

Method of Science Education 3

Teacher Licence
Subjects Requisites
2 credit

SAITO, Takeshi

1. Course Description

Learn the history and current situation of science education transition accompanying revision of junior high school course of guidance. We will grasp the problems of science education at junior high school and learn the method of teaching subjects. Learning about the qualities and abilities required as a junior high school science teacher, we aim to improve leadership skills by acquiring basic knowledge and skills. We will practice teaching materials making use of information equipment. About the assignment report, you will do group work and deepen understanding.

2. Course Objectives

Understand the goals of the curriculum of the junior high school science education curriculum and field targets, master the fundamental basic knowledge and skills necessary as a junior high school science teacher, and can use it for subject guidance and student guidance. Understand the effective use of information equipment and use it for instruction of subjects.

3. Grading Policy

Evaluate by Exercise test (60%), Exercise print, Assignment report (40%). Report will be returned and discussed.

4. Textbook and Reference

Textbook

TUKADA Masaru OYA Yoshiki EGUCHI Tarou SUZUKI Morihisa and 58 others "Science 1 Spreading to the Future" ISBN 978-4-402-018245

Keirin Kan.

MEXT "Junior High School Course of Study Guide Science Edition" July Heisei 29 year. ISBN 978-4-7625-0613-0. Gakkou Tosyo.

NIER Curriculum Research Center "Reference materials for learning evaluation for "Integration of guidance and evaluation" [Junior High School Science] June 2020

ISBN 978-4-491-04135-3 Touyoukann Syuppannsya

Reference

NIER Curriculum Research Center "Creating evaluation criteria, Evaluation method, etc. Reference materials for improving ingenuity "[Science of Junior high school] November Heisei 23 year.

ISBN 978-4-316-30047-4. Kyouiku Syuppann.

5. Requirements(Assignments)

Please review the content of the each lesson and study about the next theme before you go to class (30 minutes). I will talk about issues related to the science education. So, please investigate carefully and be sure to submit (90 minutes). Every time, I will hand out the basic problems of junior high school science. For questions that you can not solve the problem, please look it up in a reference book etc and answer and submit it next time (60 minutes).

6. Note

- Reference books are used from the first time so be sure to prepare them.
- Expect you to have wide range of interests and interests in natural science.

7. Schedule

- [1] Orientation.
- [2] Issue of science education for Junior High School①. About science departure.
- [3] Issue of science education for Junior High School②. What you can see from the results of academic achievement test.
- [4] Science objectives and Field objectives of junior high school science.
- [5] Curriculum formation and legal positioning of junior high school science.
- [6] Responding to students who need special support.
- [7] Utilizing familiar teaching materials.
- [8] Creating teaching materials using information equipment.
- [9] Observation · Experiment worksheet preparation①. Created with reference to the form.
- [10] Observation · Experiment worksheet preparation②. Expected results.
- [11] Safety management of observation and experiment. Accident cases and accident prevention.
- [12] Test question creation①. Question creation.
- [13] Test question creation②. Preparation and inspection of answer sheets including answers specifying point-by-point evaluation.
- [14] Observation · Experiment worksheet preparation, Test question creation, reconsideration and summary.
- [15] Summary of the qualities and abilities as junior high school science teacher.