Republic of the Philippines
DEPARTMENT OF EDUCATION
Cordillera Administrative Region
SCHOOLS DIVISION OFFICE OF ABRA
Bangued, Abra

DIVISION MEMORANDUM
No. 320, s. 2019

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To : **Public Schools District Supervisors**
Elementary School Heads
Secondary School Heads

From : **GLORIA A. BUYA-AO**
Schools Division Superintendent

Subject : **2019 DIVISION SCIENCE & MATHEMATICS FESTIVAL**

Date : October 1, 2019

1. The Department of Education Schools Division Office of Abra through the Curriculum Implementation Division (CID) in coordination with the District and Secondary Schools Science and Mathematics Coordinators announces the conduct of the 2019 Division Science and Mathematics Festival on October 9-10, 2019 at Marc Ysrael B. Bernos Memonrial National High Schoo, Mudeng Lapaz, Abra.

2. This activity aims to promote Science and Technology, Engineering and Mathematics consciousness among the youth and identify students that will represent the province in the Regional Science and Mathematics Festival. The theme of the festival is "***Science and Mathematics for the People: Innovation for Collective Prosperity***".

3. The following are the contested event during the festival:

Date	Event
Science	a. Search for the Most Outstanding Science Teacher b. On-the-spot Science Competition c. Science Investigatory Project (SIP) d. Robotics e. Innovation f. Science Quiz
Mathematics	g. Mathematics Investigation – Research Based h. On-the-spot Mathematics Investigation i. Mathematics Quiz j. Damath

4. There will be NO REGISTRATION FEE. Foods and snacks of the TWG shall be charged against the Division MOOE while the travel expenses of the participants and TWG shall be charged against school MOOE and /or other sources, subject to the usual accounting and auditing rules and regulations.

5. Guidelines, mechanics and members of Technical Working Group are stated in the enclosure on this memorandum.

6. Immediate and wide dissemination of this memorandum is advised.

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(Division Memorandum No. _____, s. 2019 Enclosure No. 1)

Guidelines and Mechanics for the Different Competitions

A. Science Investigatory Project (SIP)/ Robotics/ Innovation

1. The science research competition is open to **ALL** secondary schools both Junior HS and SHS HS regardless of school type. Below is the classifications and categories.

Physical Science		Life Science	
Individual	Team (2 or 3 members)	Individual	Team (2 o3 members)
Robotics		Innovation	
Individual	Team (2 or 3 members)	Individual	Team (2 o3 members)

2. The science research competition for the ***elementary level*** will be in two categories only; the individual and team categories but no longer classified as physical science or life science.
3. Top five (5) winning projects in the school level will only be competed in the division level in every category.
4. Submission of entries will be on ***October 7, 2019***. The cover page of the write-up should follow the color coding below:

Category/ Classification	Color
Elementary Research	Green
Life Science Research	Blue
Physical Science Research	Red
Robotics	White
Innovation	Yellow

B. Mathematics Investigation (MI)

1. The mathematics investigation is for the ***secondary level only.***
2. The categories and classification of the mathematics investigation is as follows:

Research-based MI		Problem-based MI	
Individual (JHS or SHS student)	Team Category (2-3 members from JHS or SHS)	Individual (JHS or SHS maximum of 2 entries)	Team Category (2-3 members from JHS or SHS maximum of 2 entries)

3. Submission of Research-Based Mathematics Investigation (MI) entries will be on ***October 7, 2019***.
4. Only the first place per classification and category in the Division Level will participate in the 2019 Regional Level competition.

C. Science and Mathematics Quiz

1. The division Science and Mathematics Quiz shall be conducted in a Quiz Show Format wherein all contestants are seated facing the Quiz Master for a given period of time.
2. Participants to these events are the following:

Events	*Participants*
Science Quiz	*First Place winners of Grade 3, 4, 5 and 6 in the (27) Municipal Districts and Grade 7,8,9, 10 and Grade 11 or 12 of all Secondary Schools including IS and Ext. Schools*
Math Quiz	*First Place winners of Grade 3, 4, 5 and 6 in the (27) Municipal Districts and Grade 7,8,9, 10 and Grade 11 or 12 of all Secondary Schools including IS and Ext. Schools*

3. All questions will be stated in English. The type of question, time allotment, scoring are described below:

No. of Questions	*Time limit*	*Score*	*Type of Question*
5- 15-second questions	15 seconds	2 points	Multiple choice *(NO choices for Math)*
5- 30-second questions	30 seconds	3 points	Multiple choice *(NO choices for Math)*
5 – 60-second questions	60 seconds	5 points	No choices
3 - Clincher	60 seconds	5 points	No choices
Do or die	No time limit	First to get the correct answer wins	No choices

4. The quiz master will read the question twice. After the second reading, the quiz master will say "GO" and the time to start writing their answers will begin. The designated timer will say "STOP" after the given time limit and the contestants will raise their answers for checking and recording by the proctors and board of judges. If the proctors cannot determine the validity of the answer, the board of judges will decide on the matter. The decision of the board of judges is FINAL.

