



Republic of the Philippines
Department of Education
Region X – Northern Mindanao
SCHOOLS DIVISION OF LANAOS DEL NORTE



05 August 2025

DIVISION MEMORANDUM
No. 432 s. 2025

**CONDUCT OF DIVISION FESTIVAL OF TALENTS
STEMAZING NUMBERACE ELIMINATION ROUND**

To: Education Program Supervisors
Public Schools District Supervisors
Coordinating School Principals
District Math Lead School Principals
This Division

1. The field is hereby informed that the **Division Festival of Talents - STEMazing NumbeRace Elimination Round** will be held on **September 4, 2025; 8:30 AM** at **Abaga Central Elementary School, Abaga, Lanao del Norte**.
2. The NumbeRace is a two-phase mathematical adventure competition designed for learners in Grades 4-6 that combines physical exploration, mathematical investigation, and problem-solving in real-world contexts.
3. This competition aims to
 - a. demonstrate learners' proficiency in applying mathematical concepts to solve authentic real-world challenges;
 - b. manifest effective communication and collaborative skills in mathematical discourse and team problem-solving; and
 - c. show mastery in integrating concepts across various mathematical domains.
4. Participants will consist of two learners from Key Stage 2, with one learner per grade level allowed from each district (e.g., a team will be composed of one Grade 4 learner and one Grade 6 learner).
5. The race is divided into two rounds: the Navigation Round, which includes stations 1 through 5, and the Challenging Round, which comprises stations 6 through 10. The time allotted for each round is 75 minutes, totaling 2.5 hours. The team will also choose 3 out of the 5 Math games to perform at the end of the race.
6. Participants are advised to bring a basic Casio calculator (mx-12b), ruler, tape measure, protractor, yarn, clean writing materials, school credentials (SF 10), parent consent forms, medical certificates, umbrella/caps, water, food pack (lunch) and snacks.



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7. At registration, measuring tools and calculators will be inspected, while school credentials and parent consent forms must be submitted at this link: <https://bit.ly/45cgV97>.
8. Station Marshalls/ In-charge are directed to prepare the necessary materials, including a digital clock/ timer and secure the scoresheets from the tabulators.
9. Contestants and coaches are advised to pre-register at this link: <https://bit.ly/3UvmPxr>. The deadline for pre-registration will be on **August 29, 2025**, to allow the Technical Working Group (TWG) time to prepare the contest materials. Strictly NO WALK-IN CONTESTANTS.
10. The host school shall provide venues for the different stations, water stations, rest areas, a sound system, internet access, emergency kits, and a safety officer.
11. Furthermore, the top five teams will advance to the final round, which is scheduled for **October 14, 2025**.
12. The competition structure, technical working group, and sample stations are attached.
13. Meals, travel and other expenses of the contestants, coaches and technical working committees shall be charged to local funds/MOOE subject to the usual accounting and auditing rules and regulations.
14. This memorandum serves as **Travel Authority** for all the participants of this training.
15. Immediate dissemination of and strict compliance with this Memorandum by all concerned is highly enjoined.

EDWIN R. MARIBOJOC EdD, CESO V
Schools Division Superintendent

ATCH.: As stated
Reference: NumeRace Mechanics
To be indicated in the Perpetual Index
under the following subjects

