



MindSpark Fair – Igniting curiosity, creativity, and enterprise

The Science, Business & Hospitality Fair

1. Introduction

The Science and Business Fair is an annual platform that allows students to showcase their creativity, innovation, and problem-solving skills in science and entrepreneurship. It encourages hands-on learning, critical thinking, and teamwork, while fostering a spirit of healthy competition.

2. Aims

- To develop scientific inquiry and entrepreneurial skills among students.
 - To encourage students to connect classroom learning with real-life applications.
 - To promote collaboration, communication, and presentation skills.
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3. Purpose

- To provide a platform for students to explore and present their innovative ideas.
 - To encourage curiosity and problem-solving through real-life applications.
 - To develop essential skills such as research, communication, presentation, and critical thinking.
 - To promote teamwork, collaboration, and leadership among students.
 - To strengthen social development by building confidence, responsibility, and a sense of achievement.
 - To inspire interest in science, technology, and entrepreneurship as future career paths.
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4. Objectives

- To inspire curiosity and creativity.
 - To apply scientific and business concepts to practical projects.
 - To strengthen research, analysis, and presentation skills.
 - To highlight sustainable and innovative solutions for community and global issues.
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5. Motto of the Fair

“Innovate, Inspire, Impact.”

6. Categories

The Fair is divided mainly into 8 categories, based on the students' grade level.

- Foundation – Category A (LKG and UKG)
 - Key stage 1 – Category B (Grades 1,2, and 3)
 - Key stage 2 – Category C (Grades 4,5, and 6)
 - Key stage 3 – Category D (Grade 7 and 8)
 - Key stage 4 – Category E (Grade 9,10)
 - Special needs – Category F (SEN)
 - Individual – Category G (All)
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7. Number of Projects

Category	Grade / Number of projects	Field of the project	No. of students
Category A - (foundation)	LKG (2 projects)	All Science	6-10
	UKG (2 projects)	All Science	
	Grade 1 (4 projects)	All Science	
Category B - (key stage 1)	Grade 2 (3 projects)	All Science	6-10
	Grade 3 (3 projects)	All Science	
	Grade 4 (3 projects)	All Science	
Category C - (key stage 2)	Grade 5 (3 projects)	All Science	6-10
	Grade 6 (3 projects)	All Science	
Category D - (key stage 3)	Grade 7 (3 projects)	2 Science , 1 Business	5-10
	Grade 8 (2 projects)	1 Science , 1 Business	
Category E - (key stage 4)	Grade 9 (x projects)	2 Science, 1 Business (Boys Vs Girls), 1 btech	maximum 5-10
	Grade 10 (x projects)	2 Science, 2 Business, 1 btech	maximum 5-10
Category F - SEN	To their interest	All Science	any
Category G - Individual	Open to interested students	Category A-C (Science) Category D & E (Science & Business)	Variable

- *Note: Except for category G, all other categories are for groups.*

8. Individual Projects

- A student can only participate in One Category. (Either group or individual).
 - For individual projects, it is the student's responsibility to prepare the proposal, the final project, and the necessary materials for the fair.
 - Teacher guidance will not be provided for this category.
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9. Types of Projects

Science Projects

1. Investigative / Experimental Projects

- Students test a hypothesis through experiments, collect data, and analyze results.
- Focus on the *scientific method*: problem, hypothesis, experiment, results, conclusion.
- Example: Testing how different types of soil affect plant growth; measuring the efficiency of solar panels at different angles.

2. Model / Demonstration Projects

- Building a working or static model to explain a concept or process.
- More about illustrating scientific principles rather than conducting full experiments.
- Example: Model of a volcano eruption, hydraulic lift system, or DNA double helix.

3. Research-Based Projects

- Focus on gathering, organizing, and analyzing information (surveys, case studies, secondary research).
- Emphasizes *data interpretation and presentation*.
- Example: Surveying students' sleep patterns and analyzing effects on academic performance.

