PRIMETIME

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Sci-TECH FAIR

HANDBOOK

THEME

Fighting COVID-19 with Innovative Tech Solutions

INTRODUCTION
ABOUT THE SCI-TECH FAIR

In 2017, Primetime Limited, producers of the National Science & Maths Quiz (NSMQ) introduced the *Sci-Tech Fair* as a way of expanding the quiz and adding more value to the experience of participants on the programme. The two-day innovative and practical extension of the NSMQ provided an opportunity for students, both in the basic and second cycle institutions, as well as Tech Start-ups, to apply their ingenuity, knowledge and understanding of science concepts studied in the classroom to produce solutions, or inventions that could solve problems in Ghana. In 2018, the Fair was extended to the regional level to give room for more participation.

Since its inception, the Fair has been an exhibition only, where projects are pre-built and put on display for public viewing. However, the 2021 edition of the Fair would be two-pronged: an exhibition, as well as a competition, which would be termed the **Sci-Tech Innovation Challenge**. Furthermore, the 2021 edition would be an event on its own, detached from the NSMQ.

The Sci-Tech Innovation Challenge has been introduced to make the two-day event more challenging, as competitions have been known to bring out the best in people. A core objective of the Challenge is to give the students extra mileage to explore their creativity and challenge themselves in the practical aspect of science and technology, as the students would be required to build the projects from scratch themselves.

PARTICIPATION IN THE SCI-TECH INNOVATION CHALLENGE

The maiden edition of the Sci-Tech Innovation Challenge is slated for June 29 & 30, 2021, on the theme, "*Fighting COVID-19 with Innovative Tech Solutions*." All participants are required to build projects that are in line with the theme. Possible areas that could be considered are:

Robotics and automatic control

- CovidBots (Covid-19 activity-related robots)
- Automated sanitizing stations

Technical Engineering

- Test kits
- Personal Protective Equipment (PPEs)
- Simple open-source ventilators
- Innovative ways of studying/schooling from home

Software Engineering

- User-friendly Covid-19 apps (Contact tracing app, Information app, Self-diagnostic app…)
- Covid-19 related games

NB: Applicants are advised to propose easy-to-build projects that could be assembled within a space of nine hours.

SELECTION PROCESS

The selection process of the Sci-Tech Innovation Challenge is merit-based, and applicants are encouraged to give a vivid and true description of the projects they intend entering into the Challenge. After the deadline, all applications would be reviewed by a board of judges, after which **ten (10)** applicants would be selected from the entries to participate in the Challenge.

ELIGIBILITY CRITERIA

The Sci-Tech Innovation Challenge is open to all second cycle students in Ghana who meet the following criteria:

1. Duly registered as students of a given school

2. Must not have written WASSCE, or final examination prior to the year of competition.

TEAM COMPOSITION

1. Each team must comprise **three (3)** students only – Two competitors and a substitute

2. Each team must have **one (1)** team leader, who must be a teacher of the school.

ENTRY REQUIREMENTS

Applicants are strongly advised to read the following entry requirements thoroughly, as well as the rules of the Challenge before starting the application process. All entries must be in English.

1. Applicants must submit a proposal detailing what the project is about. Proposals must be clear and concise, and must include the following:
    a. Objectives
    b. Methodology

Proposal must be submitted in a word document, or PDF, font size 12 (Times New Roman), and must be double-spaced.

2. Applicants must provide a list of all the specific tools and raw materials that would be needed for the project. For instance, if applicants would need a screw driver, specific details would be needed, for instance, "two screw drivers – a torx and a flat." All raw materials and tools must be items that could be sourced locally.

3. An estimated budget for all raw materials and tools that would be needed for the project. Budget must not exceed GH₵3,500.00.

4. Applicants must provide a three-minute video recording of what the project is about. This may be in the form of a pitch, and it must be done by the students; either one of the three, or all the three students may do it. The variation in video quality of individual applicants would not affect the selection process, however, videos must be of a quality that would not affect visuals. In a situation where applicants cannot send a video, applicants are allowed to present the proposal only, but with more details than a regular proposal and with sketches of the intended project.

5. Full names of the students.

6. Full name of the team leader.

NB: **Only one (1) project can be entered.**

SCHEDULE AND DEADLINES FOR THE CHALLENGE

Activity	Date/Deadline
Applications open	Monday, March 29, 2021
Applications close	Thursday, May 16, 2021
Notification on status of application	Monday, June 14, 2021

Application is free. Click on the link below to fill the application form for the Challenge:

http://bit.ly/2021scitechprimetime

FORMAT OF THE SCI-TECH INNOVATION CHALLENGE

The Sci-Tech Innovation Challenge will span two days, and competitors would be required to build and complete their projects within the stipulated time indicated in the Rules of the Challenge. Primetime would purchase all raw materials and tools for all competitors per their specifications, and the raw materials and tools would be made available for inspection a day prior to the Challenge.

JUDGING CRITERIA

The finished projects would be assessed based on the following benchmarks:

- Creativity/Innovation - 30 %
- Technical Complexity - 10%
- Sustainability - 20 %
- Team work - 10%
- Procedure - 15 %
- Presentation - 15 %

PRIZES

1. Winners

- Students and team leader: **GH₵20,000.00**
- School: **GH₵10,000.00** worth of science equipment

In addition, the team would be presented with a plaque, and each of the team members would receive a laptop.