CURRICULUM

NUMBERACE

CONTEST

CID EPS/ lcoe
August 5, 2025



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COMPETITION STRUCTURE

Navigation and Challenging Rounds

1. Each team is composed of two learners from Key Stage 2, one from each grade level within the district. A team, for instance, might consist of a Grade 4 learner and a Grade 6 learner.
2. Upon registration, each team will receive a route map showing the 10 stations and a team number that they must wear throughout the race.
3. Each station is marked with a yellow flag. Boy Scouts will serve as flag bearers (using red and green flags) at the entrance of each station. If the green flag is raised, the team may enter and perform the challenges. If the red flag is raised, the station is occupied, and the team must find an empty station.
4. The teams navigate through multiple stations to solve challenges at each station.
5. A Station Marshall at each station will validate the team's answer. If the answer is incorrect, the teams are allowed to retry until the maximum number of ten attempts is consumed.
6. One of the station marshals will transmit the score and time to the tabulators after the answers were verified using the attached scoring rubrics.
7. The race will begin when the NumbeRace master gives the signal. Teams are free to choose any station to start. Upon completion of the race, they must submit their route map to the tabulators.
8. The maximum time allotted to complete the challenges in the navigation round is 75 minutes.
9. At the end of the competition, the group with the highest cumulative score will be declared the overall champion. In case of a tie, a tie-breaker question will be given.
10. During the elimination round, the contestants are not allowed to bring cell phones.
11. At the end of the race the team will perform at least three of the following Math manipulatives and games. These are the following manipulatives: (a) Tangrams; (b) Jigsaw puzzles for patterns, (c) Domino; (d) tower of Hanoi and (e) Sungka-Math
12. The top five teams in the elimination round will advance to the final round, which is scheduled for October 14, 2025.
13. The winning team during the final round will represent the division at the Regional Festival of Talents - STEMazing NumbeRace

Safety and Compliance

- 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
- Station Masters present at each checkpoint
- Medical team on standby throughout the competition
- Safety Officer overseeing all activities



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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

- **Elimination Round:**

Top five teams will receive medals and certificates

Special Awards:

Excellence in Calculation
Innovation Awards

- **Final Round:**

Main Awards:

- Overall Champion (Medal + Certificate)
- First Runner-up (Medal + Certificate)
- Second Runner-up (Medals + Certificates)
- Third Runner-up (Medals + Certificates)
- Fourth Runner-up (Medals + Certificates)

Special Awards:

- Best Navigation Team
- Outstanding Investigation
- Excellence in Calculation
- Innovation Award
- Team Spirit Award



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Scoring Guide (Stations 1 – 9)

ACCURACY (60%)		SPEED (40%)		Modified scoring
Obtained the correct answer in 1 trial	60	Submitted the correct answer in the shortest time	40	40
Obtained the correct answer in 2 trials	57	<i>The score will depend on the rank of the participants/ team based on the time of submission of correct answers.</i>	38	39
Obtained the correct answer in 3 trials	54		36	38
Obtained the correct answer in 4 trials	51		34	37
Obtained the correct answer in 5 trials	48		32	36
Obtained the correct answer in 6 trials	45		30	35
Obtained the correct answer in 7 trials	42		28	34
Obtained the correct answer in 8 trials	39		26	33
Obtained the correct answer in 9 trials	36		24	32
Obtained the correct answer in 10 trials	33		22	31
				30
				29
				28
				27
Unable to obtain the correct answer in 10 trials		0		0

MODIFIED SCORING FOR THE FOLLOWING STATIONS

(This applies when the team fails to complete the task within the allocated time.)

Scoring Guide for Accuracy in Station 1: Give Me a Number Station 6: Digit Cards

No. of Correct	Score
6/6	60
5/6	57
4/6	51
3/6	45
2/6	39
1/6	33

Scoring Guide for Accuracy in Station 2: Math Crossnumber Puzzle

No. of Correct Entries	Score
50	60
45-49	57
39-44	54
34-38	51
28-33	48
23-27	45
17-22	42
12-16	39
6-11	36
1-5	33
0	0

Scoring Guide for Accuracy in
Station 3: Hand Span
Station 4: Triangular Lot
Station 9: Measure & Makeover

Points Earned	Score
20	60
18-19	57
16-17	54
14-15	51
12-13	48
10-11	45
8-9	42
6-7	39
4-5	36
1-3	33
0	0

