Republic of the Philippines
DEPARTMENT OF EDUCATION
Cordillera Administrative Region
SCHOOLS DIVISION OF BENGUET
Wangal, La Trinidad, Benguet
Telefax: (074) 422-6570; (074)422-7501

DIVISION MEMORANDUM

August 24, 2018

No. 206 s. 2018

2018 Division Math and Science Festival

To: Public Schools District Supervisors
Elementary and Secondary School Heads
Teachers

1. The Schools Division Office of Benguet will conduct Division Math and Science Festival for the school year 2018-2019 will be held at Tublay School of Home Industries, Acop, Tublay, Benguet on October 10 -12, 208 with the theme; "**Science and Mathematics for the People, Innovation for Collective Prosperity**"

2. This is an annual academic competition to promote Mathematics, Science and Technology consciousness among the youth and identify the most creative/innovative and best researchers, Quizzer and player in Damath/Sci-dama who will represent the division to the Regional Math and Science Festival. **The schools are encouraged to promote Science and Technology Investigatory Projects and Mathematics Investigations that will address the environmental protection and conservation of the ecosystem.**

3. Arrival of Participants and registration will be at Tublay School of Home Industries, Acop, Tublay on October 10, 2018 at 1:30 PM. Coordination meeting of Management will be held at TSHI open gym at 3:00 PM and **working committee meeting will be at the same venue on October 10, 2018 at 10:00 AM**

4. Participants to the said festival are the first place winners for each district in all competing events. **See attached list of the activities.**

5. Submission of Science Investigatory Projects (SIP), Mathematical Investigation (MI), Research Write-up and Strategic Intervention Materials will be October 1, 2018 at 12:00 noon inc uding the list of participants per district. Project write-up for SIP must be in three copies, short folders, soft bound (Cover-Morocco paper) with color code Elementary- Green, Secondary Life-Blue and Secondary Physical-Red.

6. Working committees, criteria for the Search for Outstanding Science Teacher and guidelines for the conduct of the festival are attached as enclosure to this memorandum.

7. Registration fee for the festival is Two Hundred Pesos (Php. 200.00) only and shall be collected per participant and coach to defray expenses incurred while registration fee for meals (6 meals) is Five Hundred Pesos (Php 500.00) starting October 10 (dinner) to 12 (Lunch), 2018 for a total of Seven Hundred Pesos (Php 700.00). Payments through check must be in the name of Tublay School of Home Indsustries. The school may start collecting registration starting October 8, 2018 onwards.

8. Travel, registration fee and other expenses of participants shall be charged against PTA or local funds (MOOE) subject to the usual accounting and auditing rules and regulations.

9. Immediate dissemination of this memorandum is desired.

NESTOR L. BOLAYO
OIC- Schools Division Superintendent

Contested Activities

Activities	Elementary	Secondary
Quiz		
Math	Grade 3-6 (1 participant per grade level)	Grade 7-10 & Senior HS (1 participant per grade level)
Science	Grade 3-6 (1 participant per grade level)	Grade 7-10 & Senior HS (1 participant per grade level)
Damath		
	Whole No. (Grade 3 - 4) 1 Participant	Grade 7-10 (Integers, Fractions, Radicals and Polynomials) 1 per grade level
	Fraction Damath (Grade 5-6) 1 Participant	
Sci-Dama		
	Water Patrol (Grade 3-4) 1 Participant	Grade 7-10, (Electro, Sci-Notation, THI, Thermo Dynamics) 1 per grade level
	Power Patrol (Grade 5-6) 1 Participant	
Math Research/MI	None	Open (Junior High School) Cluster 1: Regular Classes Cluster 2: Science Classes
		Open (Senior High School) Problem Based Investigation –Team and Individual
Science Investigatory Project/SIP	Open Team (Life and Physical as one) Individual (Life and Physical as one)	Open (Junior and Senior High School) Cluster 1 : Physical Science Team and Individual, Life Science Team and Individual
	Note: all Schools are encouraged to make Science and Math Investigatory Project	Cluster 2: Physical Science Team and Individual Life Science Team and Individual
Teacher Category	Elementary	Secondary
1. Search for Outstanding Science Teacher	1 per district	1 per district
2. SIM		
Math	One per grade level (Grade 4-6)	One per grade level (Grade 7-10)
Science	One per grade level (Grade 4-6)	One per grade/year level (Grade 7-10)