1. First-runners up

- Students and team leader: **GH₵17,000.00**
- School: **GH₵8,000.00** worth of science equipment

The team would be presented with a plaque, and each of the team members would receive a laptop.

2. *Second-runners up*

- Students and team leader: **GH₵15,000.00**
- School: **GH₵5000.00** worth of science equipment

The team would also be presented with a plaque, and each of the team members would receive a laptop.

CERTIFICATES AND CONSOLATION PRIZES

Each of the seven (7) remaining participants who do not place would receive a consolation prize of **GH₵5000.00,** which would be shared as follows**:**

Students and team leader: **GH₵4000.00**

School: **GH₵1000.00** worth of science equipment.

All competitors would receive a certificate of participation.

GRANTS & SUPPORT

Apart from the prizes, Primetime would assist some of the teams with outstanding projects to access grant support, to scale their projects from the prototype stage to the development stage.

RULES OF THE CHALLENGE

Team Composition

1. Team must consist only two members during the Challenge. The only time the team leader may come in is when the team is being interviewed about their project.

2. Substitution of team members is not allowed. A team member may be substituted in extreme emergency cases only.

3. Team members presented during the application process must be the ones to represent the school during the Challenge. Primetime must be informed of any replacement two weeks prior to the Challenge.

4. Schools found to have fielded unqualified contestants would be disqualified, and banned from participating in the Challenge for two (2) years.

General Conduct

All participating schools are expected to conduct themselves with utmost decorum. All forms of misbehaviour are prohibited. Among other things:

1. Participants are to begin the challenge from scratch hence, apart from the raw materials and tools, which would be handed over to team members at the beginning of the challenge, no foreign material would be allowed inside the venue. Participants must, therefore, avail themselves to be searched before the Challenge begins, to ensure that no one is entering with a foreign material. After Day One (1), participants would be searched again to ensure they are not moving anything out of the centre.

2. The final ruling of the Challenge is the prerogative of the panel of judges, and cannot be contested by the students, or their team leader. Should the students, or team leader detect foul play by any of the schools during the Challenge, it must be reported immediately. After the declaration of the winner, no reports would be accepted

3. All students must be in protective gear at all times during the Challenge.

4. All participating schools must treat each other with respect. Any form of disrespect, including contemptuous laughter and mocking of other schools, or any form of verbal and non-verbal act that may hinder the progress of participants in any form is prohibited.

5. All participating teams are to take utmost care of the tools and materials handed to them for the Challenge. At the end of each day of the Challenge, participants must check their tools against the checklist to be presented and place all tools and materials in the toolbox, and return them to officers in charge. Note that schools responsible would bear cost of all missing tools.

Content and Rules of the Challenge

1. Schools have a maximum of nine (9) hours within which to finish their projects.

2. There would be two breaks within the competition as outlined below:
   - **a.** **First Break** – One hour (From 12:30pm – 1:30pm) – Lunch break
   - **b.** **Second Break** – Fifteen minutes (From 3:30pm – 3:45pm) – This is to allow the students to have a breather and also meet with their coaches/teachers to give them a rundown on what they have done so far.

3. On the second day of the Challenge, each of the schools would be given a maximum of ten (10) minutes to demonstrate the functionality of their projects

4. All ideas must be original, put together by the team.

5. When applying, only one project must be entered. Multiple entries would not be considered.

PARTICIPATION IN THE EXHIBITION

The 2021 edition of the exhibition is open to **Ten (10)** participants only, and selection to participate would be merit-based; the relevance of the project to society. Below is a breakdown of the number of exhibitors expected from the specified categories:

- Senior High School: **Five (5)** schools – **Three (3)** participants from each school; **two (2)** students and **one (1)** teacher.

- Junior and Basic: **Three (3)** schools – **Three (3)** participants from each school; **two (2)** students and **one (1)** teacher.

- Tech-start-ups (*could be in or out of school*) – **Two (2)** people.

Projects could be related to the theme "*Fighting COVID-19 with Innovative Tech Solutions*," or outside the theme, but relevant to society. Applicants can enter a maximum of **three (3)** projects only.

NB: In a situation where a school is selected to participate in both the Challenge and the Exhibition, only one teacher must accompany the team of competitors and exhibitors.

ENTRY REQUIREMENTS

1. A proposal of the project(s) that include(s) the following:
    - Objectives
    - Methodology
    - Apparatus

All write-ups must be proofread and edited to ensure clarity

2. **Two (2)** high quality images with different dimensions of the project, or of each of the projects.

PRIZES AND CERTIFICATES

At the end of the two-day event, all the participants of the Fair would be presented with certificates of participation. Among the ten exhibitors, two would be rewarded for presenting outstanding projects. Each of the two winners would receive **GH₵500.00,** as well as plaques.

The Award categories are:

- Most Innovative Project
- Best Young Innovator (Innovator (s) who is/are 15 years old, or younger

SCHEDULE AND DEADLINES FOR THE EXHIBITION

Activity	**Date/Deadline**
Applications open	Monday, March 29, 2021
Applications close	Friday, May 28, 2021
Notification on status of application	Tuesday, June 15, 2021

NB: Projects must be 70 percent complete at the time of submission of application.

All applications must be sent to haziz@primetime.com.gh with jesaighoe@primetime.com.gh in copy in the following format:

1. Word Document, Times New Roman, Font Size 12
2. Images of projects should be added as attachments

ALL THE BEST!

PRIMETIME

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