

**MEMORANDUM**

**Division Memorandum**

No. 132, s. 2018

**TO** : School Heads Public & Private Elementary and Secondary Schools  
 Mathematics Coordinators and Coaches

**FROM** : **CATALINA P. PAEZ, PhD, CESO VI**  
 Schools Division Superintendent

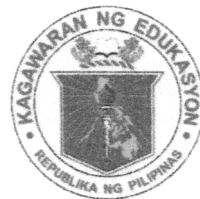
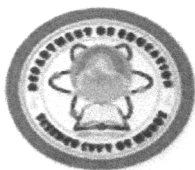
**DATE** : September 17, 2018

**SUBJECT** : 2018 DIVISION INTER-SCHOOL MATHEMATICS COMPETITION

1. This is to announce the conduct of **2018 Division Inter-School Mathematics Competition** on October 22, 2018 at Muñoz Central School.
2. The competition aims to:
  - a. provide students the opportunity to hasten their problem solving skills on the different contents in mathematics;
  - b. develop teachers' creativity in constructing improvised teaching and learning materials;
  - c. develop learners' critical and analytical thinking skills ;
  - d. produce mathematically inclined learners who will represent the division in the forthcoming Regional Inter-Divisions Mathematics Competition; and
  - e. instill the values of camaraderie, teamwork, creativity and love.
3. The following are the contest events/categories.

Pupil/Student category		Teacher category
Individual	Group	
Math Quiz Bee (G1-G11) Sudoku(Elem & Sec. ) Rubik's Cube(Elem & Sec. )	Math Trail (Secondary) Team Orals (Elementary)	Strategic Intervention Materials (SIM)

4. A registration fee amounting to Fifty Pesos (Php.50.00) shall be collected from each contestant per event/category to cover the expenses for contest materials, foods of the members of the Technical working committees and other incidental expenses which shall be charged against school MOOE and other local funds subject to usual accounting and auditing rules and regulations. All participants and coaches are enjoined to provide their own packed snacks and lunch.
5. School Heads are advised to submit official list of contestants and coaches of their school and pay the corresponding registration fees at the Division cashier on or before October 15, 2018 for proper planning and budgeting.
6. School heads and selected Mathematics coordinators and coaches shall serve as facilitators in the different categories/events to be indicated in the program which will be distributed a week before the competition.
7. Attached herewith are the contest guidelines and mechanics for ready reference.
8. Immediate and wide dissemination of this memorandum is enjoined.



Enclosure No. 1

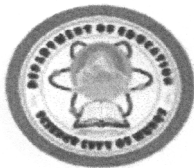
## **CONTEST MECHANICS**

### **Math Quiz Bee**

1. **Contestants:** For elementary level (G1-G6), one (1) pupil per grade level.  
For secondary level (G7-G11), each school may send 1 to 3 contestants /grade level.
2. Thirty (30) questions will be given and every correct answer is worth 1 point.
3. Math Quiz Bee for G1-G3 is a written/oral competition. The quiz master shall read each question twice and the contestants may begin solving as soon as they wish. Questions shall be answered in 1 minute. Time starts after the 2<sup>nd</sup> reading of the question by the quiz master.
4. Math Quiz Bee for G4-G11 is a written exam. Test papers shall be distributed (face down) to each contestant. A signal will be given for the contestants to begin reading and answering the test questions. One (1) hour time allotment shall be given.
5. The total number of correct answers shall be the contestant's score. The contestant with the highest score shall be declared as the 1<sup>st</sup> place winner, the second highest-2<sup>nd</sup> place winner, the third highest-the 3<sup>rd</sup> place winner.
6. In case of a tie, Clincher Round shall be played. It will be a knockout system between or among the contestants with equal scores until a winner emerges. The first one who can answer correctly will be declared the winner.

