

**2025 NATIONAL FESTIVAL**

**OF TALENTS**

**Implementing Guidelines on**

**STEMazing**

The categories, components, number of learner-participants and teacher-coaches, and time allotment for STEMazing per region are provided as follows:

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| **Category** | **Mode of Delivery** | **No. of Learner-Participant** | **No. of Teacher-Coach** | **Time Allotment** |
| **NumbeRace** | in-person | 3 | 1 | 1.75 hrs |
| **AGHAMazing** | in-person | 2-3 members | 1 | 3 hours writing, 1 minute presentation and 5 minutes Q and A |
| **Total** |  | **8** | **2** |  |

**STEMazing**

(A Showcase of Science, Technological, and Mathematical Outputs)

**NumbeRace!**

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| **COMPONENT AREA** | MATHEMATICS AND PROBLEM SOLVING | |
| **KEY STAGE** | Key Stage Two (2) Grades 4 to 6 | |
| **EVENT TITLE** | NumberTrek: Navigate, Investigate, Calculate! | |
| **NO. OF PARTICIPANT/S** | 3 students per team (one from each grade level 4-6) | |
| **TIME ALLOTMENT** | 1.75 hours total  Elimination round: 45 minutes  Final round: 60 minutes | |
| **PERFORMANCE STANDARD** | The learners:   * demonstrate proficiency in applying mathematical concepts to solve authentic real-world challenges; * exhibit analytical and strategic thinking skills in approaching complex mathematical problems; * manifest effective communication and collaborative skills in mathematical discourse and team problem-solving; and * show mastery in integrating concepts across various mathematical domains (Number & Number Sense, Measurement and Geometry, Data and Probability) in practical applications | |
| **21ST CENTURY SKILL/S** | Critical Thinking and Problem Solving  Collaboration and Communication  Digital Literacy | |
| **CREATIVE INDUSTRIES DOMAIN** | * Digital Interactive Media Domain (through educational gaming and interactive mathematical applications) * Creative Services Domain (through creative research and development, cultural and recreational services) * Design Domain (through the creation of solutions that address mathematical and spatial problems)   Audiovisual Media Domain (through educational content development) | |
| **DESCRIPTION** | **NumbeRace** is a two-phase mathematical adventure competition designed for Grades 4-6 students that combines physical exploration, mathematical investigation, and problem-solving in real-world contexts. | |
| **TECHNICAL SPECIFICATIONS** | | |
| 1. **MATERIALS, TOOLS AND EQUIPMENT** | To be provided by the participants:   * Basic calculator * Measuring tools (ruler, tape measure) * Writing materials * Digital device for QR codes (if allowed by organizers) * Safety equipment (as specified in orientation) | To be provided by the event organizers:   * Team identification badges * Station markers and QR code printouts * Scoring sheets and evaluation forms * Investigation tools and materials * Data collection forms * Emergency and first aid equipment * Digital tracking system * Maps and route guides |
| 1. **VENUE** | School grounds or designated competition area with:   * Multiple checkpoint stations * Investigation areas * Presentation space * Rest areas and first aid stations * Emergency assembly points | |
| **CRITERIA FOR JUDGING** | Accuracy (60%) and speed (40%**)** | |
| **EVENT RULES AND MECHANICS** | | |
