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（学校用）

様式 A-1
(FY2025)

2026 年 3 月 5 日

サイエンス・ダイアログ　実施報告書

1. 学校名: 兵庫県立川西緑台高等学校

2. 講師氏名: Dr. Huong Thu NGUYEN

3. 講義補助者氏名:

4. 実施日時: 2026 年 3 月 2 日（ 月 ） 11 : 40 ～ 12 : 30

5. 参加生徒: 2年生 37人、 年生 人、 年生 人（合計 37 人）
   備考:（例:理数科の生徒）総合理数コースの2年生

6. 講義題目:Tiny Living Organisms: Little Helpers for Our Living Environment

7. 講義概要:My research focuses on environmental engineering and sustainable technology. I study how tiny living organisms that we cannot see with our eyes, called microorganisms, can help clean polluted water. These microorganisms can break down harmful chemicals in dirty water (wastewater) and make it cleaner. This method is called biological treatment, an environmentally friendly solution because it does not create new harmful substances and does not use much energy. I am especially interested in understanding how microorganisms do this important work and what makes them so effective. By learning from and working together with these tiny living organisms, I believe humans can develop smarter and more sustainable technologies. In other words, I hope to “collaborate” with these tiny and magical living organisms to protect the environment and build a more sustainable society and a healthier planet.

8. 講義形式:
   ☑対面 ・ □オンライン （どちらか選択ください。）
   1) 講義時間 40 分 質疑応答時間 10 分

   2) 講義方法（例:プロジェクター使用による講義、実験・実習の有無など）

   3) 事前学習
      ☑有 ・□ 無 （どちらか選択ください。）
      使用教材:

9. その他特筆すべき事項:

For Web posting

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Form B-2
(FY2025)
Must be typed

Date（日付）
06/03/2026 （Date/Month/Year：日/月/年）

Activity Report -Science Dialogue Program-
（サイエンス・ダイアログ 実施報告書）

- Fellow's name（講師氏名）: NGUYEN THU HUONG（ID No. P24105）

- Name and title of the lecture assistant（講義補助者の職・氏名）
Ms. Emi Fujiwara, English Teacher, Hyogo Prefectural Kawanishi-Midoridai High School

- Participating school（学校名）: Hyogo Prefectural Kawanishi-Midoridai High School

- Date （実施日時）: 02/03/2026 （Date/Month/Year:日/月/年）

- Lecture title（講義題目）:
Science is the courage to write on the board in many colors

- Lecture format（講義形式）:
◆☒Onsite ・ □Online (Please choose one.)（対面 ・ オンライン）（（どちらか選択ください。））
◆Lecture time（講義時間） 50 min（分）, Q&A time（質疑応答時間） 10 min（分）
◆Lecture style（ex.: used projector, conducted experiments）
（講義方法（例:プロジェクター使用による講義、実験・実習の有無など））
Slide-based lecture using a projector, interactive discussion with students, and Q&A session.

- Lecture summary（講義概要）: Please summarize your lecture within 200-500 words.

The lecture was designed as an open and interactive dialogue with high school students about the meaning of science. The talk began with a simple question: "What is science?" This question was used to encourage students to reflect on their own perceptions of science and to create a relaxed atmosphere for discussion. I then shared my own scientific journey so that students could see what science means to me personally.

In the first part of the lecture, I introduced myself and shared my background as a researcher from Vietnam currently working in Japan. I also briefly introduced Vietnam and highlighted some interesting similarities between Vietnamese and Japanese cultures. This helped create a connection with the students before moving into the main theme of the lecture. The central idea of the lecture was that science is not a single straight path but a journey with many "colors." I shared my personal scientific journey and described how different stages of my life were associated with different colors. For example, science sometimes appeared grey during periods of uncertainty, black during difficult moments, red when discovering something exciting, and green when developing new ideas. Through this story, I wanted to show that the process of research

naturally includes doubt, failure, curiosity, and discovery.
In the second part of the lecture, I introduced my research topic on wastewater treatment from textile industries. I first explained how dyeing processes produce colored wastewater and why this pollution can harm aquatic ecosystems and human health. I then introduced the idea of using microorganisms to remove these dyes. Instead of relying only on chemical or physical treatments, scientists can work together with microorganisms to treat wastewater in a more sustainable way. However, an important message I wanted to share with the students was that microorganisms are not simply “tools” that humans control. They are living systems with their own biological needs and priorities. Therefore, understanding how microorganisms live, what motivates their activities, and how they interact with their environment is essential for designing better treatment systems. In this way, environmental biotechnology is not only about controlling nature, but also about learning how to work together with microorganisms in a balanced and cooperative way.
Finally, I concluded the lecture by emphasizing that science is a continuous process of searching again and again. Rather than encouraging students to become scientists, I simply hoped to share my story and show that everyone can discover their own “colors” through their experiences. In this way, I hoped the students could see science not only as knowledge in textbooks, but as a human journey filled with curiosity, challenges, and many different colors.

◆Other noteworthy information（その他特筆すべき事項）:
The lecture was conducted in an interactive style using slides and visual examples. Students were encouraged to ask questions throughout the talk. In addition to the students, several teachers, including the school principal, also attended the lecture and actively listened to the presentation. Their presence helped create a supportive learning atmosphere, and their feedback provided valuable perspectives on how students understand scientific topics.

- Impressions and comments from the lecture assistant（講義補助者の方から、本プログラムに対する意見・感想等がありましたら、お願いいたします。）:
The lecture was meaningful for our students. The most impressive part was about what does science mean for Dr. Huong. She used colors to express her life. That was also very interesting. Many students thought so too and wrote about it in their reports.

- Some photos were taken by Ms. Emi Fujiwara during the lecture.