



**DIVISION MEMORANDUM**

No. 243s. 2017

**TO :** Assistant Schools Division Superintendent  
Chiefs, CID / SGOD  
Education Program Supervisors  
Heads, Public and Private Secondary and Elementary Schools  
Elementary and Secondary School Science Teachers

**FROM :** CATHERINE P. TALAVERA, PhD. *ja*  
OIC – Schools Division Superintendent

**SUBJECT :** 2017 DIVISION SCIENCE AND TECHNOLOGY FAIR AND CONGRESS

**DATE :** August 31, 2017

1. Pursuant to the conduct of 2017 Regional Science and Technology Fair, this office through the Curriculum Implementation Division (CID) announces the conduct of the 2017 Division Science and Technology Fair & Congress (DSTFC) with the theme ***“Liberating Science Education to foster Creative and Excellent Learners and Teachers”*** on October 3-4, 2017 at Dapdap Integrated School.
2. The DSTFC as a co-curricular program of the division aims to:
  - a. promote science and technology consciousness among the youth;
  - b. identify the most creative and best Science Investigatory Projects which will represent the city division in the regional and national level;
  - c. strengthen the skills of teachers in science research and pedagogy.
3. All contest categories are open to pupils, students and teachers from both public and private elementary and secondary schools in the City Schools Division of Tayabas.
4. Travel expenses, food, supplies, materials and other related expenses of the participants shall be charged against local funds subject to the usual accounting / auditing rules and regulations.
5. Immediate and wide dissemination of this memorandum is desired.

**CID-Science DM 243s. 2017 / Division Science and Technology Fair & Congress**

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(Enclosure No. 1 to Division Memorandum No. \_\_\_\_ s. 2017)

## **GUIDELINES FOR THE 2017 DIVISION SCIENCE AND TECHNOLOGY FAIR & CONGRESS (DSTFC)**

### **A. THE SCIENCE FAIR AND CONGRESS**

The Curriculum and Implementation Division of the City Division of Tayabas City shall conduct the 2017 Division Science and Technology Fair & Congress on October 3-4, 2017 at Dapdap Integrated School, Tayabas City. The DSTFC as a curricular program intervention of the division aims to promote science and technology consciousness among the youth, identify the most creative and best science researches to represent the city division in the regional level and to strengthen the skills and content of teachers in research and pedagogy.

### **B. THE COMPETITION**

All contests are open to public and private elementary and secondary schools of the City Schools Division of Tayabas. Schools are enjoined to conduct school level competition to select the participants that will compete in the 2017 DSTFC.

### **C. CONTESTS / COMPETITIONS**

CONTEST	CATEGORY / GRADE LEVEL	Maximum No. of participant/s	Total
<b>Investigatory Project</b>	Learners Category / Secondary	3 (Life Science & Physical Science – Team)	6
		1 (LS & PS – Individual)	2
	Learners Category / Elementary	2 (Life & PS –Team) )	4
		1 (Life & PS – Individual)	2
<b>Quiz Bee</b>	Learners Category / Elementary (one /grade level – Grade 3-6)	1	4
	Learners Category / Secondary (one /grade level – Grade 7-10)	1	4
<b>Science Mind Map</b>	Learners Category /Elementary (Grade 5)	1	1
<b>Science Videos</b>	Teachers Category / Elementary (Grade 3)	1	1
<b>Infographics</b>	Teachers Category / Elementary (Grade 4)	1	1
<b>Innovative</b>	Teachers Category/ Secondary	1	1

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IM's	(Grade 8)		
Photo Gallery	Teachers Category / Secondary (Grades 9 and 10)	1	2

**Note :** Registration of participants is on or before September 21, 2017. Online registration form ( in EXCEL Form) will be posted on Science Teachers FB group - TASSCoor

#### **D. MECHANICS OF THE DIFFERENT CONTESTS**

##### **1. SCIENCE INVESTIGATORY PROJECTS**

1.a The conduct of the school / division level Science and Technology Fair and Congress shall be done in conformity with DepED Order No. 9 s. 2015. The school and division level STFC shall follow the mechanics and guides in implementing the contest for elementary and secondary levels.

