

ASTI'S

SCHOOL LEVEL SCIENCE FAIR

**A RESOURCE GUIDE
FOR EDUCATORS**

THE IMPORTANCE OF SCHOOL LEVEL SCIENCE FAIRS

Science projects help students to put into practice the scientific knowledge that they have studied. Such projects will help them to learn much more about a subject that interests them. By organizing school level science fairs, students will have an opportunity to share their new ideas and discovery with others.

They will also learn much more about the use and application of the scientific methods and will also understand the variables found in all experimental procedures and find ways to control them. The importance of experiment duplication, collection of data and interpretation of results will also be valuable lessons for them.

The preparation and participation for the Science Fair will develop the value added skills of the students and besides improving their research skills, they could develop an interest in art and photography as they prepare their displays.

The students communication skills and confidence in presenting their ideas will also be developed by staging such fairs, and the participants can discuss their projects with judges and visitors and exchange ideas with other young people. Students will be able to list their experience in their job resume and their participation in these science fairs may also lead to scholarships or career opportunities.

HOW TO ORGANISE A SCHOOL LEVEL SCIENCE FAIR

School level science fairs have an impact in developing a student's interest in science as all the students in the schools will be able to participate.

The following steps will ensure a successful fair in your school.

1. Science Fair Project Research and Creation

The difficult part about organising a science fair is choosing a suitable science project. Students should be encouraged to develop a science fair project that will reflect their grade level and ability.

Here are some guidelines and suggestion to help the students pick the right science projects:

The students will be given simple experiments (from the Scientific Experiment Book) which are based on the syllabus and their ability. The teacher can choose the experiment for the students or let the students choose by themselves. The student could conduct the chosen experiment in a group of 4-5. Focus on the student's observation and interpretation. The students also required to do a creative scrap book on the various subjects individually.

Teachers may choose the experiments from the Scientific Experiment Book:

<https://www.asti.org.my/scienceexperimentsbooks/>

Detailed explanation about Scientific method:

<https://www.youtube.com/watch?v=cHJS1KrZryk&t=11s>

How to conduct an experiment:

<https://www.youtube.com/watch?v=jOqyJ0hr5xM&t=9s>

2. Set the date and place for the Science Fair

Schools must find a suitable location for the Science Fair that can accommodate the experiment displays of your students and remain open long enough for the judging process and visitors to view the exhibition.

Here are some tips:

- Calculate how much table space is needed.
- Determine which location will accommodate the appropriate number of tables.
- The location will determine how long you can hold the fair.
- If there is a need to use a location that affects the school, involve your principal in the decision making and planning at this point.
- If possible, book smaller rooms near the fair for judges' discussions.

Next set the date, taking into consideration, the planning required in the step above, the availability of the location and hold discussions with your principal. When the date of the fair draws nearer, schools will determine the specifics of the schedule for the fair.

After confirming the date and venue, promote your Science Fair within the school by putting up posters. Keep parents informed through school newsletters, WhatsApp messages, and posters at the school gates and so forth.

3. Locate and Select Judges

Schools must have the best judges for the Science Fair and there should be enough judges. Some of the best judges are neighboring school science teachers, student teachers from colleges and individuals from the local community with a strong background in science and technology.

If there is a university or college nearby, get in touch with the faculty of science to see if any students are interested in helping out. The general rule is "anyone with a science background and an interest in working with the students is an ideal candidate as a judge".

Organise a pre-event meeting to discuss the judging process. Make sure that the judges are rewarded for their participation (lunch and a school pen are good suggestions). Keep a contact list of the judges for future events.

Judge's duties on the fair day:

- Attend an orientation meeting prior to the fair.
- Judge projects by reviewing display boards/ experiment presentation by students.
- Assist in score tabulation after the judging process to verify accuracy of the award assignments.