Scoring Guide for Accuracy in
Station 7: Paper Tower Challenge

Time in Seconds	Score

Scoring Guide for Accuracy in
Station 10: Emergency Budget Challenge

	Score
Exact amount consume or 100%	- 60
90 -99%	- 57
80 -89%	- 54
70 -79%	- 51
60 -69%	- 48
50 -59%	- 45
40 -49%	- 42
30 -39%	- 39
20 -29%	- 36
10 -19%	- 33
Unable to consume the amount or 0-9%	- 0
Or more than 100%	- 0
Number of errors to be deducted:	
1-3 = 3 points	
4-6 = 6 points	
7-9 = 9 points	

PRESENTATION RUBRIC:*Station 10*

	<i>Excellent (9-10 points)</i>	<i>Good (6-8 points)</i>	<i>Fair (3-5 points)</i>	<i>Needs Improvement (0-2 points)</i>	Score
Delivery (30%)	Holds the attention of the entire audience with the use of direct eye contact, seldom looking at notes	Consistent use of direct eye contact with the audience, but still pauses to check notes	Displays minimal eye contact with the audience, while reading mostly from the notes	Holds no eye contact with audience, as the entire report is read from notes	
Content/ Organization (40%)	Demonstrates full knowledge by presenting details with explanations and elaboration Provides clear purpose and statements, examples and facts, and/or statistics or evidences	At ease with presenting details without much elaboration Provides a somewhat clear purpose and statements, examples and facts, and/or statistics or evidences	Uncomfortable with presenting information and is able to present details but without elaboration Provides weak purpose and statements, examples and facts, and/or statistics or evidences	Does not have a grasp of details during the presentation, cannot elaborate the information presented Provides weak or no support of details in their answers; gives insufficient supporting facts or evidences	
Expression and Audience Connection (30%)	Demonstrates strong enthusiasm about topic during entire presentation Raises audience understanding and awareness of the situation	Shows some enthusiastic feelings about topic Raises audience understanding and awareness of most points	Shows little or mixed feelings about the topic being presented Raises audience understanding and knowledge of some points	Shows no interest in the topic presented Fails to provide understanding of knowledge of	
Total Score & Feedback					

DFOT – STEMazing NumbeRace

Technical Working Group

Committees	Function	Materials Needed	In-charge
Registration	<ul style="list-style-type: none"> ➤ Prepare attendance sheets ➤ Screen SF10, certification from the School Head, parent's consent and medical certificates (Upload in a google drive per district on August 29, 2025) ➤ Prepare the Certificates of Appearance 	<ul style="list-style-type: none"> • Attendance sheet • Official list of contestants • Envelops for SF10, etc • CAs 	Emily G. Mag-alasin, Kalinaw Kalilintad Integrated Peac School Rowell R. Llaca, Lanao del Norte National Comprehensive High School
Tabulators	<ul style="list-style-type: none"> ➤ Develop score sheets for all stations, ensuring both digital and printed formats are available. ➤ Create a consolidated score sheet, also in digital and printed formats. ➤ Implement a live score projection system in the hall for real-time updates. ➤ Ensure the time recorder accurately documents the start and end times for each station or event. ➤ Submit the final and official results with EPS in Math. 	<ul style="list-style-type: none"> • Projector with screen • Printer • Bondpaper • Envelops for score sheets 	Emily G. Mag-alasin, Kalinaw Kalilintad Integrated Peac School Rowell R. Llaca, Lanao del Norte National Comprehensive High School
Awards	<ul style="list-style-type: none"> ➤ Prepare and distribute medals and printed certificates of recognition for winning contestants and their coaches. ➤ Ensure the award categories: ➤ Elimination Round: Top 5 teams (medal + certificate) Special Awards: (certificates) a.) <i>Excellence in Calculation</i>; b.) <i>Innovation Award</i> ➤ Final Round: *Overall champion (medal + certificate) *First runner-up (medal + certificate) *Second runner-up (medal + certificate) *Third runner-up (medal + certificate) *Fourth runner-up (medal + certificate) Special Awards: (certificates) a.) <i>Best Navigation Team</i>; 	<ul style="list-style-type: none"> • Medals • Certificates of recognition • Printer • envelops 	Cheryl Q. Reyes, Lanao del Norte National Comprehensive High School Judith P. Hechanova, Lanao del Norte National Comprehensive High School



