

様式 A-1

R8 年 6 月 19 日

サイエンス・ダイアログ 実施報告書

1. 学校名: 山梨県立日川高等学校
2. 講師氏名: Dr. Vicky ANAND
3. 講義補助者氏名: 津田 和樹 様
4. 実施日時: R8 年 6 月 19 日 (金) 14:00 ~ 15:40
5. 参加生徒: 3 年生 高習熟クラスの生徒 41 人
備考: (例: 理数科の生徒)
6. 講義題目: How we see the invisible: The science behind maps and satellites
7. 講義概要: サテライトを利用した自然災害の予測等。
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 70 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)
プロジェクターでパワーポイントを利用した講義。実験・実習は無し。
3) 事前学習
☒ 有 ・ ☐ 無 (どちらか選択ください。)
使用教材: 研究に関するキーワードや研究内容の概要をまとめたハンドアウト。関連 URL での情報収集。
9. その他特筆すべき事項:

Form B-2

Date (日付) 19/06/2026

(Date/Month/Year: 日/月/年)

Must be typed

Activity Report -Science Dialogue Program-

(サイエンス・ダイアログ 実施報告書)

1.Fellow's name (講師氏名): Vicky ANAND (ID No. P25062)

2.Name and title of the lecture assistant(講義補助者の職・氏名) Kazuki Tsuda, Post graduate student

3.Participating school(学校名): Hikawa High School, Yamanashi

4.Date (実施日時): 19/06/2026

(Date/Month/Year: 日/月/年)

5. 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) 80 min (分), Q&A time (質疑応答時間) 30 min (分)

◆Lecture style(e.g. 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

6. Lecture title (講義題目): How we see the invisible: The science behind maps and satellites

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

This lecture, titled "How We See the Invisible: The Science Behind Maps and Satellites," introduces students to the fascinating world of Earth observation and remote sensing through the personal and scientific journey of the presenter. It begins with an overview of India, highlighting its geography, history, cultural diversity, education system, and major scientific achievements, including the development of the decimal system, the concept of zero, and modern space missions such as Chandrayaan-3 and the Mars Orbiter Mission.

The presentation then explores the fundamentals of satellites and remote sensing, explaining how satellites observe Earth from space using different regions of the electromagnetic spectrum, including visible, infrared, and microwave wavelengths. Students are introduced to various types of satellites and sensing techniques, such as passive and active remote sensing, as well as the concept of false-color imagery that enables scientists to visualize features not visible to the human eye.

A major focus is placed on the practical applications of remote sensing in understanding and managing Earth's environment. Examples include flood and drought monitoring, forest assessment, agriculture, disaster management, water quality analysis, and mapping river and ocean characteristics. Through real-world examples and satellite imagery, the presentation demonstrates how modern technology helps scientists observe environmental changes, predict hazards, and support sustainable resource management. Overall, the talk aims to inspire young students by showing how science, technology, and creativity come together to better understand and protect our planet.

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

The JSPS Science Dialogue plays an important role in inspiring school students by connecting them directly with active researchers working at leading institutions in Japan. Such interactions help students understand how scientific discoveries are made, expose them to cutting-edge research, and encourage curiosity beyond textbook learning. By sharing personal academic journeys, challenges, and real-world applications of science, researchers can motivate young minds to pursue careers in science, technology, engineering, and mathematics (STEM). Moreover, the program promotes international understanding and cultural exchange, allowing students to appreciate how science transcends national boundaries and contributes to solving global challenges such as climate change, natural disasters, and environmental sustainability. Early exposure to scientific thinking through programs like the JSPS Science Dialogue can nurture creativity, critical thinking, and a lifelong passion for learning among future generations.

9. 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 assistant extended full support during the entire session and worked diligently to convey the lecture content to the students in an understandable manner. Whenever required, the assistant translated and explained important concepts in Japanese, helping bridge language barriers and ensuring active participation by the students. This support played a significant role in the success of the JSPS Science Dialogue and enhanced the overall learning experience.

