#### **DIVISION MEMORANDUM**

No. 287, s. 2017

To:

Heads of Public Elementary, Secondary and Integrated Schools Science Department Heads/ School Science Coordinators



#### 2017 DIVISION SCIENCE AND TECHNOLOGY FESTIVAL/ACTIVITIES

- 1. This is to announce that the **Division Science Festival and other Activities** shall be held on September 8,15,22 and 29,2017.
- 2. The activity aims to:
  - 2.1 provide learning experiences for students to develop their 21st century skills in Science.
  - 2.2 promote Science and Technology consciousness among the students and identify the most creative/innovative and the best student researchers who will represent the Division in the Regional Science Fair.
  - 2.3 provide opportunity for teachers to show and share their best practices in teaching (Teaching strategies, activities and teaching materials.)
- 3. The following enclosures are attached:
  - 3.1 Schedule of different activities and contest / events and venues.
  - 3.2 Contest guidelines and criteria for judging of the different contests.
  - 3.3 Assignment of contest administrators and working Committee
  - 3.4 List of demonstration teachers
- 4. All Science teachers are required to attend the teaching demonstrations of selected science teachers on September 15, 2017. Below is the schedule of the said activity.

Time	Teachers required to attend
8:00 – 10:00 am	Grade 3 and 4
10:00 – 12:00nn	Grade 5 and 6
1:00 – 3:00pm	Grades 7 -10
3:00 – 5:00pm	Grades 11-12

- 5. Teacher-Coaches and District Science Coordinators are authorized to attend during the Science and Technology Fair on official business.
- 6. School Heads should make the necessary arrangement to ensure that classes of teacher participants are taken care of pursuant to the Time on Task Policy.
- 7. Wide and prompt dissemination of the content of this memorandum is requested to ensure full participation of all concerned.

LEILANI S CUNANAN, CESO VI Officer-In-Charge-

Office of the Schools Division Superintendent

# Enclosure 3.1 to Division Memorandum n. 44's 2017

# SCHEDULE OF DIFFERENT ACTIVITIES

Date	Activities	Venues	Persons/Schools involved
September 8,2017	(Hands-On-Minds-ON	School- Based	All Cluster winners
September 15,2017	Activity) Project AIMS (Part 1)  • AM- Demonstration of Best Teaching Practices (Strategies and teaching Materials/Activities)  • PM- Exhibit and Congress of Science Instructional Materials(SIM)	Angeles City Science High School	All Science Teachers
September 22,2017	Project AIMS (Part 2)  • AVP Best Teaching practices in Science per cluster  • Most utilized Science Room/	OI -tom Trunner	
September 29,2017	Laboratory Room  Science and Technology Fair 2017	7 011	All Cluster winners

# SCHEDULE OF CONTEST EVENTS DURING SCIENCE AND TECHNOLOGY FAIR

Time	Activity/Contest			*
8:00 – 9:00	Registration			
9:00 - 9:30	Opening progra			
9:30 - 10:00	Orientation of C	Contest Administrators		- Science
10:00 – 12:00	Quiz Bee Grades 4-10	Robot-Tech Grade 6-Individual/ Robotics High School	- Odyssey of the mind	investigatory Project (SIP
11:00 - 12:00				
12:00 - 1:00		Lunch Break		
1:00 - 2:00			Luc de Cabacal	
2:00 - 3:00	Science investigatory Project (SIP) Elem and High School			
3:00 - 5:00	Closing program and Awarding of winners			

Enclosure 3.2 to Division Memorandum n. 2015 2017

# CONTEST GUIDELINES AND CRITERIA FOR JUDGING OF THE DIFFERENT CONTESTS/ACTIVITIES

#### **GENERAL CONTEST GUIDELINES**

- 1. Each contestant should be at the contest venue 15 minutes before the contest starts and should register.
- 2. A code number will be assigned per contestant through first come first serve system for identification.
- 3. Contestants are required to attend the briefing with the contest administrator.
- 4. Contestants must wear the school ID during the contest.
- 5. Only authorized persons are allowed to stay at the venue during the contest proper.
- 6. Borrowing of tool and materials from other competitors is not allowed while the contest is in progress.
- 7. Contestants are not allowed to use cellular/mobile phones and the like during the contest.
- 8. The decision of the Board of Judges is final and unappeasable.