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	b.) <i>Outstanding Investigation</i> ; c.) <i>Excellence in Calculation</i> ; d.) <i>Innovation Award</i> ; e.) <i>Team Spirit</i>		
Program	<ul style="list-style-type: none"> ➤ Create a detailed program flow for the opening ceremony and awarding ceremony. ➤ Distribute printed programs and invitations to the SDS, ASDS and CID Chief. 	<ul style="list-style-type: none"> • Bond paper • Flow of the program 	<p>Norjanah Untong, Sultan Palao Ali ES</p> <p>Josephine Ignacio, Maranding CES</p>
Prepare Station Markers/ Flag lets	<ul style="list-style-type: none"> ➤ Design and produce clear signages for all stations, including the clinic, registration area, screening area, and resting areas. ➤ Layout and print tarpaulin for the activity ➤ Design, layout, and print the activity tarpaulin. ➤ Prepare and install control signals in each station: 10 red flags (station is full) and 10 green flags (station is empty). ➤ Prepare and place 10 station markers. ➤ Assign 10 Boy Scouts from Abaga CES to operate the flag control signals. 	<ul style="list-style-type: none"> • 10 red & 10 green flag lets • Tarpaulin in each station • 10 gold flags as station markers • 10 boy scouts • Tarp for clinic, registration, resting areas 	<p>Josephine Cadallo, Patudan ES</p> <p>Susan O. Barba, Abaga Central Elementary School</p> <p>Roldan Mutia, Magpatao ES</p>
Documentation	<ul style="list-style-type: none"> ➤ Capture comprehensive documentation of all activities through photography and videography. ➤ Prepare a detailed completion report summarizing the event. ➤ Keep the team registration forms, SF10, medical and consent forms, competition worksheets and final presentation materials. 	<ul style="list-style-type: none"> • Envelops for the final results • Compilation of pictures 	<p>Lorna V. Barazona, San Manuel ES</p> <p>Emily G. Mag-alasin, Kalinaw Kalilintad Integrated Peac School</p> <p>Rosano Rosacia, Lanao del Norte National Comprehensive High School</p>
Route Map	<ul style="list-style-type: none"> ➤ Design and print 31 copies of the number race map. ➤ Clearly indicate the locations of the 10 stations, registration area, water stations, resting area, and clinic area on the race map. ➤ Enclose each printed race map in a transparent protective envelope. 	<ul style="list-style-type: none"> • Photo paper • 31 transparent envelopes 	<p>Gemvie T. Sayon, Kapatagan National High School</p> <p>Bashier S. Amen, Baloi National High School</p>
Screening	<ul style="list-style-type: none"> ➤ Inspect each team's calculators, measuring tools, and other 	<ul style="list-style-type: none"> • Plastic containers for the digital devices 	<p>Marichu A. Licanda, Liangan National High School</p>

	<p>permitted materials (bond paper, pens, pencils).</p> <ul style="list-style-type: none"> ➤ Verify that each team's cellphones are equipped with a functioning QR code reader <i>(during the final round)</i>. ➤ Prepare and assign unique identification numbers for the two digital devices (cellphones) permitted per team. ➤ Confirm that each team is equipped with umbrellas or caps, and adequate food provisions. 		<p>Newlove N. Econg, Kapatagan National High School</p> <p>Almera B. Mejorada, Lanao Norte Provincial Science and Technology High School</p>
First Aid	<ul style="list-style-type: none"> ➤ Prepare medical kits ➤ Establish medical emergency response protocols for incident management. 	<ul style="list-style-type: none"> • Emergency kit 	Designate nurse

STATION CHALLENGES (Elimination Round)

