Republic of the Philippines
Department of Education
REGION IV-A CALABARZON
CITY SCHOOLS DIVISION OF BIÑAN CITY

DEPARTMENT OF EDUCATION
Schools Division of Biñan City
RECORDS SECTION
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DIVISION MEMORANDUM
No. 037 , s. 2025

CONDUCT OF DIVISION STEMazing: NUMBERACE

To: Assistant Schools Division Superintendent
Chief, School Governance and Operations Division
Chief, Curriculum Implementation Division
All Elementary Schoolheads

1. In line with the National Festival of Talents held yearly, and with DepEd Memorandum. Re: Additional Event in STEMazing called NUMBERACE, this Office, through the Curriculum Implementation Division announces the CONDUCT OF DIVISION STEMazing: NUMBERACE, which will be held on February 1, 2024, at Binan City Science and Technology High School.

2. The activity aims to:

a. demonstrate critical thinking and solve complex mathematical problems of the learners:
b. enhance teamwork and communication through collaborative math activities; and
c. determine division representatives to the Regional Festival of talents on February 27, 2025

3 Each school shall send a team of **two learners** from Key Stage 2 (**only one learner per grade level is allowed**, e.g. the team is composed of 1 Grade 4 and Grade 6 learner), accompanied by a teacher coach. The Champion team will join the Regional Festival of Talents.

4. Officers of Math Teachers Association of Binan (MTAB) and Math Coordinators of each school will assist in the conduct of the activity as facilitators.

5. Participants are entitled to service credit as stipulated in DepEd Order No. 53, s. 2003, "Updated Guidelines on Grant Vacation Service Credits to Teachers and /or Compensatory Time Off in lieu of training days that will fall on either holiday or weekend"

6. Attached is the draft of Implementing Guidelines on STEMazing: NUMBERACE and the list of the members of Program Management Team and Technical Working Group.

7. To facilitate the smooth conduct of the activity, meeting with the members of Program Management Team will be held on January 27, 2025, 3:00 pm at the

proposed venue followed by an on-line meeting with the members of TWG which shall be held on January 28, 2025, at 3 pm through MS Teams (meeting link will be sent through the official group chat).

8. Expenses relative to the conduct of this activity shall be charged against the school MOOE for the materials, food, transportation, and other related expenses of the participants and LSB fund for the food of the judges, PMT and Technical Working Group subject to the usual government accounting and auditing rules and regulations.

9. For inquiries and concerns, kindly contact Dr. Violeta M. Umel, Education Program Supervisor in Mathematics at Curriculum Implementation Division (CID) office at 049-547-0105 local 116.

10. Immediate and widest dissemination of this Memorandum is desired.

MANUELA S. TOLENTINO, CESO V
Schools Division Superintendent

Encl:
Reference:

CID/PROPER / VMU / VMU / / 01/24/2025

CONDUCT OF DIVISION STEMAZING:NUMBERACE

ENCLOSURE 1 **PROGRAM MANAGEMENT TEAM**

	MEMBERS	
1	Albert D. Escuvania	Principal,SV5A INHS
2	Delio E. Escaño	Principal,Timbao ES
3	Jonard B. Castillo	Principal, Pedro H. Escueta MES
4	Leoniza L. Bernas	Master Teacher, Binan ES
5	Jimelyn E. Olicia	Master Teacher, SV5 ES
6	Marian M. Bagtas	Master Teacher, Zapote ES
7	Leonides Nadela	Master Teacher II, DJTMES
8	Annalyn M. Flores	Teacher III,OLLES

TECHNICAL WORKING GROUP
(School Math Coordinators)

	MEMBERS	SCHOOL
1	Jomari Cabantog	Binan ES
2	Dominador M. Salinas	Platero ES
3	Cathleen Miguel	Canlalay ES
4	Frederick Ilagan	Dela Paz Main ES
5	Maila Apolonio	Dela Paz West ES
6	Benelyn C. Delos Reyes	Dr. MZ Batista ES
7	Kathleen C Tirados	Malaban Main ES
8	Jean Mae P. Destacamento	Malaban East ES
9	Arlene L. Villanueva	Pagkakaisa ES
10	Ricalyn Javier	Pedro H Escueta MES
11	Reycelyn M. Castrillo	Saint Anthony Integrated School
12	Clarice D. Grajo	San Vicente ES
13	Honey Grace F. Tabilon	Tubigan ES
14	Mary Rose Alayon	Dr. Jose Tamayo MES
15	Jett Heinrich G. Hernandez	San Francisco ES
16	Fe O. Joaquin	Soro-Soro ES
17	Janice J. Mayores	Sto. Tomas ES
18	Grace M. Dayao	Tomas Turralba MES
19	Jenny R. Española	Langkiwa ES
20	Juvilyn Clutario	SV5-A ES
21	Annalyn M.Flores	OLLES
22	Visitacion Ileto	Loma ES
23	Alma Aquino	Timbao ES
24	Jimelyn E. Olicia	SV5 ES (Timbao)
25	Renan Dela Cruz	Mamplasan ES
26	Paulo G. Isabelo	Ganado ES
27	Danisse Pabalan	Zapote ES