#### SPECIFIC CONTEST GUIDELINES

#### I. ODYSSEY OF THE MIND (Grade VI)

- The contest is a hands-on minds-on activity where each contestant will have to answer questions, perform a science activity by following specific directions that require cognitive and psycho-motor skills and fluency in oral communication of science ideas and concepts
- Each contestant will have to go through 5 learning stations (LS) starting from Learning Station 1 (LS1) to LS5.
- 3. Each LS has a learning packet, Directions to follow IN PRINT.
- 4. Individual LS is manned by a member of the Board of Judges who acts as the evaluator of the learning outcome.
- 5. Performance in each LS is under time pressure. Communication skills, speed, accuracy and correctness of activity results called for are being assessed.
- 6. The hands-on minds-on activities will focus on any of the following content standards:

Living Things and Their Environment Force, Motion and Energy
Matter Earth and Space

- 7. A Performance Rubric will be used to rate the performance of each contestant in every learning station
- 8. Awarding of the top 5 winners will be after the event.

### II. ROBOTICS/ ROBOT-TECH (Grade VI and High School)

- 1. Participant is elementary pupil from Grade VI who is the division winner in Robot-Tech.
- Material used: LEGOS
- 3. Criteria for judging

a. CREATIVE DESIGN
 Creative Appearance, Interactive Behavior

b. TECHNICAL DESIGN 30 points

Good Engineering, Stable Structure

c. PRESENTATION 30 points

Successful/ Stable Demo Clear

Concept in presentation Over-all Appearance

d. JUSTIFICATION

TOTAL

10 points 100 POINTS

- 1. Participants to the Science Quiz are Cluster Level 1st place winners in **Grades 4-10**.
- The Division Finals of the contest shall be conducted in a Quiz Show Format.
- 3. There shall be four (4) rounds for all categories: Easy, Average, Difficult, and Clincher. There shall be ten (10) easy questions, five (5) average questions, and five (5) difficult questions. All contestants shall answer all questions in the 3 rounds. Each correct answer in every round will be given corresponding points, to wit:

Easy 1 point Average 3 points Difficult 5 points

- 4. Each contestant shall be provided with Show Me Board and white board marker.
- 5. Each question must be answered within the time allocated for it. Ten (10) seconds for the easy part, twenty (20) seconds for the average questions and thirty (30) seconds for the difficult questions. Quizmaster shall read each question twice and the time shall start only after the quizmaster says "GO".
- 6. The contestant must write his/her final answer on the Show Me Board. If a contestant wishes to change his/her answer, the former answer should be erased and the final answer is written.
- 7. All answers must be spelled correctly to be considered correct. If the answer is a proper noun, capitalization of the first letter of the word is also a basis in declaring an answer correct.
- 8. Questions shall indicate the number of significant figures for numerical answers. Use of calculators is not allowed.
- 9. After the time limit has expired, each contestant must show his/her answer to the audience before the quizmaster reads the correct answer. The proctors shall read and acknowledge whether the answer of each contestant is correct or not.
- 10. If there is a question on the correctness of the answer, the validity of the answer will be determined by the Board of Judges. The decision of the Board of Judges is final. Solutions may be checked by the Board of Judges if needed.
- 11. The total score of a contestant after three rounds shall be his/her score. The contestant with the highest final score shall be declared as the first place winner, the second highest-second place winner, the third highest-the third place winner, and so on.
- 12. In case of a tie, the 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.
- 13. The duly registered coach of the contestant is the only person authorized to file a protest. All protests shall be referred to the Board of Judges before the quizmaster reads the next question. No protest shall be entertained by the Board of Judges when the quizmaster started reading the next question.
- 14. Any violation of the aforementioned rules shall cause the disqualification of the contestant concerned.

