

様式 A-1
(FY2023)

2023年 11月 27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: 札幌日本大学高等学校 河合健太郎
2. 講師氏名: Dr. Debasis D Mohanty
3. 講義補助者氏名: なし
4. 実施日時: 2023年 11月 4日(土) 11:00 ~ 12:40
5. 参加生徒: 1年生 10人、2年生 8人、__年生 __人(合計 18人)
備考: (例:理数科の生徒) 国際バカロレアコースの生徒
6. 講義題目: Earthquake Seismology
7. 講義概要: 地球の成り立ちと構成、大陸プレートの移動、地震のメカニズム等についての講義
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 80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)
プロジェクター使用による講義
 - 3) 事前学習
有 ・ (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:

Form B-2
(FY2023)
Must be typed

Date (日付)

(04/11/2023: 日/月/年)

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

- Fellow's name (講師氏名): Dr Debasis Mohanty (ID No. P22325)

- Name and title of the accompanying person (講義補助者の職・氏名)

NA

- Participating school (学校名): Sapporo Nihon University School, Kaminopporo

- Date (実施日時): 04/11/2023 (Date/Month/Year: 日/月/年)

- Lecture title (講義題目):

EARTH: Story of a special planet

- 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) 100 min (分), Q&A time (質疑応答時間) 20 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, Conducted Simple experiments and observations with explanations

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

The Lecture has encompassed the basic understandings of our Planet Earth from the perspective of it's origin, composition, geodynamics and evolution. This talk is designed for higher rank school students to fascinate them towards the Earth Science studies, to unravel many mysteries of our planet. The origin of our solar system and Earth has been demonstrated first and followed by the structure of Earth interiors. A concept of Plate tectonics and evolution of present-day geodynamics was thoroughly focused. Then the basics of Earthquake Seismology and social significance was demonstrated. I have taught the causes, dynamics and hazard associated with earthquakes and managed to connect them with different places of the Earth. Then, the scaling functions of earthquake and their intensities with different forms (Tsunami/Landslides/etc.) have been discussed. Further the advancement of earthquake science in determining the deep earth geodynamics and structures are briefly taught. At last, the social message from Earth Science towards the society well-being was described followed by a question-answer round session.

SD

※弊会記入欄

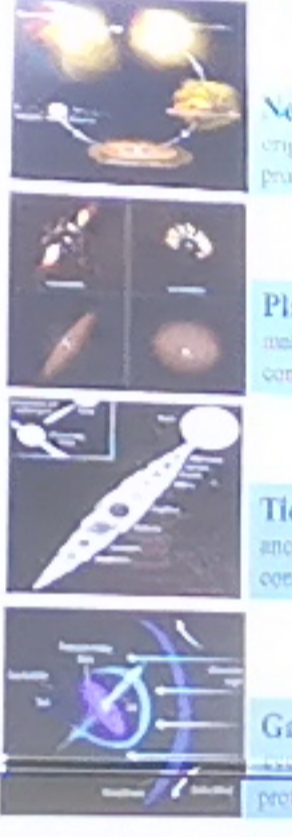
◆Other noteworthy information (その他特筆すべき事項):

Overall the lecture was a successful and fruitful for the young students of the school.

- Impressions and comments from the accompanying person (講義補助者の方から、本事業に対する意見・感想等がありましたら、お願いいたします。):

NA

Origin of the Solar System



Nebular Hypothesis: Kant, 1755; Laplace, 1796. Sun and all the planets originated from a giant rotating disk and gaseous cloud. The cloud cooled and contracted to produce planets.

Planesimal Hypothesis: Chamberlin and Moulton, 1950. Some material of gaseous matter was separated from Sun during its collision with another gaseous star. The matter condensed into smaller protoplanets and later into planets.

Tidal Theory: James Jeans, 1928. Large amount of matter was drawn from Sun and another star by the tidal forces of the stars during their collision. Later that matter was condensed into planets.

Gas Dust Cloud Hypothesis: C. von Weizsäcker, O. J. Schmidt, 1943. Planets formed by the gravitational aggregation of gas and solid particles in a disk around the protostar.