4. Prototype / Innovation Projects

- Creating an original design, invention, or technology-based solution.
 - Emphasis on creativity and application to solve a problem.
 - Example: Water purification device, low-cost prosthetic hand, smart irrigation system.
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Business Projects

1. Entrepreneurship Projects

- Developing a new business idea, product, or service.
- Includes creating a business plan with goals, target audience, cost structure, and revenue model.
- Example: An eco-friendly packaging company, an online tutoring platform, and a healthy snacks brand.

2. Marketing & Advertising Projects

- Designing campaigns or branding strategies for products/services.
- Focus on creativity, communication, and customer engagement.
- Example: Advertising campaign for a school-based business, social media strategy for a new app.

3. Financial Literacy & Planning Projects

- Teaching or demonstrating financial concepts such as saving, investing, budgeting, or micro-financing.
- Example: Creating a simple investment game for students; a budget management plan for teenagers.

4. Sustainable Business Projects

- Businesses that solve environmental or social challenges.
- Highlights sustainability, ethics, and long-term impact.
- Example: A recycling-based small business, a fair-trade product store, and a solar-powered café.

5. Social Enterprise Projects

- Businesses are designed to help communities or address social issues.
- Example: A tutoring service for underprivileged children, a local women's craft business.

6. Hospitality & Tourism Projects

- Innovative ideas related to food, travel, or service industries.
 - Example: Travel package promoting local culture, new restaurant concept, and event management service.
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10. Project Fields

Science Projects

1. **Environmental Science** – renewable energy, waste management, climate change, water/air quality testing.
 2. **Physics** – electricity and magnetism, mechanics, optics, sound waves, innovative machines.
 3. **Chemistry** – safe chemical reactions, eco-friendly products, water purification, food chemistry.
 4. **Biology** – human health, plant growth experiments, microbiology, genetics, and ecosystems.
 5. **Technology & Robotics** – coding-based projects, automation, smart devices, robotics applications.
 6. **Earth & Space Science** – geology, astronomy, weather prediction models, and natural disaster preparedness.
 7. **Health Science** – nutrition, exercise science, hygiene, disease prevention methods.
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Business Projects

1. **Marketing & Advertising** – promotional campaigns, branding strategies, digital/social media marketing.
 2. **Entrepreneurship** – developing innovative products or services, start-up business models, and cost analysis.
 3. **Financial Literacy** – budgeting, saving, investments, personal finance education.
 4. **Sustainable Business** – eco-friendly packaging, recycling-based businesses, fair trade initiatives.
 5. **Technology-Based Business** – mobile apps, e-commerce ideas, digital service platforms.
 6. **Social Enterprise** – community-based business solutions, addressing local or global social issues.
 7. **Hospitality & Tourism Innovation** – travel packages, food business ideas, event management.
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Hospitality projects

1. Food & Beverage Innovation

- Developing new recipes, healthy food alternatives, or unique menu concepts.
- Example: A “zero-waste smoothie bar” or culturally inspired fusion dishes.

2. Customer Service & Guest Experience

- Projects that improve service quality, guest satisfaction, or staff training in hotels/restaurants.
- Example: A guest feedback app or interactive staff training module.

3. Sustainable Hospitality Practices

- Eco-friendly and ethical solutions in tourism, hotels, or food services.
- Example: A plastic-free café model or energy-efficient hotel operations.

4. Event & Tourism Management

- Planning creative events or designing innovative tourism packages.
 - Example: A cultural food festival or an eco-tourism travel plan.
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11. Rules and Regulations

1. All projects must be original and student-made.
 2. Maximum project size: 1m (W) × 1m (D) × 1.2m (H).
 3. Use of hazardous materials, open flames, or live animals is strictly prohibited.
 4. Projects must be completed by the submission date.
 5. Each group must maintain a project journal/logbook.
 6. Students must be present during the evaluation.
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12. Teacher Guidance

- **Science Projects**

- Teachers will provide conceptual guidance by helping students understand scientific principles, refine hypotheses, and check experiment designs for accuracy and safety.
- Students are responsible for carrying out experiments, collecting data, and interpreting results.
- Teachers may review logbooks and give feedback, but must avoid doing the work for students.