Guidelines on the following:

- Math and Science Quiz
  a. Participants to the Math and Science quiz are the district champions in the Elementary and Secondary.
  b. The Division Science quiz shall be conducted in a quiz show format wherein all contestants are seated facing the stage or board while Math quiz will follow the MTAP format
  c. The Math Quiz will be composed of Easy (to be solved mentally), Average and Difficult questions to be answered with a written solution in papers to be distributed during the event.
  d. "Clincher" or "Do or Die" questions will be given in case of ties.
  e. Science Quiz will be composed of Easy, Average (in multiple choice type) but not for the Difficult and Clincher questions.

Subject Area	Easy	Average	Difficult	Clincher/Do or Die
Math	15 sec	30 sec	60 sec	To be announced by the Quiz Master
Science	10 sec	15 sec	30 sec	
Math Quiz: (Same with MTAP format)				

f. There shall be Easy, Average and Difficult rounds of five (5) questions per category. Each correct answer for easy round is given two (2) points, average round three (3) points and difficult round five (5) points. In case of tie/s, clinchers/do or die questions will be given until the tie is broken. Each contestant will be given answer sheets to write their answers.
g. The quiz master will read the questions twice. After the second reading, the quiz master will say "GO" and the time to start writing their answer will begin. The buzzer sounds after the given time limit and the contestants will raise their answers for recording and verification by the proctors and board of judges.
h. If the proctor 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.
i. The duly registered coach of the contestant is only the authorized person to make protest. All protest should be referred to the board of judges before the quiz master reads the next question. No protests will be entertained after the quiz master has read the next question.
j. Any violation of the aforementioned rules shall cause the disqualification of the contestant/s concerned.
k. All participating coaches (Elementary & Secondary) shall submit 3 questions Easy, Average and Difficult to be submitted on or before September 27, 2017

- Math Investigation

A) Research Based Math Investigation
(Cluster 1 and 2, Individual and Team Categories)

1. Is an open contest to all secondary schools regular (Cluster 1) and science classes (Cluster 2), individual and team categories. Math research in Elementary and Secondary entered under the physical science entry will be forwarded to division office as entry to the said contest.

2. Submit write-up in 3 copies (Team and Individual)

3. The team category will composed of 2 to 3 members with one adviser and separate participants for the team category.

4. No display board during defense, only power point presentations and models only.

5. To determine the participants to Regional Math and Science festival the 1st place for cluster 1 and 1st and 2nd place for cluster 2 team and individual will composed the first top three (3)

6. Criterion on Mathematics Investigation (Write-up)

a. Use of Notation (2pts)

Achievement Level	Descriptor
0	The student does not use appropriate notation and terminology
1	The student uses some appropriate notation and terminology
2	The student uses appropriate notation and terminology in a consistent manner and does so through the work.

b. Communication (3 pts)

Achievement Level	Descriptor
0	The student neither provides explanations nor uses appropriate forms of representation.
1	The students attempt to provide explanations or use some appropriate forms of representations.
2	The student provides adequate explanations or arguments, and communicates them using appropriate forms of representation.
3	The student provides complete, coherent explanations or arguments, and communicates them clearly using appropriate forms of representation.

c. Patterns (5 pts)

Achievement Level	Descriptor
0	The student does not attempt to use a mathematical strategy

Individual and Team (2 members only)

2	The student organizes the data gathered.
3	The student attempts to analyze data to enable the formulation of a general statement.
4	The student successfully analyzes the correct data to enable the formulation of general statement.
5	The student tests the validity of the general statement by considering further examples.

d. Generalization (5 pts)