#### IV. SCIENCE INVESTIGATORY PROJECT

Science research/investigatory projects should be new (not repetition of years back projects) or continuation of the previous year's project and conform with international rules published by the Intel International Rules for Pre

College Science Research: Guidelines for Science and Engineering Fairs (see <a href="http://www.societyforscience.org/isef/rulesandguidelines">http://www.societyforscience.org/isef/rulesandguidelines</a>). Each project should have one Research Adviser and an Institutional Review Board or a Scientific Review Committee.

# CRITERIA FOR JUDGING THE SCIENCE INVESTIGATORY PROJECT (ELEMENTARY AND SECONDARY LEVELS)

#### A. Science Thought and Engineering Goals

30%

- 1. Scientific Thought
  - a. Brief and clear statement of the problem
  - b. Well defined procedure
- 2. Engineering Goals
  - a. Clear and relevant objective/s
  - b. Economically feasible solutions
- 3. Potential Contribution/ practical value

#### B. Creative, Resourcefulness and Inventiveness

30%

- a. Creative ability in presenting the problem/in the approach to solve the problem
- b. Innovative design / new idea shown
- c. Intelligence and imagination in finding ways / means to undertake the project

C. Thoroughness

15%

- a. Familiarity with scientific literature in the relative field
- b. Awareness of other approaches or theories
- Appropriateness of methodology

D. Research Skill

15%

- Use of laboratory equipment/ innovative resources
- b. Appropriate, orderly and effective presentation of data

#### E. Oral Presentation Skills

10%

- a. Clear and thorough discussion of the project
- b. Clarity and conciseness of explanation pertaining to important aspects of the research proposal
- c. presentation aided by AV materials
- d. over-all personality
- e. self-confidence
- f. enthusiasm

### SCIENCE INSTRUCTIONAL MATERIALS (Teacher Category, Individual)

- The IM shall be presented in a Congress before a Panel of Reactors/ Judges. Presentation
  of the functionality and usage shall last for 10 minutes, 10-15 minutes for questions and
  remarks from the Panel of Reactors, and 5 minutes for the wrap-up synthesis of the
  Presenters.
- The IM shall be submitted in three (3) copies to the CID Division, Division Office, for review
  of the Panel of Reactors on or before <u>September 10,2017</u>. Late submission will invalidate
  the entry.
- 3. The IM MUST show the following:
  - a. Available local resources are used to perform experiments
  - b. Cheaper products to simulate experiments (Production Cost)
  - c. Scientific principles involved/ Concepts underlying the device
  - d. Important life skill/s to be developed in the learners
  - e. Quality of the science equipment
  - f. Can be replicated and shared to other teachers
- 4. Criteria to be used in the Congress shall be defined by the Board of Reactors/Judges.
  - Deadline for the submission of IM's write ups will be on <u>Sept. 06,2017</u>

## SCIENCE ACTION RESEARCH (Teacher category- Individual)

- 1. Participant is the Division Winner for Best Science Action Research. The research is classroom or school- based which results shall have been utilized to improve student/ teacher/ school performance.
- 2. Paper presenters (Division Winners) are required to submit to the CLMD Division, Regional Office III the Abstract of the Research and three (3) hard copies of the full version of the research paper (in double-spaced short- sized bond paper) on or before <u>September 22</u> for review by the Panel of Judges. Late submission will disqualify the entry.
- 3. Abstract on A4 size bond paper, Times New Roman font type, font size 12 and double-spaced. The presentation of the Abstract shall be Oral and lasts for 10 minutes, 15 minutes for clarificatory questions from the Board of Judges and 5 minutes for the wrap-up-synthesis A PowerPoint presentation shall be used. Presenters must follow the rules and proper use of PowerPoint presentations.
- 4. The full version of the paper shall use the "author, date "in text-referencing format and shall have the following format: Title, Abstract (with key words), Introduction (including statement of the problem, conceptual framework), Brief Review of Literature, Methodology (Design, Locale, Respondents, and Statistical Tools), Findings and Discussions, Conclusions and Recommendations. References (if any).
- 5. Criteria to be followed in the regional congress for action research will be presented on the spot by the Board of Judges