1.b The first place winners at the school level in both clusters shall have been properly scrutinized by identified members of the Science Research Committee at the school level. No project will be accepted in the DSTFC if it is not being supervised by a qualified scientist or supervising adult whose research activities, testing and investigations are not conducted in any research institution, standard laboratory or industry.

1.c The official list of first place winners at the school level, report on the conduct of S & T Fair and printed copies of manuscripts shall be officially endorsed by the School Head to the Division Office through the CID.

1.d The participation of the schools in the DSTFC shall be clustered into two types: Life Science and Physical Science.

1.e The research project should cover a maximum of twelve continuous months or 1 year or if it is a continuing project, a research progression project form (Form7) shall be accomplished.

1.f Scientific fraud and misconduct is not condoned at any level of competitions or research. Plagiarism, use or presentation of other research works as ones own and fabrication of data will not be tolerated.

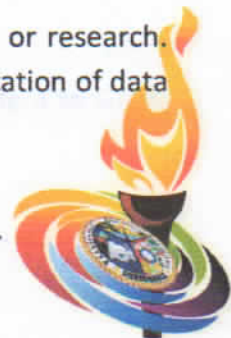
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- 1.g The project display shall use sets of any paper board that summarizes the research project and shall focus on the proponents work for current year. Use of tarpaulin for the display is discouraged. Safety regulations in the entire duration of the event must adhere to the guidelines of ISEF. Copy of the required forms, copy of the research write up, project data book and 6 slide power point presentation showing salient features of the project must be prepared and presented by the proponent to the BOJ.
- 1.h The format and flow of activities of the division congress and fair shall follow the national and international science fair or the NSTF and ISTF.
- 1.i The decision of the judges is final and irrevocable. No queries will be entertained during or after awarding ceremony.
- 1.j The project display must use sets of any board paper that presents the Abstract, Objectives, Significance, Methodology, Results and Discussion and must follow the required size of 152 cm x 101 cm (width x length)
- 1.k The format shall follow the following parts:
- 1.k.1 Research Plan
  - 1.k.2 Project Data Book
  - 1.k.3 Research Paper
    - Title Page
    - Table of Contents
    - Introduction
    - Materials & Methods
    - Results and Discussions
    - Conclusions & Recommendations
    - Bibliography
- 1.l All are directed to download the soft copies of the international rules at <https://member.society.org/document.do?id+746> for specific instructions and detailed procedure.

## 2. QUIZ BEE FOR LEARNERS

- 2.1 The Science Quiz Bee is an oral and written individual contest from Grade 3 to Grade 10 that covers all the strands of the K-12 Curriculum – Science.

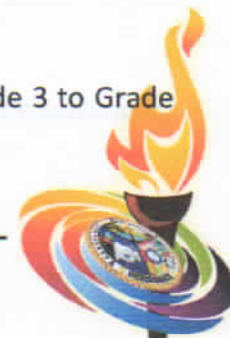
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2.2 The quiz bee will use English for Grade 4 – 10 and Filipino for Grade 3 as medium to deliver the contest.

2.3 The competition is divided into two parts : Written and Oral Competition. The written test is composed of 30 items good for 30 minutes. The Oral Test is composed of 5 items for each of the 3 rounds, Easy, Average and Difficult. Only those scored 22 and above will qualify in the Orals ( final round).

2.4 All questions in the written competition will be given 2 points each.

2.5 Questions in the written test are in multiple choice or open ended type of test while in the oral test, it is an open ended type.

2.6 In case of a tie, a tie breaking question will be given for three points each for the correct answer. The scores will be added to the score of the competing contestant who are only included in the orals to determine the winner.