### **Team Oral Competition (Elementary Level)**

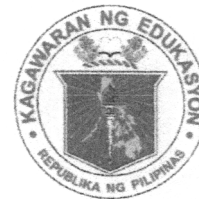
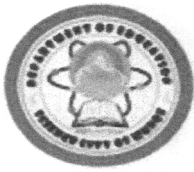
1. Contestants: Each school may send only 1 team composed of One (1) G5 & one(1) G6.
2. The Division Finals is a written-oral team competition.
3. Each team will be provided with slips of paper for the answer to each question. Before the first question, they will write their team identification on each slip.
4. There shall be 20 questions: 10 fifteen-second questions worth 2 points each, 5 thirty - second questions worth 3 points each and 5 one-minute questions worth 5 points each for a total of 60 points.
  - a. The 15-second questions are to be answered mentally. There will be no writing anywhere, neither on paper, the table, etc. The team, of two, will work together as one to discuss their answer to the question. They may start discussing their solution after the first reading of each question.
  - b. For the 30-second questions, scratch paper will be provided for each team contestant. Contestants may begin solving as soon as they wish.
  - c. For 1-minute questions, a copy of the questions will be provided for each team. Scratch papers will be provided.
5. The quizmaster will read each question twice; after which he/she gives the GO signal. The timer starts when the quizmaster gives the GO signal.
6. Each answer will be written on the official answer slips provided. As soon as the buzzer rings, everybody must stop writing.
7. Proctors will collect the answer slips and give them to the judges who sort them into two sets: those with correct answers and those with wrong answers.
8. One of the judges will announce the teams with the correct answer. The scorers record the points obtained by each team for each correct answer.



9. Answers must be given complete with units and to the required accuracy. However, if the unit is already given in the way the question is asked, it need not be given in the answer.
10. The teams will be ranked according to their total score in the three parts to determine the winners.
11. In case of a tie among any of the teams vying for the first three places, a set of 3 questions will be given to break the tie, one from each category of questions. If the tie is not broken after the three questions, "do or die" questions will be given.
12. Only the official contestants may raise a complaint or clarification. Complaints on a given question should be made before the next question is asked. This should be directed to the Chairman of the Board of Judges. The board of judges shall resolve complaints and problems regarding the test questions and their respective answers. All decisions of the board of judges shall be final.

### **Math Trail(Secondary Level)**

1. Math Trail is a group competition for secondary level. Each group must have 4 members, one member each from Grades 7-10.
2. All four members of the team must be in their classified school uniform and must wear their IDs at all time for easy identification. Only ballpen or sign pen is allowed to be used in solving all the contest problems.
3. Borrowing or lending of calculators between or among teams is strictly prohibited and is a ground for automatic disqualification.
4. Coaches or teachers are not allowed to enter the contest area so as not to disrupt the conduct of the contest.
5. Bringing or using of mobile phone, MP3/4, Ipod or any gadgets for that matter is not allowed during the competition. Each team is required to bring measuring devices.
6. The competition is composed of 6 checkpoints or stops, that is, stations containing different data or important information needed to answer a particular problem. Every team must get whatever data/ information that each station may provide or suggest.
7. The competition is good for one and half hour, inclusive of the gathering data and answering of the contest problems.
8. Initially, all teams will be assigned to go to a designated checkpoint/stop, after which the teams can freely proceed to any checkpoints of their preference to gather data/information.
9. Every team must read the instructions carefully about what ought to be done in every checkpoint. After gathering all the available or needed data from the 6 stations/checkpoints, the team must proceed to the problem solving area and get the contest problems and the answer sheets from the proctor. Look for an available area in this problem solving area and solve the problems using the data gathered.
10. Each team is allowed to stay in every checkpoint for only five (5) minutes to gather the data and other pertinent information. The designated proctor will announce the starting and ending time for the team to be in a particular station. Staying in a checkpoint more than the allowed time will mean points against the overstayed team (-1/min.)
11. There should be no more than three (3) teams allowed to be in one checkpoint and there should be no two teams to crowd in one contest material to gather data/information. In the event a team has finished gathering data before the allotted time, then it can go to another



vacant checkpoint. If no checkpoint is available then the said team has to wait until any team leaves or moves out from the checkpoint.