Achievement Level	Descriptor
0	The student does not produce any general statement consistent with the patterns and/or structures generated.
1	The student attempts to produce a general statement that is consistent with the patterns and/ or structures generated.
2	The student attempts to produce a general statement that is consistent with the patterns and /or structures generated.
3	The student expresses the correct general statement in appropriate mathematical terminology.
4	The student correctly states the scope or limitations of the general statement.
5	The student give a correct, formal proof of the general statement.

e. Use of Technology (3 pts)

Achievement Level	Descriptor
0	The student uses a calculator or computer for only routine calculations.
1	The student attempts to use a calculator or computer in a manner that could enhance the development of the task.
2	The student makes limited use of a calculator or computer in a manner that enhances the development of the task.
3	The student makes full and resourceful use of a calculator or computer in a manner that significantly enhances the development of the task.

f. Use of Work (5pts)

Achievement Level	Descriptor
0	Did not present his/her work
1	The student has shown a poor quality of work.
2	The student has shown a satisfactory quality of work.
3	The student has shown a very satisfactory of work
4	The student has shown an outstanding quality of work.
5	The students has shown an exemplar quality of work

Oral Defense (10pts)

B) Problem-Based Mathematics Investigation:
- Individual and Team (2 members only)
- Mechanics see attached.

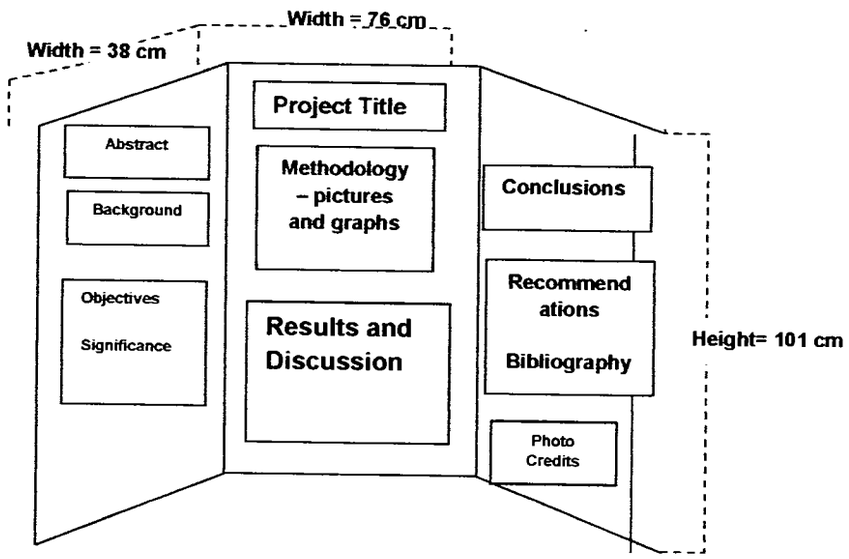
- Strategic Intervention Materials
  - Same format and mechanics
  - The defense is 15% while the print manuscript is 85%

Parts:

a) Title Card
b) Guide Card
c) Activity Card
d) Assessment Card
e) Enrichment Card
f) Key Answer
g) Reference Card
h) MOV's (write-up)

Science Investigatory Project

The Exhibit: Science Investigatory Project
Size of Project



The project display using sets of any paper or board summarizes the research project and must focus on the proponent's work for this year's study, and if applicable, with only minimal reference to previous research.

Required to be displayed: Science Investigatory Project: a) Abstract b) Background c) Objectives d) significance e) Schematic diagram of the research methodology f)Data g) Results and discussion h)Conclusions i)Recommendations (Include illustrations and graphs

Note: proponent should not include his/her face in the project's procedure/illustration in the display.

Required to be presented by the Project Proponent to the BOJs during the exhibit:

- Copy of the required forms
- Copy of the research write-up
- Logbook or project data book or student journal complete with dates of entry, number of pages and all other details (refer also at ISEF students handbook
- No tarpaulin, use card board or plywood, no border line.

NOTE: Reminders: President, Vice-President, Secretary and Treasurer of the Math and Science officers and committees should be present during the meeting of officers and committees at Lepanto National High School on October 4, 2017 at 10:00 AM.