session 1】

Date: Nov 6 2020 (Tue)
Participants: 18 (6 Minamata High School students, 12 VJU students)
Content: Overview of Minamata City (Minoru Koga, Ph.D., Director General, Minamata Environmental Academia), Presentation about Minamata High School's activities (Minamata High School students), Exchange of opinions



【Session 2】

Date: Dec 25 2020 (Fri)
Participants: 4 Minamata High School Students
Content: Vietnamese Culture etc. (VJU Official: Mr. Masashi Yamaguchi)



【Session 3】

Date: Feb 1 2021 (Mon)
Participants: 13 (6 Minamata High School Students, 9 VJU students)
Content: Presentation about Lunar New Year in Vietnam (VJU students), Exchange of opinions

【Vietnam Japan University (Vietnam)】 Vietnam Japan University is a master's graduate school established in September 2016 as a joint venture between the governments of Japan and Vietnam. In 2018, a network was established with the school through the Minamata Environmental Academia Survey and Research Activities Promotion Project, and since then, a number of exchange projects are being implemented, such as inviting trainees to the Sakura Science Plan Minamata Training Program.

Junior/High School Research Activity Support Project

We conducted a research activity support program for junior and senior high school students with the aim of fostering human resources who, through their research activities, aim to develop technologies that will contribute to the sustainable development of their community and society into the future.

A Researcher's Job~Development of Taste Sensors~

Eight students of Junior/High School received a lecture by the developer of a “taste sensor,” which is used in the development of food products. The lecture introduced the inner workings of taste sensors, which can quantify taste, and how they can be used, as well as anecdotes from the development process, which showed that there can be opportunities for research hiding in plain sight.

Date: Feb 6 2020 (Sat)
Participants: Junior/High School Students (8)
Location: Online (Lecturer⇄Participants)
Lecturer: Dr. Kiyoshi Took, University Professor, Research and Development Center for Five-Sense Devices, Kyushu University Institute for Advanced Study



Programming Workshop

An expert provided programming mentoring to Minamoto High School students, in support of their research activities in the field of information science. In addition to the points taught in the mentoring session, the lecturer talked about recent trends in system development, and what he wanted the students to learn in the future.

Also, elementary and junior high school students received mentoring support while they undertook two programming projects: “Let’s make traffic lights!” and “Let’s run a robot car by programming!”

【Mentor Growth】

Date: Oct 29 2020 (Thu)
Lecturer: Mr. Yazoo Mahtani, Group Leader, Nittetsu Hitachi Systems Engineering Inc.
Participants: Minamoto High School Department of Architectural Systems, Electrical Course, 2nd Year Students (7)



【Programming Workshop (※)】

Date: Feb 13 2021 (Sat)
Participants: Elementary and Junior High School Students (16)



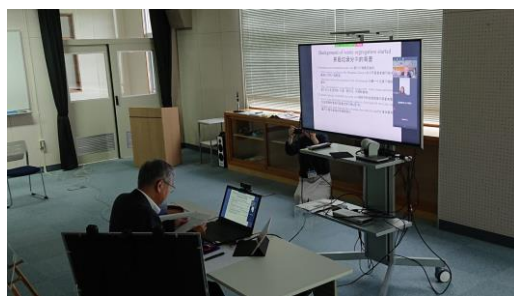
※ There were plans for Minamoto High School students who had received mentor training to serve as instructors and teach programming to elementary and junior high school students, but due to the novel coronavirus disease, the high school students were unable to participate, and so Minamoto Environmental Academia staff served as mentors.

International Support Programs

In FY 2020, due to the novel coronavirus disease, we were not able to host international training and conferences, but we were able to participate in online workshops held overseas.

Online Presentation at “the 15th International Conference on Waste Management and Technology”

On June 30 2020, Minoru Koga, Ph.D., Director General, Minamata Environmental Academia participated in the 15th International Conference on Waste Management and Technology, hosted online by the Basel Convention Regional Centre for Asia and the Pacific (School of Environment, Tsinghua University, China). The conference, which took place over three days, saw 3,024 people from 17 countries participate online. On the final day of the 30th, Director Koga, Minamata Environmental Academia gave a presentation on “Segregation and Recycling System of Municipal Wastes with Participation of Residents in Minamata City, Japan” In his presentation, he introduced Minamata’s resource waste separation initiatives, which increased the recycling rate to 40%, Minamata Eco-Town enterprise, the beautiful waterways that have developed due to increased environmental awareness, and the efforts the Minamata Environmental Academia have made to create a sustainable community. The organizers highly praised the fact that Minamata’s waste separation in cooperation with local residents, which has grown to over 20 different categories, has continued for 27 years. They also suggested that it is important to pass these activities on to the next generation.