1. Navigation Round (75 minutes)

Station	Instruction	Materials needed	Time Allotment	Facilitators
1 Give Me a Number	<ol style="list-style-type: none"> The team must use all the given numbers (eg. 5 – 6 numbers) to come up wit the given value, which is (a number be given during the contest). The team can only use the given number once, but the operations may be repeated. Calculator is NOT allowed. <i>Eg. Give me 220 and the given numbers are 20, 3, 15, 5 and 75</i> 	<ul style="list-style-type: none"> • 31 written instructions • Scoring/ marking scheme based on the correct answer • Stopwatch/ digital clock 	10 min	<p>Marichu A. Licanda, Liangnan National High School</p> <p>Jefferson O. Cabahug, Magsaysay National High School</p>
2 Math Cross number Puzzle	<ol style="list-style-type: none"> The player must solve the problems to fill in the crossnumber puzzle (mechanics is like a crossword puzzle, instead of word, use numbers) Each item will correspond to either an Across or Down number in the grid. The player should write the correct answers in the puzzle grid. Calculator is NOT allowed 	<ul style="list-style-type: none"> • 31 Math Crossnumber Puzzles • Score sheets • Scoring scheme 	15 min	<p>Glenn D. Mahinay, Lala National High School</p> <p>Baby Marie F. Apas, Lanao Norte Provincial Science and Technology High School</p>

3 Hand Span	<ol style="list-style-type: none"> 1. The player one at a time will measure the perimeter of a space using his/her hand span. <i>A hand span is a non-standard unit of measurement. It is the distance from the tip of the thumb to the tip of the little finger, when the fingers are spread out as wide as possible.</i> 2. The number of hand spans will be multiplied by the measure of his/her palm in cm. 3. The player who got the correct answer in the shortest time will get the highest score. 4. The station can accommodate one team at a time. <i>(Note: one of the bases for best in calculation award)</i> 	<ul style="list-style-type: none"> • Contest material with instruction • score sheet • stopwatch • scoring scheme 	25 min	John Anthony G. Lomosad , Arsenio Quibranza National High School Elsa A. Monteza , Sergio Cerujales, Sr. National High School
4 Triangular Lot	<ol style="list-style-type: none"> 1. The team will tie the yarn to markers on the trees to form a triangular shape. 2. The team will then calculate the area of the triangle they have formed. 3. The team must strategize how to solve the area using the materials available in their kit. 4. The station can accommodate one team at a time. <i>(Note: one of the bases for best in calculation award)</i> 	<ul style="list-style-type: none"> • Written instruction for the contestants • Score sheet • Stopwatch • Yarn to be used by the team 	15 min	Cherry Joy V. Ebo , Lanao del Norte National Comprehensive High School Jamalie C. Lomantong , Salvador National High School
5 Number Ninja	<ol style="list-style-type: none"> 1. Five number sentences are written on the steps. 2. Each team must solve the number sentences mentally. 2. The players must step on the number sentence with the least to greatest answer. 3. If there is any number touched out of sequence, a penalty time is added. (+10 secs). 4. The players may assist their teammates when moving from one step to the next step. 5. The timer begins as soon as the first-person steps in and stops when the last person crosses over the last step. 6. Each team must solve the number sentences mentally. 6. The station can accommodate two teams at a time. <i>(Topics: PEMDAS, Fraction, Percent, Decimal)</i> 	<ul style="list-style-type: none"> • Written instruction for the contestants • number of number sentences in tarp/Manila paper • score sheet • stopwatch 	10 min	Bashier S. Amen , Baloi National High School Gemvie T. Sayon , Kapatagan National High School