| A. **Pre-Competition Requirements**   1. Teams must complete registration two (2) weeks before the event   Registration Process (2 Weeks Before)   * Submission of Regional Team Registration Forms including the following:   + Region number and name   + Division/Schools Division Office   + Name of Regional Mathematics Supervisor   + Name of Division Mathematics Supervisor * Team Composition Details:   + Official team name representing the region   + Grade levels of members (one each from Grades 4-6)   + Certified true copy of school records proving grade levels   + Regional team coach/adviser information with designation * Regional Endorsement Requirements:   + Endorsement letter from Regional Director   + Certification from Schools Division Superintendent   + Regional screening competition results   + Proof of winning at division and regional levels  1. Mandatory orientation session 1 week before the competition proper    2-hour mandatory session covering:   * Competition mechanics * Safety protocols * Equipment usage * Scoring system * Emergency procedures    Hands-on practice activities   Q&A portion   Equipment familiarization   1. Practice Session (3 Days Before the competition proper)  * Mini challenges * Equipment testing * Route familiarization * Team strategy development  1. Equipment and Documentation Verification  * Pre-Event Documentation Checklist:   + Team Registration Form   + Individual Participant Forms   + Medical Certificates   + Consent Forms   + Equipment Checklist * Equipment Inspection:   + Basic calculator   + Measuring tools   + Writing materials   + Digital devices (if allowed)   + Safety equipment   B. **Competition Structure**  **•** Elimination Round  o Individuals and teams navigate through multiple stations  o Solve challenges at each station:  - Station 1: Grade 4 representative  - Station 2: Grade 5 representative  - Station 3: Grade 6 representative  - Stations 4 and 5: Team  o Challenges from stations 1 to 3 should be grade-level specific.  o Grade-level representatives may ask to be replaced when they cannot answer the challenge assigned to the team.  o Additional 30 seconds for the first replacement and 60 seconds for the second replacement.  o They cannot proceed to the next station unless correct answers are given and confirmed by their team manager.  o Half of the number of teams with the lowest scores will be eliminated  • Final Round  o Teams will go through challenges from Stations 6 to 10.  o Apply mathematical concepts and analyze real-world data  o Develop mathematical solutions and solve problems  o Present solutions and findings  • The highest score for each station is 50 points, with a standard deduction of 3 points for the next player/team who will finish successfully.  C. **Safety and Compliance**   **General Safety Protocols**   * Teams must stay within designated safe zones * Mandatory use of specified safety equipment * Access to water stations and rest areas * Compliance with station-specific safety guidelines    **Supervision and Support**   * Station Masters present at each checkpoint * Medical team on standby throughout the competition * Safety Officer overseeing all activities * Technical support team for digital components    **Emergency Response Procedures**   * Medical emergency response protocol * Weather emergency contingency plans * Technical failure backup systems * Lost team search and recovery procedure   ** Incident Management**   * Immediate reporting to Safety Officer * Documentation through incident report forms * Implementation of appropriate response measures * Post-incident analysis and documentation   D. **Scoring and Awards**   **Scoring System Implementation**   * Digital real-time scoring through station verification * Individual judge scoring followed by panel consensus * Final verification by Head Judge and Technical Committee    **Award Categories**   * Main Awards:   + Overall Champion (Trophy + Certificates)   + First Runner-up (Medals + Certificates)   + Second Runner-up (Medals + Certificates) * Special Awards:   + Best Navigation Team   + Outstanding Investigation   + Excellence in Calculation   + Innovation Award   + Team Spirit Award * Recognition:   + Certificates of participation for all competing students   + Certificates of appreciation for all coaches   E. **Documentation Requirements**   1. Team registration forms 2. Medical and consent forms 3. Competition worksheets 4. Final presentation materials | | |