### SCIENCE LABORATORY ROOMS/SCIENCE ROOMS

- 1. Properly storage of equipment and other science materials
- 2. Functional Laboratory equipment /materials

# **AUDIO VISUAL PRESENTATION (Teaching Science)**

- 1. Clarity (Video and Audio)
- 2. Content (Utilization of varied Teaching Strategies, materials and activities)
- 3. Creativity

# ASSIGNMENT OF CONTEST ADMINISTRATORS

Contest Event	Grade 4/7	Grade 5/8	Grade 6/9	Grade 10 -12
1. Science Quiz – Grade 4-12	Enrique Pallasigue Egbert Tiglao Teresa Alfonso	Michelle Yumul Agnes Punzalan Raymark Manlapas	Lorna Lacsina Bryan Samia Rea Serrano	Raymond Mangilit Lorie D. Macatula Edith Hipolito
2. Odyssey of the N		Lolita Bautista , Zei	naida Calma Jeilani	Soriano
<ol><li>Robot Tech/ Rol</li></ol>	ootics	Lolita Bautista , Zenaida Calma , Leilani i Soriano Benjie Cupidos , Arnel Perez		TOOHAHO
4. SIP Life Science		Maricel Alamag		
5. SIP Physical Sci	ence	Romina Quilla		
6. SIP RIM		Hariette Mendoza		
7. Science Action R	esearch	Lolita Bautista		
8.Instructional Mate	erials in Science	Jelyn Eden Herrera		
9. AVP		Reggie Tuazon		
12. HAMON		All District , Junior and Senior Coordinators		

### WORKING COMMITTEE

1. Over –all Event/ Con	itest Coordinator:	Mrs. Editha Hipolito
	Co- Coordinator:	Mr. Bryan Samia
	Members:	Mrs. Teresa Alfonso
		Mrs. Lorie D. Macatula

ACNTS Science Teachers
FGNMHS

3. Awards ,Medals and Certificate	Mr. Bryan Samia
	Mrs. Lorie D. Macatula
	Mrs. Teresa Alfonso
	Ms. Jelyn Herrera

4.	Refreshment and Tokens for Judges	Mrs. Lorie Macatula Mrs. Michelle Yumul
		THE THEIR TUINE

	Venue and Decorations Consolidation of Winners	Mrs. Edith Hipolito Mrs. Rea S. Serrano Mr. Egbert Tiglao
7.	Event Organizer:	Mrs. Jessinda Tolentino Dr. Gemima A. Estrabillo

# LIST OF DEMONSTRATION TEACHERS

Grade Level	Name of Teachers		
3	Resmelito M. Ramos Pampang Elementary School Camille Dungca Gueco Elementary School	Rinalyne Tolentino Angeles Elementary School	
4	Helen E. Del Mundo Malabanias Integrated School	Fatima Nuquid Jose P. Dizon Elementary Sch	
5	Lorna D. Lacsina Epza Ressetlement Elementary Sch	Rea T. Serrano Cut- Cut Elementary School	
6	Edward Quito Northville I5 Integrated School	Reggie Tuazon Sto. Rosario Elementary Schoo	
7	Leilanie Soriano Angeles City Science High School Virgilio L. Antolin Jr. Angeles City National High School	Raymark Manlapaz Angeles City National Trade So	
8	Sherilyn L. Reyes Francisco G. Nepomuceno Memorial High School	Larissa G. Manalili FGNMHS	
9	Raymond Mangilit Angeles City National Trade Sch	Leigh Ann D. Alvarado FGNMHS	
10	Justher A. Lugtu Rafael L. Lazatin Memorial High School	Elaine Corpuz	
11			
12			