

(For JSPS Fellow)

Form B-5

Date (日付)

29/01/2013 (Date/Month/Year: 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): Michael Lloyd Baker (ID No. P 11326)
- Participating school (学校名): Mizusawa High School
- Date (実施日時): 28/01/2013 (Date/Month/Year: 日/月/年)
- Lecture title (講演題目): (in English) Working in Physics
(in Japanese)
- Lecture summary (講演概要): Please summary your lecture 200-500 words.

The lecture was composed from eight main sections:

- (1) An introduction of the speaker and accompanying master student. This included some detail of the speaker's home country and described how he came to live and work in Japan as a JSPS fellow.
- (2) An introduction to magnetism and magnets including a demonstrative experiment using a magnetic liquid. A video showing magnetic ferrofluid art by Japanese sculpture artist Yasushi Miyajima was shown.
- (3) An example of what a researcher does based on a very simplified description of a recent project studying electron transfer.
- (4) A recap on the constituents of the atom.
- (5) A description of neutron scattering and x-rays for the study of materials and information about such facilities existing in Japan and around the world. A simplified description using diagrams and animations about how neutron and x-ray beams are made at these facilities and how experiments are performed.
- (6) A demonstrative experiment showing how a force is resultant by passing a magnetic material through a permanent magnet. A demonstrative experiment showing how an electrical current can be generated by passing a magnet through a wire coil.
- (7) Concepts of magnetic levitation were outlined and demonstrative videos were shown. A description of weird and wonderful applications for magnets were outlined.
- (8) A conclusion discussing how the audience has the opportunity to pursue their goals in scientific discovery.

- Language used (使用言語): English

- Lecture format (講演形式): Powerpoint presentation, video clips, participant operated demonstrations filmed on a projector for the whole audience could see.

◆Lecture time (講演時間) 90 min (分), Q&A time (質疑応答時間) 20 min (分)

◆Lecture style (ex.: used projector, conducted experiments)

(講演方法 (例: プロジェクター使用による講演、実験・実習の有無など))

Digital projector and sound equipment three demonstrative experiment outlined in the summary

◆Interpretation (ex.: assistance by accompanied person, provided Japanese explanation by yourself) (通訳 (例: 同行者によるサポート、講師本人による日本語説明))

Assistance from accompanying persons

◆Name and title of accompanied person (同行者 職・氏名)

Takuya Tanaka (Master student)

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

- Impressions and opinions from accompanied person (同行者の方から、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。):