Online Workshop for “Project for Promoting Minamata Convention on Mercury by making the most of Japan’s knowledge and experiences”

Sponsored by the United Nations Environment Programme (UNEP), this project aims to promote the Minamata Convention on Mercury in the Asia Pacific region, which was adopted in 2013. Last year, Inception Workshop was held at the Minamata Environmental Academia, but this year, due to the novel coronavirus disease, the workshop was held online, with about 100 participants from around the world.

【First Workshop】 Dec 2 ~ 4 2020

In the opening session, Director Koga, Minamata Environmental Academia gave a speech, followed by lectures by the National Institute for Minamata Disease and the Office of Mercury Management, Ministry of the Environment and so on. Then, there was a discussion by the UNEP Regional Office Asia and the Pacific.



【Second Workshop】 Mar 2, 4, 12 2021

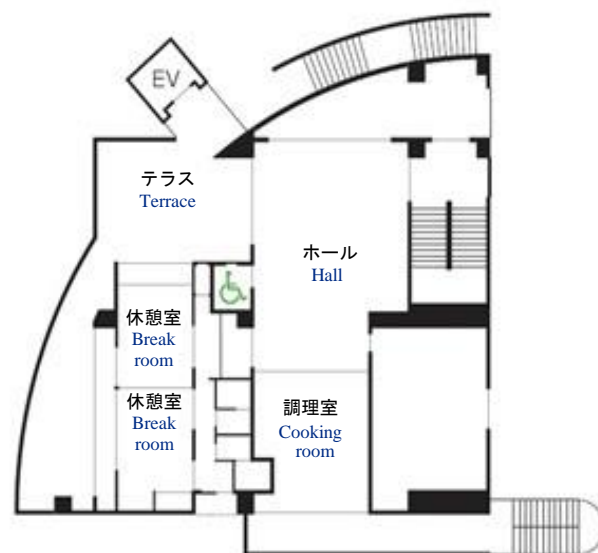
On March 4, Director Koga, Minamata Environmental Academia gave a presentation on the history of Minamata, and its environmental efforts.



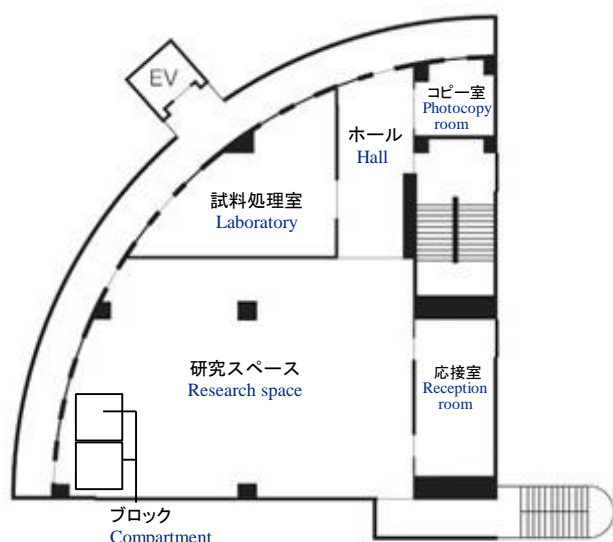
Minamata Environmental Academia Facilities Overview



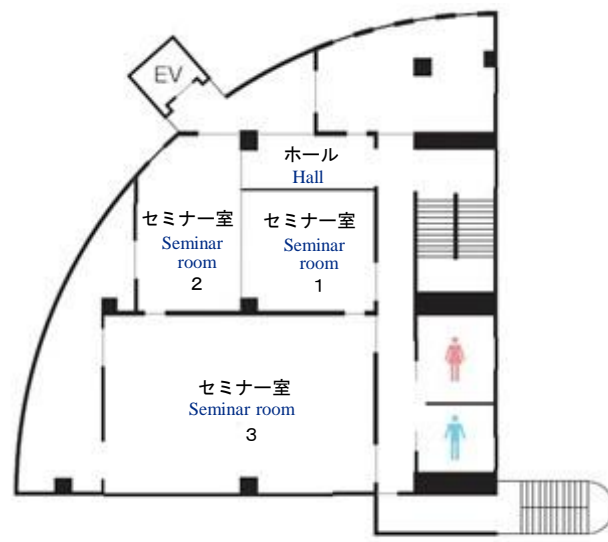
1 F



2 F



3 F



4 F



- ◆ Opening Hours: 09:00 ~ 19:00
- ◆ Closed Days: Weekends, Public Holidays, and the New Year period (Dec 29 ~ Jan 3)



SDGs未来都市みなまた

Minamata - SDGs Future City

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