

様式 A-1
(FY2024)

2025 年 2 月 10 日

サイエンス・ダイアログ 実施報告書

1. 学校名・実施責任者氏名: 和歌山県立向陽高等学校・松下 愉久
2. 講師氏名: Aristide MOKALE KOGNOU
3. 講義補助者氏名: 河原 壮太
4. 実施日時: 2025 年 2 月 7 日 (金) 14 : 10 ~ 16 : 00
5. 参加生徒: 1 年生 72 人、 2 年生 1 人、 3 年生 1 人 (合計 72 人)
備考: 環境科学科の生徒
6. 講義題目: The Power of Microbes : Understanding Microbial life & Its Applications
7. 講義概要:
カメルーンの歴史や文化を紹介した後、微生物の基礎について講義してくれた。微生物の生活への応用を中心にその特性と可能性を丁寧に説明してくれた。また、適宜クイズを入れてくれて、生徒の理解の確認と促進につながった。最後に、講師の研究テーマである土壌中の有機物汚染の分解について、簡単かつ分かりやすく説明してくれた。
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 90 分 質疑応答時間 20 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)
1: プロジェクター使用による講義
 - 3) 事前学習
有 ・ 無 (どちらかに○をしてください。)
使用教材
9. その他特筆すべき事項:
特になし

Form B-2
(FY2024)
Must be typed

Date (日付)
08/02/2025 (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): MOKALE KOGNOU Aristide Laurel (ID No. P24722)
- Name and title of the lecture assistant (講義補助者の職・氏名)
KAWAHARA Sota
- Participating school (学校名): Wakayama Prefectural Koyo High School
- Date (実施日時): 07/02/2025 (Date/Month/Year: 日/月/年)
- Lecture title (講義題目):
The Power of Microbes: Understanding Microbial Life & Its Applications
- 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) 60 min (分), Q&A time (質疑応答時間) 50 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))
Used projector

- Lecture summary (講義概要): Please summarize your lecture within 200-500 words.
The lecture explores the culture of Cameroon, the significance of microbial life, and the applications of microbial biotechnology. The presentation begins with an overview of Cameroon, highlighting its geography, population, languages, religions, and ethnic groups. It emphasizes the cultural diversity of Cameroon, often referred to as "Africa in miniature" due to its varied geography and cultures. The presentation also delves into the Bamileké ethnic group, their traditional costumes, food, tourist places, and famous personalities from Cameroon. The second part of the presentation focuses on microbial biotechnology. It explains microbes, their ubiquity, and their ecological importance. It discusses the applications of microbial biotechnology, including the production of antibiotics, enhancing food production, and addressing environmental issues through bioremediation. It also highlights the role of microbes in fermentation processes, such as brewing beer, baking bread, and producing yoghurt. The presentation concludes with a discussion of the innovative solutions driven by microbes, such as the use of *Pseudomonas putida* in bioremediation, *Arthrobacter* species in plastic degradation, and *Saccharomyces cerevisiae* in food production and fermentation. It also includes quizzes to engage the audience and reinforce the key points discussed.

◆Other noteworthy information（その他特筆すべき事項）:

- 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。）:

Mr. Kawahara Sota's role as a lecture assistant during the session at Wakayama Prefectural Koyo High School was instrumental in bridging language barriers and ensuring that students fully grasped the content being presented. His ability to translate complex concepts into accessible Japanese facilitated comprehension and fostered an engaging learning environment. Throughout the lecture, Mr. Kawahara skillfully interwove cultural references and local context into his translations, making the material more relatable and relevant to the students. Moreover, his enthusiasm and clear enunciation encouraged active participation, prompting students to ask questions and engage in discussions that enriched the overall experience. By maintaining a balance between fidelity to the original content and the nuances of the Japanese language, Mr. Kawahara enhanced the student's understanding and retention of the subject matter. His dedication to ensuring every student could connect with the lecture was evident, creating a supportive atmosphere that empowered students to express their thoughts and inquiries freely. Overall, Mr. Kawahara's contributions were vital to the success of the lecture, transforming it into an interactive and impactful educational experience.