4. Meet with the Science Fair Participants

Hold a brief meeting with all the participants prior to the School Science Fair and discuss items such as the outline of the event, appropriate behavior, proper dressing and etiquette when addressing judges and the public. Explain the judging procedure, the location and organisation of their displays for presentation and encourage them to invite their families, and friends to grace the event.

5. School Science Fair Day

Experiment Set-Up

In the morning, the students should set up their projects at the selected location which should be a large and visible area. Make sure that the location is booked early and also ensure that enough tables are set up in advance.

Label each table with a form so that the students will know where to set up their experiments. Make special consideration for power points, over-sized displays, additional props, etc.

- All the Students in groups will be demonstrating and presenting their experiments to the judges and visitors.

Public Viewing

Allow time for viewing of the projects by the school staff, other students and the public. A lunch break would be ideal and please take appropriate security measures for the displays, in the event the students have to leave their displays unattended for a period of time.

Activities for Visitors

In the afternoon, the area should be closed to enable the judges to view the projects and the participants must be available to answer questions from the judges as they view each display. Each pair of the judges are only required to assess about eight projects due to time constraints.

Make sure that the judges are provided with clipboards, pencils and evaluation sheets. Name tags or badges are also helpful to identify them, and thank the judges at the close of the fair. Collect all the evaluation forms and check if it is complete and the judging is fair. Engage independent volunteers to verify the judging, and make sure that all the displays have been judged.

Awards Presentation

Using the evaluation sheets, determine the top science project in the school science fair and award them accordingly. Schools will only be allowed a limited number of participants to compete at the next level of the competition, so select your winners using these criteria.

Schools should decide whether to acknowledge the participation of the students and they may be given a certificate stating their name ideally the title of the science project.

The school science fair organisers may also decide on how to reward the champion, 1st. runner –up, 2nd runner – up, third placed winner and a Potential Award for Best Presenters, Best Presentation, etc but the prizes should not be large and expensive as the emphasis is on participation.

End of the School Science Fair

Ask the students to put their displays in a storage area so that it can be collected later. Return the tables, signages and other equipment and thank the students for their participation and professionalism.

6. The Next Level of Competition

Start planning for the next level of competition and future science fairs as the students will advance further. These students need the support and encouragement from their schools and teachers and they will truly value and appreciate it, with the schools and teachers reaping great satisfaction from their accomplishments.

SCHOOL LEVEL SCIENCE FAIR SIMPLE PLANNER

1.BEFORE STARTING THE SCIENCE FAIR

Step1: Science Fair project research and creation

Step2: Formation of a Science Fair team in each Standard
(4-5 students per group)

Step3: Write a Proposal and Funding Strategy

Step4: Implementation of science projects for the Science Fair

Step5: Decide on the date and place for the Science Fair

2.UP TO TWO MONTHS BEFORE THE FAIR

Step1: Determine a detailed schedule for the fair

Step2: Plan and confirm the science fair location details

Step3: Source volunteers and judges

3.ONE MONTH BEFORE THE FAIR

Step1: Invite visitors for the fair

Step2: Decide on the awards categories and methods

Step3: Prepare supplies and equipment

Step4: Send a reminder to the parents and students

4.THE DAY OF THE FAIR

Step1: Set up the room and display boards

Step2: Conduct orientation for judges and the judging starts

Step3: Open the fair to Visitors (Determine visiting hours)

Step4: Awards Presentation

Step5: Acknowledgement for the Judges

Step6: Close of the event

5.FOLLOW UP PROGRAMMES

Step1: Send a thank you note to the volunteers and judges

Step2: The winner of the fair to participate in follow up competitions

Step3: Prepare and send a report to the Science Fair



Association of Science, Technology and Innovation (ASTI)
No 16A, Jalan 21/12, Sea Park,
46300 Petaling Jaya, Selangor Darul Ehsan
Tel: 03-7877 8571/ 03-7865 5557
Fax: 03-7872 9551
Email: nsfyc00@gmail.com
www.asti.org.my

www.nsfyc.org