12. No member of the team is allowed to mark, erase, deface, tear, crease, add or alter any figures, arrangements, lines, positions of any materials placed for the purpose of measurement. Any member of the team who is caught violating this rule means disqualification of the whole team.
13. In any event a situation arises not covered by any rules or mechanics of this contest, it will be referred to the members of Contest Committee for their judgment and pronouncement. The decision of the Board of Judges is final.

**Sudoku Challenge**

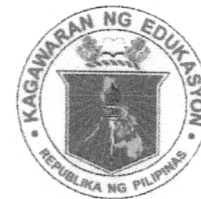
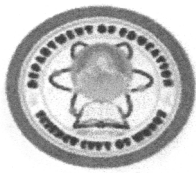
1. **Contestants:**

Elementary Level	-	1 elementary pupil/school
Secondary Level	-	1-3 secondary students/school
2. The Sudoku contest is composed of three (3) rounds. The participants are given 30 minutes each round to answer 3 puzzles which come in different variants. The puzzles may come from any of the following: Standard, Diagonal, and Wordoku.
3. The points per puzzle is 10 to 20 points each depending on the level of difficulty and bonus points shall be computed and considered at the end of the three rounds. Any puzzler in any category who finishes answering correctly all the puzzles before the allotted time get corresponding bonus points.
4. In determining the top scorers of each grade level, the sum of the scores in every round of each participant shall be added and ranked accordingly.
5. In case of a tie, the technical committee will provide a fair and just scheme to break it.
6. The technical committee reserves the right to change or improve any part of the mechanics of the contest without prior notice to the participants for as long as the change/s will not affect the purpose or objective of the contest.
7. In the event a situation arises not covered by any rules or mechanics of this contest, the members of the Technical Committee shall determine the final judgment and pronouncement.
8. The decision of the Board of Judges is final and irrevocable.

**Rubik's Cube**

1. **Contestants:**

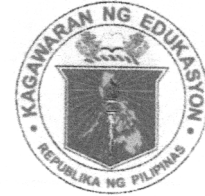
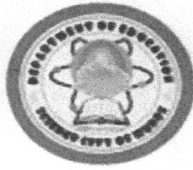
Elementary Level	-	1 elementary pupil/school
Secondary Level	-	1-3 secondary students/school
2. The Rubik's Cube competition has three (3) elimination rounds. In each round a number of contestants will be eliminated.
3. In each round, contestants are given 15 seconds inspection time.
4. For Round 1, the contestants will solve one (1) Rubik's Cube puzzle rearranged by the facilitator/s.
5. The time starts immediately after the contest administrator announces the "GO" signal. The time stops when the contestant had completely solved the puzzle (it is said to be solved after putting it back in proper order, each face will have only one color) and had raised their hands. An official timer will be assigned to monitor each contestant's speed in solving the Rubik's Cube puzzle.
6. The time of each contestant will be recorded. All the contestants will be ranked according to least time consumed. The top eight (8) contestants will advance to the next round.



7. In Round 2, the qualifiers will solve two (2) Rubik's Cube. In this round, the qualifiers will be given the chance to rearrange the cubes of their competitors. (Ex. The 2<sup>nd</sup> qualifier will rearrange the Rubik's cubes to be solved by the 1<sup>st</sup> qualifier, the 3<sup>rd</sup> qualifier will rearrange the Rubik's cubes to be solved by the 2<sup>nd</sup> qualifier and so on..) The time consumed by each qualifier in solving the Rubik's Cube puzzle will be recorded. Qualifiers will be ranked according to the amount of time they consumed. The top five (5) fastest Rubik's Cube solver will qualify for the FINAL Round.
8. In the FINAL Round, the FINALISTS will be using three (3) Rubik's Cube. One by one, they will solve the cubes rearranged by the facilitator/s. They will be ranked according to least time consumed. The TOP THREE (3) FINALISTS will be recognized as WINNERS – 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> Placers.
9. In any round, if at least one part of the cube used by any contestant will be displaced from the cube accidentally, the contestant will still be allowed to fix and continue solving the puzzle, given that his time will also continue. However, the contestant is no longer allowed to continue if he/she happened to place down the Rubik's cube before the puzzle was solved.
10. For any reason, the contestants will be allowed to perform corner twists but not in a successive manner.
11. In case of a tie, the contestants will solve one (1) Rubik's Cube puzzle rearranged by the facilitators. The fastest Rubik's Cube solver prevails.