Enclosure 2:

STEMazing

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

NumbeRace

COMPONENT AREA	MATHEMATICS AND PROBLEM SOLVING	
KEY STAGE	Key Stage Two (2) Grades 4 to 6	
EVENT TITLE	NumbeRace!	
NO. OF PARTICIPANT/S	2 students per team (choose participants from Key Stage 2; *only one learner per grade level is allowed, e.g. the team is composed of 1 Grade 4 and 1 Grade 6 learner*)	
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 learners that combines physical exploration, mathematical investigation, and problem-solving in real-world contexts.	
TECHNICAL SPECIFICATIONS		
A. MATERIALS, TOOLS AND EQUIPMENT	To be provided by the participants: • Basic calculator • Measuring tools (ruler, tape measure) • Writing materials	To be provided by the event organizers: • Team identification badges • Station markers and QR code printouts • Scoring sheets and evaluation forms

	• Digital device for QR codes (if allowed by organizers) • Safety equipment (as specified in orientation)	• Investigation tools and materials • Data collection forms • Emergency and first aid equipment • Digital tracking system • Maps and route guides
B. 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. Team must register before 8:00 am at the venue (BCSTHS) with complete materials, tools and equipment.

B. **Competition Structure**

- *Elimination Round*
  (This may be done in batches if the space is limited.)
  - Individuals and teams navigate through multiple stations
  - Solve challenges at each station:
    - Station 1: Individual Challenge
    - Station 2: Individual Challenge
    - Stations 3 to 5: Team Challenges

- They cannot proceed to the next station unless correct answers are given and confirmed by their team manager.

- Representatives may ask to be replaced when they cannot answer the challenge assigned to them. There will be an additional 30-second penalty for the replacement.

- Half of the number of teams with the lowest scores will be eliminated.

- *Final Round*
  (This may be done in batches if the space is limited.)
  - Teams will go through team challenges from Stations 6 to 10. There will be no individual challenges in the final round.

  - Apply mathematical concepts and analyze real-world data
  - Develop mathematical solutions and solve problems
  - Present solutions and findings

- The highest possible score for stations 1 to 9 is **50** points, with a standard *deduction* of **3** points for the next player/team who will finish successfully. The highest possible score for station 10 is 30 points following the presentation rubric.

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

SAMPLE CHALLENGES:

Challenge	Instructions
Step by Step *(Individual)*	1. The player will measure the perimeter of an area using his/her foot. 2. The number of steps will be multiplied by the measure of his/her foot in cm. 3. The player who got the correct answer in the shortest time will get the highest score.

Sudoku *(Individual)*	
Tangram *(Individual)*	
Angle Hunt *(Team)*	1. Given ten (10) minutes, the team will look for objects in the surroundings that demonstrate right, acute, and obtuse angles. 2. The team with the highest number of correct answers in the fastest time will get the highest score.
Number Ninja *(Team)*	1. Number sentences are written on the steps. 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.
Game of Fifteen *(Team)*	1. In this station, the teams* will play against each other. *(*2-4 teams)* 2. Each team will be given number cards labeled from 1 to 10. 3. They will play in a 6x6 square. Players take turns to place a number onto the grid. 4. The first team that gets a sum of fifteen (15) in a straight line of three numbers (vertically, horizontally, or diagonally) will get the highest score.
Digit Cards *(Team)*	1. Players will be given a random of 4-digit number. 2. They will answer a set the questions *(minimum of 5 questions)* using the numbers provided. *For example:* **Given number: 1234** Write the largest number: _____ *Possible answer: 4,321* Write the largest prime number: _____ *Possible answer: 1,231* 3. The team who got the correct answers in the fastest time will get the highest score.
Survival Challenge *(Team)*	1. Each team will be given Php 1000 and will be shown a list of grocery items. 2. If there is a calamity, which of the following items will they purchase for them to survive *for two weeks.*
	3. The first team to maximize their money will get the highest score.
Presentation *(Team)*	1. The team will be given 3-5 minutes to present and justify their answer in the survival challenge. 2. The judges will evaluate the presentation based on the reasoning and completeness of the details provided during the presentation.

Enclosure No.___ to DepEd Memorandum No. ___s, 2025

PRESENTATION RUBRIC:

	Excellent *(9-10 points)*	*Good* *(6-8 points)*	*Fair* *(3-5 points)*	*Needs Improvement* *(0-2 points)*	**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 topic	
TOTAL SCORE and FEEDBACK					