2.7 All answers must be spelled correctly to be considered correct. Use of calculators is not allowed.

2.8 Answers that require units must be complete. No units of measurement will not be considered as a correct answer.

2.9 Teachers, coaches and parents shall be seated and be accommodated in one room away from the contest venue.

### **3. SCIENCE VIDEOS IN MTB – MLE**

3.1 A science video is a digital video or contextualized educational video material for a topic which uses various format e.g., it can be a video of a teacher speaking to a camera with a mixture of photographs and text about a topic, a production or any format to present fully and clearly the content of the video that can be used in any part of the lesson to substantiate , enrich or deepen the discussion of the lesson or topic.

3.2 The video should run for a maximum of 4 minutes that may focus on any of the contents of Grade 3 Science Curriculum.

3.3 Videos should be original and not have been submitted to any video contest in the country.

3.4 Aside from the title screen, it must have short introductions telling the competencies, key ideas and the quarter where the video belongs.

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3.5 The video shall be mp4 format and shall have at least 720p resolution, 25 frame rate (1280 x 720).

3.6 Music and text used in the video shall be acknowledged at the end of the video.

3.7 All information presented in the video must be cited giving credit to the original source.

3.8 Each video must have lead producer which is the teacher contestant.

3.9 Contents of the video must be aligned to the K to 12 curriculum in Science Grade 3 and appropriate to different types of learners.

#### **4. SCIENCE INFOGRAPHICS**

4.1 A science infographic is a visual representation of a content / subject that combines many type of data, processes, photographs, icons, symbols and illustrations into easy to understand designs and lay out used to boost learning and understanding of such content / subject. It is a data rich visualization of content used to educate, inform and enhance the human visual systems ability to see pattern and trends of a complex idea or subject.

4.2 Contestant is expected to be at the venue 5 minutes before the contest proper with his pen and paper for the preparation of his/ her draft.

4.3 Proctor will pick a piece of paper that contains the topic or subject on which the contestants will prepare an infographic.

4.4 The contestant upon the announcement of the proctor will be given ten minutes to draw on a piece of bond paper his plan and lay out for the infographics. After the given time, proctor will collect the draft of the infographics from the contestants.

4.5 Proctor will assign each contestant a computer or laptop to improve the draft. The design and development of the infographics using computer will last for 30 minutes. All infographics must have one paragraph description / explanation written on a separate sheet.

4.6 Contestants are not allowed to use available software or any on line infographic maker nor download the same for use during the contest.

#### **5. SCIENCE MINDMAPS**

5.1 A mind map is a form of graphic organizer or diagram that connects information around a central idea. It shows relationships among pieces of the whole created around a single concept drawn as an image in the center of the map to which associated representations of

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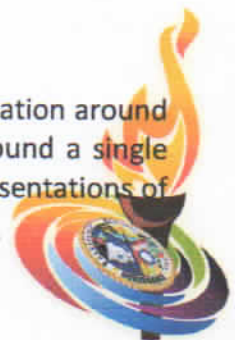
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ideas such as images, words and symbols are added. Usually, major ideas are connected directly to the central concept and other related or specific ideas branch out from those.

5.2 Contestant is expected to be at the venue five minutes before the contest proper with his pen, crayola or coloring pen and paper for the preparation of his / her content piece.

5.3 Proctor will check the attendance of the contestants and pick a piece of paper that contains the topic or subject on which the contestant will prepare a mind map.

5.4 The contestant upon hearing from the proctor the topic / subject matter, as the contest focus will be given 40 minutes to design, develop and create the mind map using the official contest material. (DO official paper for mind map)

5.5 Contestants are not allowed to use a computer or laptop to prepare his or her entry.

## 6. PHOTO GALLERY

6.1 A photo gallery is 30 cm by 24 cm (½ cartolina size) original photo containing 1 to 3 images / shots presenting the concepts and ideas of a certain competency in science in any context. It is a piece of work unfolding the core content and ideas of a certain competency captured vividly through various images using the visual and artistic skill of teacher-photographer.