- **Business Projects**

- Teachers will provide strategic guidance by helping students structure business ideas, understand financial concepts, and frame marketing or sustainability strategies.
- Students are responsible for developing their own business plans, product prototypes, and presentations.
- Teachers may suggest resources and tools, but must allow students to independently make decisions and take ownership of their project.

- **Overall Role of Teachers**

- Act as mentors, facilitators, and safety supervisors rather than direct contributors.
 - Ensure all projects maintain originality, feasibility, and ethical standards.
 - Encourage creativity, critical thinking, and teamwork throughout the process.
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13. Safety Procedure

- All electrical connections must be insulated and tested.
 - Chemicals used must be approved by the teacher-in-charge.
 - Sharp tools or equipment may only be handled under supervision.
 - Fire extinguishers and first aid kits will be available at the venue.
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14. Display Board Specifications

- Board Size: 90 cm (H) × 120 cm (W).
 - Sections to include: Title, Aim, Hypothesis/Business Idea, Materials, Procedure, Results/Findings, Conclusion, Applications.
 - Use clear, large fonts and visuals (pictures, graphs, charts).
 - **Project title (block letters in size 80)**
 - **Main headings (Block letters in size 60)**
 - **Sub-headings (Bold and underline. Size 50)**
 - **Content (Size 45)**
 - All the writings should be in either **Times New Roman or Arial font.**
 - Line spacing should be 1.5 in the content. Double spacing between paragraphs.
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15. Science Projects

- Must highlight problem-solving through experiments or innovations.
 - Should include hypothesis, method, results, and conclusion.
 - Example: Renewable energy model, water purification system, robotics.
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16. Business Projects

- Should focus on innovative, sustainable, and practical business ideas.
 - Must include a business plan: product/service, target market, cost analysis, and profitability.
 - Example: Eco-friendly packaging, small-scale food products, tech-based services.
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17. Display Board Colour Code

- FS - KS2 - Yellow background boards.
 - Science Projects: Blue background boards.
 - Business Projects: Green background boards.
 - Hospitality Projects: Red background boards
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18. Prizes and Awards

- Best 3 in each keystage (FS - KS2) - Junior category
 - Best 3 Science & Business projects in Key Stage 3 & 4 - Senior category
 - Most Innovative Project
 - Best Presentation Award
 - **Best Sustainable Solution Award** – for projects that strongly emphasize eco-friendliness, conservation, or long-term environmental/social impact.
 - **Best Emerging Entrepreneur Award** – for students who demonstrate outstanding entrepreneurial thinking, creativity, and a promising business idea.
 - **People's Choice Award (Science; junior and senior, Business & Hospitality)** – chosen by visitors (teachers, parents, students) to recognize the most popular and engaging project.
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19. Timeline

Activity	Date (2025)	Suggestions / Details
Sharing the guidelines & forms.	16 Sept	Class teachers via mail.
Final proposal submission	28 September - 9 October 2025	The proposal will be thoroughly checked by the technical committee. If any amendments are required, the mentor teacher would be notified within 5 days of proposal submission.
Project approval & mentor assignment.	12-16 October 2025	Completing soft copy
Research, construction, and documentation.	12-23 October 2025	Students can start working on the project and complete any research, investigation, and documentation by 23rd October.
Safety check & project completion. Rehearsal (Class level)	26 - 28 October 2025	The mentor teacher will do a safety check for relevant projects and ensure that students complete the projects by 28th October. Additionally, Mentor teachers shall conduct rehearsals before project set-up to ensure students are well prepared.
Project Set-up and Displaying	28-29 Oct	Grade 1-6 (28 Oct), KS3 & KS4 (29 Oct)
Judging and Evaluation	30th Oct	In the school hall (13:00 - 15:30)
Open to the School Community	30 Oct - 1 Nov	Mentor teachers and students are expected to welcome
Cleaning	1 November	It is the responsibility of students and mentor teachers to clean up the project.

20. Technical Committee

- Chairperson: Head of Science Department.
- Members: Business Studies lead teacher, ICT coordinator, and selected subject teachers.
- Responsibilities: Approving projects, ensuring safety, organizing logistics, evaluation process.