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D. DAMATH

Grade Level	*Damath*
Grade 3 or 4	Whole Number
Grade 5 or 6	Positive Fraction
Grade 7	Integers
Grade 8	Signed Fraction
Grade 9	Radical
Grade 10	Polynomials

1. One contestant and one coach per grade level.
2. There shall be ten (10) competing teams in the elementary level coming from the Mother Districts and ten (10) competing teams in the secondary level coming from the Secondary Clusters. Clusters of the secondary schools shall be as follows:

Cluster 1	*Abra HS Main, Abra HS Calot & Sinalang Ext.*
Cluster 2	*MYBBMNHS, Western Abra NHS, Pulot NHS and Lapaz IS*
Cluster 3	*San Quintin NHS, Suyo NHS, San Isidro NHS, Langiden NHS and Peñarubia IS*
Cluster 4	*Northern Abra NHS, Quidaoen NHS, Caganayan NHS, Cayapa NHS and Tineg NHS*
Cluster 5	*Tagodtod NHS, Pangtod NHS, Abas NHS, Baay NHS Main & Lacub Ext., and Mataragan NAS*
Cluster 6	*Pilar Rural HS, Dalit NHS, Bolbolo NHS, Lumaba IS and Tuquib IS*
Cluster 7	*Tiempo NHS, Luzong NHS, Lullono NHS, Dilong NHS and Supo NHS*
Cluster 8	*Manabo NHS, Cristina B. Gonzales MNHS, Boliney NHS, Capitan NHSand Dugong NHS*
Cluster 9	*Gaddani NHS, Rosalio Eduarte NHS and An ana-ao IS*
Cluster 10	*Private Schools*

3. Only the official contestant may raise a protest or clarification and it should be made before the next move will be done. The protest should be directed to the arbiter/timer who is responsible for settling all clarifications which may arise in the course of the competition. The assigned chairman of the board is responsible for settling protest that may arise in the course of the competition.

Rules of DAMATH

1. Set the starting positions of the chips.
2. The two (2) players alternately will take turns in moving a piece, PASS is NOT ALLOWED.
3. Touch move shall be observed in the games. A player who touches a chip is required to move that chip unless it is illegal move.
4. After making a move, a player shall record his/ her move in the score sheet.
5. Only one score sheet will be used by the players in the game.
6. Each player is allowed one (1) minute to move, record, and score.
7. A warning is given by the arbiter to a player if no move is made in a minute which will consequently force the player to move a chip.
8. Continuous violation of rule #7 will be a ground for disqualification after three (3) warnings regardless of the score garnered.
9. All moves should be in the forward direction except when taking a chip or the chip is "DAMA".
10. A chip is declared "DAMA" it reaches and stops in any of the following opponent's square: (1, 0), (3, 0), (5, 0), or (7, 0). Similarly, if an ordinary opponent's chip reaches any of the following squares: (0,7), (2,7), (4, 7), or (6, 7)
11. Once a chip is declared as a "DAMA", it could slide diagonally forward or backward in any vacant square and if it takes a chip, the score is doubled, similarly if a chip takes a "DAMA", the score is also doubled. If a "DAMA" takes a "DAMA", the score is quadrupled.
12. In taking chip/s, the following prevail: "Mayor Dama", "Mayor Dalawa", "Mayor Tatlo", etc.
13. "DAMA" chip should be encircled in the score sheet to identify the "DAMA".
14. Game duration is twenty (20) minutes and it should not exceed twenty (20) minutes.
15. The game also ends if: the moves are repetitive, a player has no more chips to move, a player has no more chips, or a player resigns. "Save by the bell" is not applicable in the end game. Continuation of the move shall be enforced when taking chip/s.
16. The remaining chip/s of a player is/ are added to his total score algebraically. If the remaining chip is a "DAMA", the value is doubled.
17. The player with the greater total score wins the game, except in the SCI-DAMA where the player with the lesser score wins.
18. Only the player is allowed to raise questions during the game through the arbiter and questions should be settled immediately. No questions will be entertained after the games. Arbiter's decision is final.

Breaking the Tie (Round Robin System)

1. ***Win over the other***
2. ***Sonneborn – Berger System*** – the sum of the scores of the opponents a player has defeated and half the scores of the players he has drawn with.
3. ***Progressive Scoring:***
4. ***Progressive Score Cut*** – remove the first round then do progressive scoring. In case there is still a tie, remove the second round and so on.

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MEMBERS OF THE TECHNICAL WORKING GROUP (TWG)

EVENT	Secondary	Elementary
Quiz - Science	***Grade 3*** *Fernandina Lagundino* *Leonarda G. Turalba*	***Grade 7*** *Maria Elena H. Bose* *Nina Jaycel M. Pinera*
	Grade 4 *Amelita B. Paculdar* *Presila B. Tesoro*	***Grade 8*** *Nida A. Sulian* *Wilfredo Gandeza*
	Grade 5 *Silverio Carino* *Lailani P. Camello*	***Grade 9*** *Corazon Luarca* *Rosemarie B. Bigornia*
	Grade 6 *Rolando Antonio* *Cristina B. Padayaw*	***Grade 10*** *Evelyn Diaz* *Randy S. Ardaniel*
	Grade 11/ 12 *Jimmy Ann B. Guillermo* *Renato Bernardez*	
Quiz – Mathematics	***ELEMENTARY*** *Nestor Pacsa* *Alma Wagayen* *Angeline Bumatay* *Catalino Bisquera* *Elvie Tejero* *Alfredo Lanas*	***JUNIOR & SENIOR HIGH SCHOOL*** *Thelma Belleza* *Babyjohn A. Balaoag* *Angeline Bumatay* *Elleanor Turqueza* *Argie Ardaniel* *Juliet Aquino*
Damath	***Grade 7*** *Rodelio Claor and coaches*	***Grade 3 &4*** *Jomar Brub and coaches*
	Grade 8 *Rey Ann Buenafe and coaches*	***Grade 5 & 6*** *Joel Tollas and coaches*
	Grade 9 *Rommel Santua and coaches*	***Grade 10*** *Jovina Baga and coaches*
Math Investigation	*Research-Based* *Ma. Teresa Balido*	*Problem-Based* *Marilou Vasquez*
Secretariate	*Dominga Alcaide* *Vilma Tumalip* *Sherwin Zapatero* *Silverio Quiday*	

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