### Competency for Grade 9

***Biodiversity and Evolution : Relate species extinction to the failure of populations of organisms to adapt to abrupt changes in the environment.***

### Competency for Grade 10

***Light : Identify ways in which properties of mirrors and lenses determine their uses in optical Instrument***

6.2 All entries shall bear its metadata (boxed) written on the lower right corner of the page. This serves as the caption of the photos.

- Location / Situation / Context
- Materials
- Competency / Code as per CG
- Detailed caption of the subject matter / Message / Content ( 3 liners)

6.3 The following are ineligible:

- Images of captive animals photographed in zoos and sanctuary





- Photos that violate or infringe upon another persons right
- Photos that are violent or objectionable or with in appropriate content
- Photos that involve willful harassment of the biodiversity or to the environment
- Teachers who are contestants in the photojournalism contest in the division /region
- Teachers who are not teaching science

6.4 All contestants will submit the entries in the contest venue.

6.5 Manipulation of photos, cropping, straightening of photos and color manipulations are allowed.

6.6 All submitted entries in the DSTFC are considered property of the City Division of Tayabas –CID.

### CRITERIA OF THE DIFFERENT CONTESTS

#### 1. Investigatory Projects

Contestants	Elementary / Secondary Learners	
Requirements	Research Plan, Project Data Book, Research Paper, Abstract and Forms	
Format	ISEF / I Sweep Rules	
Criteria	Evidence of Research Plan/ Literature Search	20%
	Science and Engineering Goals / Logical Investigations	20%
	Originality / Use of Appropriate Techniques	15%
	Adherence to Research Ethics	10%
	Positive Outcomes / Results	25%
	Interview	10%

#### 2. Quiz Bee

Contestants	Elementary and Secondary Learners and Teachers
Requirements	Oral and Written Test ( Individual
Criteria	Criteria indicated in the guidelines

#### 3. Science Mind Map

Contestants	Elementary Learners	
Requirements	Crayons, pen, pencil or coloring pen	
Format	Open format	
Criteria	Data density	45%
	Appropriateness and Readability	20%
	Presentation & Style	20%
	Style / Uniqueness	15%

#### 4. Science Infographics

Contestants	Elementary Teachers ( Grade 4)
Requirements	Pen and Paper

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Republic of the Philippines  
Department of Education  
Region 4-A CALABARZON  
Province of Quezon  
**CITY SCHOOLS DIVISION**  
City of Tayabas



Format	Open format	
Criteria	Proper Attribution of Information	30%
	Typography and Creative Details	20%
	Design Trends / Uniqueness	20%
	Readability, Data Accuracy and Value	30%

**5. Science Videos Using MTB-MLE**

Contestants	Elementary School Teacher ( Grade 3)	
Requirements	Digital video in CD ( 2 copies)	
Format	Mp4 format , 720 resolution, 25 frame rate running time: 5-6 minutes	
Criteria	Clarity, completeness and continuity of ideas	25%
	Logical presentation of concepts and ideas	25%
	Graphics / Use of appropriate materials / music	30%
	Audio Video Editing / Copyright	20%

**6. Science Photo Gallery**

Contestants	Secondary Teachers ( Grade 9 and 10)	
Requirements	As indicated in the Guidelines	
Format	Open format	
Criteria	Originality / Uniqueness	30%
	Technical Excellence / Clarity / Quality of Color	15%
	Composition	10%
	Artistic Merit / Visual Design	20%
	Overall Impact & Alignment to the Content	25%

**7. Innovative Instructional Materials**

Contestants	Secondary School Teacher ( Grade 8)	
Format	No format	
Criteria	Evidence of Project Plan	15 %
	Uniqueness & Skills Involved	30%
	Adaptability, Usability and Efficiency	30%
	Interview / Positive Results	15%

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