Science	Business
Nilna Mohamed	Asma Mohamed
Aishath Shahma	Emmanuel Geoge
Julie Joseph	Pramod Raj
Mariyam Ashfa Abdulla	Maeesha Ibrahim
Rashma Mohamed	Jinesh Kara
Arun Vince	Shibin Mathew
Shizna Mahmood	Mariyam Waleed
Aishath Joona Zareer	

Evaluation Rubric (Foundation Stage - Grade 6)

Criteria	4 Points (Excellent)	3 Points (Good)	2 Points (Developing)	1 Point (Needs Improvement)
Scientific Inquiry	Demonstrates a clear, original scientific question with a well-developed hypothesis and a precise research method	Develops a logical scientific question with a clear hypothesis and mostly appropriate research method	Shows a basic scientific question with a limited hypothesis and a somewhat unclear research approach	Lacks a clear scientific question or hypothesis; research method is vague or poorly conceived
Experimental Design	Meticulously planned experiment with precise measurements, multiple trials, and comprehensive data collection	Carefully planned experiment with consistent measurements and adequate data collection	The experiment shows some planning, but has inconsistent measurements or limited data collection	The experiment lacks proper planning, and measurements are inaccurate or insufficient
Data Presentation	Creates sophisticated, colourful graphs and charts that clearly communicate results with accurate labelling	Produces clear graphs and charts with mostly accurate data representation	Generates basic graphs with some errors in data representation	Presents confusing or incomplete data visualisation
Conclusion & Analysis	Provides in-depth analysis connecting results to the original hypothesis with sophisticated scientific reasoning	Offers a clear explanation of results with a reasonable scientific interpretation	Provides a basic conclusion with limited scientific reasoning	The conclusion is unclear or does not relate to the original hypothesis
Project Display	Exceptionally organised display with neat, creative presentation and clear, large text explaining all project elements	Well-organised display with clear information and attractive layout	Basic display with some information gaps or a messy presentation	Disorganised display with minimal information and poor visual appeal

Evaluation Rubric (KS3 - KS4)

Criteria (Weight)	Excellent (5 points)	Good (4 points)	Satisfactory (3 points)	Needs Improvement (2 points)	Poor (1 point)
Originality & Creativity (10%)	Highly original idea or innovative solution (new experiment, product, service, or hospitality concept).	Some originality; the idea shows creativity with minor influence from existing concepts.	Limited creativity; the idea is somewhat predictable.	Minimal creativity; mostly a reused or generic idea.	No originality; directly copied.
Content Accuracy / Feasibility (20%)	Science: Accurate methodology & valid results. Business: Realistic plan & strategy. Hospitality: Practical, feasible concept.	Mostly accurate/feasible with minor gaps.	Adequate understanding ; some errors.	Weak understanding ; many inaccuracies.	Very poor accuracy or feasibility.
Practical Application & Relevance (20%)	Strong real-world application; highly relevant to community, industry, or environment.	Clear usefulness and relevance.	Some relevance, but limited in real-world application.	Weak real-world connection.	No practical application.
Presentation & Communication (20%)	Very clear, engaging presentation with excellent delivery and demonstrations.	Clear, confident presentation with minor gaps.	Somewhat clear; required prompts.	Weak presentation; unclear explanations.	Very poor or no communication.
Display Board Presentation (Layout) (10%)	Exceptionally neat, creative, colorful, and well-organized; easy to read.	Neat and well-organized with good readability.	Adequate but could be improved for clarity/appeal.	Messy or hard to follow.	No display board prepared.

Teamwork & Documentation (10%)	Excellent collaboration; well-maintained logbook/business plan/portfolio.	Good teamwork; documentation mostly complete.	Adequate teamwork; partial documentation.	Weak teamwork; minimal documentation.	No teamwork; no documentation.
Safety, Ethics & Professionalism (10%)	Excellent adherence to safety, ethical guidelines, and professional standards.	Minor concerns, but generally professional.	Some concerns are overlooked but manageable.	Weak attention to safety/ethics.	Unsafe, unethical, or unprofessional.