



Characteristics and Forms of Science Activities



Characteristics and Forms of Science Activities

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Science Club Activities

2

Science Projects

3

Science and Technology Exhibitions



Science Club Activities

Activities organized in the form of clubs to promote science learning, scientific attitudes, cultivate social coexistence, analytical thinking, and to create various inventions for daily life.



Examples of Science Activities

- **Science Board Display**

Providing knowledge in science content and scientific facts, which may include content from lessons or additional scientific content and skills that aim to enhance students' knowledge.



Examples of Science Activities

- **Science Corner Setup**

Science Corner or Nature Study Corner . . .

A corner that allows children to use scientific skills to acquire knowledge through observation, comparison, classification, and categorization to understand the world, environment, and nature around them through play and simple experiments.

What to Prepare

- 1. Space**
- 2. Materials and Equipment**



Examples of Science Activities

- **Science Corner Setup**

- 1. Space**

- Must arrange space for experiments with tables that are easy to clean and allow easy access to necessary tools and materials or various experimental objects.
- Decorate the area with posters or illustrations about main scientific concepts such as life cycles, earth systems, or natural phenomena, and must have shelves for storing materials or tools used in experiments.



Examples of Science Activities

- **Science Corner Setup**

2. Materials and Equipment

- Scientific equipment or tools such as magnifying glasses, small microscopes, magnets.
- Simulation materials such as cell component models, simulated animal habitats, volcano models, or real materials such as small pets, plants, rocks.
- Books such as books about animals, nature, natural phenomena, various experiments, picture dictionaries.



Examples of Science Activities

- **Field Trip Organization**

An activity that helps students learn according to objectives through learning outside the classroom, enabling them to gain knowledge from direct experience and hands-on practice, utilizing existing learning resources beneficially.

Examples of Learning Resources

- **Science Center for Education, Bangkok Planetarium.**
- **National Science Museum.**
- **HM Queen Sirikit Museum of Natural History. (Geological Museum in Honor of His Majesty)**



Examples of Science Activities

- **Field Trip Organization**

Field trips are organized into 3 formats:

- **Day field trips (non-overnight)**
- **Overnight field trips**
- **International field trips (outside the Kingdom)**



**Science Center for Education,
Bangkok Planetarium**



**HM Queen Sirikit Museum of Natural History
(National Geological Museum in Honor of Her Majesty)**



Examples of Science Activities

- **Field Trip Organization**

Guidelines for taking students outside the educational institution of all types:

- 1. Consider safety in travel and accommodation.**
- 2. Must obtain permission from the authorized person before proceeding.**
- 3. The head of the educational institution or an assigned person, 1 person, shall be the supervisor and there must be teachers or assigned persons, 1 person per no more than 30 students, as assistant supervisors. In cases where there are female students participating, it is necessary to have female teachers as supervisors as appropriate.**
- 4. The head of the educational institution shall consider and select the travel route and vehicles to be used for travel, which must be in sturdy and stable condition, including drivers or vehicle operators who are knowledgeable and skilled.**



Examples of Science Activities

- **Field Trip Organization**

Guidelines for taking students outside the educational institution of all types (continued):

5. During travel, consider requesting cooperation from relevant agencies for advice or other necessary cooperation. In cases of taking students outside the educational institution using buses with not less than 40 seats, 3 vehicles or more, a lead vehicle should be arranged.

6. First aid equipment should be provided in each vehicle, and students with chronic illnesses should receive special care.

7. To protect the safety of students' lives and bodies, the educational institution should arrange travel insurance for students.



Examples of Science Activities

- **Field Trip Organization**

Regulations of the Ministry of Education on Taking Students Outside Educational Institutions, B.E. 2548 (2005)
and
Measures for Taking Students Outside Educational Institutions of the Ministry of Education.

Submit a permission request letter to the authorized person at least 15 days in advance.

- Taking students outside the educational institution. (non-overnight) ➤ School Administrator.
- Taking students outside the educational institution. (overnight) ➤ Director of Primary Educational Service Area Office. (PESAO)/Assignee/Authority one level above the educational institution.
- Taking students outside the Kingdom. ➤ Head of Government Agency./Assignee
- Supervision ➤ Teacher 1 : Students not exceeding 30 persons. If there are female students, there must be female teachers.



Examples of Science Activities

- **Field Trip Organization**

Regulations of the Ministry of Education on Taking Students Outside Educational Institutions, B.E. 2548 (2005)
and
Measures for Taking Students Outside Educational Institutions of the Ministry of Education.