2. Challenging Round (75 minutes)

Station	Instruction	Materials needed	Time Allotment	Facilitators
6 Digit Cards	<ol style="list-style-type: none"> Players will be given a random 4-digit number. They will answer a set the questions (minimum of 5 questions) using the numbers provided. <i>For example:</i> Given number: 1,2,3,4 (written in separate cards) Write the largest number: _____ <i>Possible answer: 4,321</i> Write the largest prime number: _____ <i>Possible answer: 1,231</i> Calculator is NOT allowed. The station can accommodate two teams at a time. 	<ul style="list-style-type: none"> digit cards Written instruction for the contestants score sheet scoring scheme stopwatch 	10 min	Dante M. Alboroto , Lala Proper Integrated School Almera B. Mejerada , Lanao Norte Provincial Science and Technology High School
7 Paper Tower Challenge	<ol style="list-style-type: none"> The players must build the tallest and sturdy paper tower using only the given materials. The tower must be free-standing (not taped to the floor or supported). Only the materials provided may be used. The tower is measured from the base to its highest point. The tower must be able to stand at least 1 minute without collapsing. You cannot touch, modify, or repair the tower during this minute. <i>(Note: Basis for innovation award)</i> 	<ul style="list-style-type: none"> Challenges with written instructions 31 sets of papers in various colors Score sheet Rubrics for scoring 	20 min	Newlove N. Econg , Kapatagan National High School Rico D. Viernes , Kapatagan National High School
8 Math Equalizer	<ol style="list-style-type: none"> In this station, two teams will play against each other within a 10-minute time limit. Players from each team will draw 7-9 tiles from the bag. The first player to go is determined (e.g., by rolling dice). Teams take turns using their tiles, which include numbers and operation symbols, to form horizontal or vertical equations on a grid-like board. Each new equation must connect to a tile already on the board. Points are awarded based on the values of the tiles used and any bonus squares on the board. A team has a maximum of one minute per turn. If a team does not place tiles on the board within one minute, their turn is forfeited. 	<ul style="list-style-type: none"> Math equalizer gameboard with number tiles stopwatch 	10 min	Juan R. Alimasag, Jr. , Linamon National High School Edward A. Bolangis , Atanacia Logronio Integrated School Rosano Rosacia , Lanao del Norte National Comprehensive High School

	<ol style="list-style-type: none"> The game ends when all tiles are used, no more moves can be made, or the time is up. The team with the highest score wins. The station can accommodate four teams at a time. 			
9 Measure and Makeover	<ol style="list-style-type: none"> The team's task is to compute the total cost of tiles needed to cover a designated area. Note that the cost is PhP ____ per tile. <i>(Note: Tile sample is provided)</i> The team will measure the area to be tiled using either yarn or a measuring tape. The station can accommodate one team at a time. <p><i>(Note: one of the bases for best in calculation award)</i></p>	<ul style="list-style-type: none"> Yarn or measuring tape Sample tile Stopwatch Score sheet 	10 min	Cheryl Q. Reyes , Lanao del Norte National Comprehensive High School Ivy P. Sayson , Lala National High School
10 Emergency Budget Challenge	<ol style="list-style-type: none"> Each team will be given an amount of money and will be shown a list of grocery items. If there is a calamity, the team will decide which of the given grocery items they will purchase in order for them to survive for two weeks. The team will be given 3-5 minutes to present and justify their answer in the survival challenge. The judges will evaluate the presentation based on the reasoning and completeness of the details provided during the presentation The station can accommodate one team at a time. 	<ul style="list-style-type: none"> Grocery list stopwatch Printer Score sheet (individual with rubrics or 1page) 	15 min 5 min presentation	Judith P. Hechanova , Lanao del Norte National Comprehensive High School (checker) Rene B. Monteza , Magsaysay National High School (Judge) Jestoni G. Jueves , Bansarvil National High School (Judge) Lorraine C. Olavides-Edrea , EPS in Math (Judge)
Additional Station Math Games	<p>The team will perform at least three of the following Math manipulatives:</p> <p>a.) Tangrams; b.) Tower of Hanoi; c.) Rubic cubes d.) Jigsaw puzzles for patterns; d.) domino; e.) Sungka Math</p>	<ul style="list-style-type: none"> Tangrams Tower of Hanoi Jigsaw Puzzles for patterns Domino Sungka-Math 		Josephine Cadallo , Patudan ES Susan O. Barba , Abaga Central Elementary School Roldan Mutia , Magpatao ES