**STEMazing**

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**AGHAMazing**

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| **COMPONENT AREA** | SCIENCE, TECHNOLOGY, ENGINEERING, AND MATHEMATICS | |
| **KEY STAGE** | Key Stage 3 (Grades 7 to 10) and Key Stage 4 (Grades 11 to 12) | |
| **EVENT TITLE** | **AGHAMazing** | |
| **NO. OF PARTICIPANT/S** | A team shall be composed of two or three learner-participants per region | |
| **TIME ALLOTMENT** | 3 Hours (Creation of Outputs), 1 Minute Presentation and 5 Minutes of Question and Answer | |
| **PERFORMANCE STANDARD** | Obtain scientific and technological information from varied sources about global issues that have impact on the country. Acquire scientific attitudes that will allow them to innovate and/or create products useful to the community or country. Process information to get relevant data for a problem at hand | |
| **21ST CENTURY SKILL/S** | Critical thinking, Communication skills, Creativity, Problem solving, Collaboration. Information and digital literacy and Technology and Engineering skills. | |
| **CREATIVE INDUSTRIES DOMAIN** | Technology and Engineering | |
| **DESCRIPTION** | **AGHAMazing** is an NFOT event category of STEMazing which involves on-the-spot development of research proposal that allows learner-participants to apply science and mathematics thinking skills to solve problems that have local, national, and global impact. It allows them to become problem solvers by addressing social, scientific, cultural, and environmental issues through the application of STEM and 21st century skills.  In this activity, participants will be presenting oral and written proposed solution to a given scenario. | |
| **TECHNICAL SPECIFICATIONS** | | |
| 1. **MATERIALS, TOOLS AND EQUIPMENT** | To be provided by the participants:   * Computer/ Laptop/ * Notebook/ books and other printed resources, pocket Wi-Fi | To be provided by the event organizers:   * Timer * 2 multimedia projectors, * Printer * fast internet connection, * Sound System * Adequate electrical outlets, extension cords * 2 reams bond paper A4 |
| 1. **VENUE** | Hall with stage, three holding rooms | |
| **CRITERIA FOR JUDGING** | |  |  | | --- | --- | | **Criteria** | **Percentage** | | **Written Proposal** | **50%** | | Content/Organization/Thematic Relevance |  | | Content | 25% | | Organization | 10% | | Feasibility of the proposed solution  (Based on scientific, technological, and other valid assumptions, Feasibility of the proposed solution) | 15% | | Relevance of data used | **15%** | | **Oral Presentation** |  | | Discussion/Arguments/Delivery  (Based on scientific, technological, and other valid assumptions, feasibility of the proposed solution) | **20%** | | Ability to answer the questions | **15%** | | **Total** | **100%** | | |
| **EVENT RULES AND MECHANICS** | | |
| General Guidelines   1. The competition shall consist of on-the-spot proposal writing and One-Minute Presentation. Each team which is composed of 2-3 student members in which the 3 members could all be coming from senior high school, or could all come from junior high school, or combination shall develop and present their proposal to the panel of judges of their solution about a real-world problem/scenario of local or global importance. The situation concerning the problem should be given on-site during the competition. 2. The participants are given 3 hours to conceptualize and prepare the written description of their proposed solution. 3. All entries submitted shall not bear any markings that identify their regions. 4. The participants may use the internet and other printed resources in developing their written solution, however, the teams are not allowed to confer with their coaches while the activity is on – going. Any form of communication between the participants and other parties (coach, parents, classmates, teachers, etc.) shall warrant automatic disqualification. 5. The proposed solution shall have the following components:   Title  Summary (100 – 200 Words)  Background and Problem (200 – 300 Words)  *(Describe the challenges and how the proposed solution addresses the problem presented. Scientific Principles and Technology applicable to the resolution of the problem.)*  Beneficiaries  Proposed Solution to the Problem Presented (300 – 500 words)  Methods/Details of the proposed solution including the Cost -Analysis as applicable.  Include illustrations, figures, and charts.  References: May use any format as long as consistency is observed.  *Note:* for every 1 to 10 excess words from the maximum and/or lacking number of words from the minimum number of words shall be given a deduction of 1 point from the total score per judge.   1. The teams shall encode their proposals in word processing software, double-spaced using Bookman Old style font size eleven set in A4 size paper. Margins shall be 1 inch on all sides of the paper. Within 3 hours, the teams shall submit their outputs (electronic copy) to the facilitators. 2. The proposals shall be subjected to plagiarism and AI-generated check. Any proposal which will exceed 20% AI-generated content and exceed 15% similarity index (uncited) shall be deducted 2 points from the total score for every percent in excess for both areas. 3. After the 3-hour proposal development, the members of each team will be separately placed in different waiting areas. They will only meet once they are called to present their proposal in the Presentation Room. 4. The submitted proposals shall be evaluated by the judges before the oral presentation. 5. During the presentation, a timer board shall be shown to the public as well as to the participants. 6. At the end of one minute, a buzzer shall signal that the time for presentation is up, and the participants shall immediately stop presenting. 7. After the presentation, a 5-minute question and answer will be asked by the judges for clarifications. 8. To evaluate the results, each judge shall add the scores. The judge will then ask the NTWG for any deduction point from the entries, after which the entries will be ranked based on their total final scores. The summary of rank results will be consolidated to determine the final ranking. The judges or NTWG will add the ranks of each entry from each judge and get the total rank score. The total rank scores will be set in descending order in which the lowest total rank score will be declared as the winner (Top 1), followed by the team with the next lowest total rank, and so on. In case of ties, the chairman of the Board of Judges with the consent of the other judges shall decide. 9. An NFOT medal and Certificate of Recognition shall be awarded to each participant as National Finalist. 10. The Top 5 shall be awarded as First, Second, Third, Fourth, and Fifth winners. | | |