- Submit permission request along with the project/proposal to the authorized person in advance.  Approve  Go
- Upon return, report to the authorized person for acknowledgment.
- Considered as official business.  Claim travel expenses.

Examples of Science Activities

- Field Trip Organization



Examples of Science Activities

- **Field Trip Organization**

Project Writing

The educational institution must prepare a project plan with daily activity schedules, assignment of duties, along with attaching a list of teachers and students traveling outside the educational institution, and must prepare a brief map showing the travel route and a diagram showing the location of the visiting educational institution or accommodation for verification purposes.



Examples of Science Activities

- **Field Trip Organization**

Project Writing

Details to be specified in the project

1. Project Title
2. Principles and Rationale
3. Objectives
4. Target
5. Implementation Procedures
6. Duration and Implementation Location
7. Implementation Plan
8. Activities
9. Budget
10. Project Manager/
Responsible Agency
11. Expected Outcomes
12. Project Type (New Project/
Continuing Project)



Examples of Science Activities

- Field Trip Organization

Example of Project Writing

ที่ ศธ ๐๔๐๒๕.๓๑๗/๐๓๖



โรงเรียนบ้านหนองตาไถ่ตลาดหนองแก
หมู่ ๑๑ ตำบลกุดกว้าง อำเภอนองเรือ
จังหวัดขอนแก่น ๔๐๒๑๐

๒๒ กุมภาพันธ์ ๒๕๕๖

เรื่อง การพานักเรียนไปทัศนศึกษานอกสถานที่

เรียน ผู้อำนวยการสำนักงานเขตพื้นที่การศึกษาประถมศึกษาขอนแก่น เขต ๕

สิ่งที่ส่งมาด้วย	๑.กำหนดการ	จำนวน ๑ ฉบับ
	๒.แผนผังการเดินทาง	จำนวน ๑ ฉบับ
	๓.รายชื่อผู้ไปทัศนศึกษา	จำนวน ๑ ชุด
	๔.โครงการทัศนศึกษา	จำนวน ๑ ฉบับ
	๓.แบบขออนุญาตผู้ปกครองพานักเรียนไปนอกสถานศึกษา	จำนวน ๑ ฉบับ

ด้วยโรงเรียนบ้านหนองตาไถ่ตลาดหนองแก มีความประสงค์จะขออนุญาตนำ นักเรียนชั้น ประถมศึกษาปีที่ ๖ ไปศึกษานอกสถานศึกษาในการไปครั้งนี้มีนักเรียน จำนวน.....๒๓.....คน มีครูและบุคลากรควบคุม.....๑๒.....คน โดยออกเดินทาง วันที่ ๗ เดือนมีนาคม ๒๕๕๖ เวลา.....๒๐.๐๐.....น. และจะไปตามเส้นทางผ่าน ๑.หาดนางรำ ๒.เรือหลวงจ๊กรินฤนุช ๓.พิพิธภัณฑ์เต่า ๔.ตลาดสามสาร โดยพาหนะ รถบัส ๒ ชั้น กลับถึงสถานศึกษา วันที่.....๘.....เดือน มีนาคม ๒๕๕๖ ค่าใช้จ่ายทั้งสิ้น จำนวน ๓๔,๕๐๐ บาท

โรงเรียนบ้านหนองตาไถ่ตลาดหนองแก จึงเรียนมาเพื่อขออนุญาตนำ นักเรียนไปทัศนศึกษานอกสถานศึกษาในครั้งนี้ ตามรายละเอียดดังข้างต้น

ขอแสดงความนับถือ

(นายเฉลิม สุระทิณีจ)

ผู้อำนวยการโรงเรียนบ้านหนองตาไถ่ตลาดหนองแก

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Examples of Science Activities

- **Science Debate**

Expressing opinions on scientific issues with agreement or disagreement by using claims, reasons to support or refute scientific arguments with reliable empirical evidence



Examples of Science Activities

- **Science Invention Competition**

Science invention refers to the development, improvement, or creation of something new that is tangibly demonstrated, such as equipment, tools, utensils, appliances, or machinery to provide benefits, increase efficiency, enhance convenience in use, reduce costs, or reduce labor.

Advantages

- Stimulate students to research and produce basic science, technology, and environmental inventions.
- Foster collaboration in working and exchanging ideas among members of the invention group.
- Promote creative thinking, reasoning, and the use of scientific process skills in problem-solving.



Activities !! Organizing Field Trip Activities Outside School

Requirements

Write an overnight field trip project for 2 days and 1 night at a science learning venue for upper primary or secondary school students. Present the project, itinerary, and field trip locations.