### **SIM (For Teachers)**

1. SIM must be submitted on or before October 8, 2018 at the Division Office, Attention: Winnie W. Poli, EPS-I, Math
2. Topics may be from any competencies in Grades 1 to 6 Mathematics for Elementary and Grades 7-11 for Secondary
3. It must be made in 3 copies using any materials following the size of short bond paper.
4. All entries shall be evaluated by the members of the Division Quality Assurance Team (DQAT) of LRs using the Evaluation Rating Sheet below. Only the Top 5 scorers are qualified to proceed to the next round for presentation on the date of the contest. They will be notified not later than October 19, 2018.
5. SIM presenters shall be rated based on their delivery and fluency (50%) and mastery (50%). Thirty percent (30%) of the teacher's presentation rating plus seventy percent (70%) of the SIM evaluation rating constitutes the overall score of the teacher.
6. Top 3 scorers will be recognized as winners – 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> placers



### Evaluation Rating Sheet

**DIRECTION:** Rate the materials 1-5 in the blanks provided, with 5 as a high score

- |                      |                       |
|----------------------|-----------------------|
| 5- Outstanding       | 3 - Satisfactory      |
| 4- Very Satisfactory | 2 - Less Satisfactory |
|                      | 1 - Unsatisfactory    |

#### CONTENT

- Aligns with curriculum and standards, & is current, valid and reliable, with real-world examples
- Is age appropriate and is designed to meet the needs of individual learners from various skills levels
- Is in-depth and enhances conceptual understanding and engages higher order of thinking skills
- Is free from bias
- Promotes manipulation of data and digital information, and encourages personal responsibility for learning

#### EQUITY AND ACCESSIBILITY

- Materials are durable, easily stored, transported and are universally accessible
- Materials are easily updated and are adaptable and customizable to match the resources of the school
- Materials work properly without purchase of additional components
- Materials can be used by all students without extensive supervision or special assistance
- Materials meet the requirements of federal and state laws and accepted technical standards

#### ASSESSMENT

- There is an observable performance that is relevant to real world experience and that can be used to measure student engagement
- Assessment methods are appropriate and suited to the learning objectives
- Assessment is suited to goals and student ability and easily assesses what has been learned
- The materials keep an on-going record of students' progress and allows the teacher full access to individual student monitoring of activities, assignments, assessments, & grades
- There are pre and post assessments, and positive, meaningful feedback and prescriptive guides for remediation are provided

#### ORGANIZATION AND PRESENTATION

- Content and directions are clear and understandable and distinguish between important and trivial information
- Materials are easy to navigate through
- Requirements for the instructors are clearly stated
- There are provisions for the practice of old and new skills, and for students to enter and exit materials easily
- Materials are interactive and provide high quality sensory experiences for all users

#### INSTRUCTIONAL DESIGN AND SUPPORT

- The delivery method is used appropriately and successfully engages the student
- Technical procedures, such as installation and setup are easy and error free
- Technical specifications and limitations are adequately described and noted
- Adequate professional development is provided, with reasonable time and numerous opportunities
- Assistance is readily available at any point in the website and many supplemental resources are available

         **PERCENTAGE SCORE (RAW SCORE/125 \* 100)**