



Republic of the Philippines
Department of Education
Region XI
SCHOOLS DIVISION OF DIGOS CITY
Digos City



October 15, 2019

Division Memorandum
No. 910 s. 2019

Participation to the 2019 Regional Science and Technology Fair

**To: Public Schools District Supervisors
School Principals/School Heads/Officers-in-Charge
Public Elementary and Secondary Schools**

1. In reference to an Unnumbered Regional Memorandum dated October 8, 2019, the field is informed of the conduct of the 2019 Regional Science and Technology Fair (RSTF) on November 29-30, 2019 at the Lyceum of the Philippines-Davao, Sun City Road, Buhangin, Davao City.
2. The RSTF aims to promote Science and Technology consciousness and a culture of innovation among the youth. Further, it aims to identify the most creative and innovative student researchers from the Junior and Senior High School who will represent the region in the National Science and Technology Fair on February 10-14, 2020 at a venue to be announced later.
3. The official participants to the RSTF are the first and second place winners in the Division Science and Technology Fair in each of the different categories whose projects have been approved by the Regional Scientific Review Committee (RSRC). Approved entries shall be notified through a memorandum.
4. Participants are advised to pre-register online at <http://tiny.cc/RSTF2019XI> on or before November 15, 2019. Participants are also encouraged to wear corporate business attire during the competition proper.
5. In addition, the following comprise the Official Party members who shall participate in the said event:
 - a. Schools Division Superintendent
 - b. Assistant Schools Division Superintendent
 - c. Chief, Curriculum Implementation Division
 - d. Education Program Supervisor in Science
 - e. Special Science Elementary School (SSES) Principal and Coordinator
 - f. Science, Technology and Engineering (STE) Principal and Coordinator
 - g. Other Research Advisers (Maximum of 3)
6. Relative to the said activity, all concerned participants are advised to observe the following schedule:

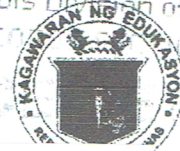
Activities	Date	Person-in-Charge
Submission of the top two (2) entries per category	November 15, 2019	Dr. Maria Liza I. Berandoy, CLMD Office
Review of entries per category	November 18-20, 2019	RSRC
Notification of Approved Manuscripts	November 21, 2019	Dr. Maria Liza I. Berandoy, CLMD Office
Distribution of Approved	November 22, 2019	RSRC Chair

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📠 553-8396/553-8376 🌐 www.depeddigoscity.org ✉ digos.city@deped.gov.ph



Republic of the Philippines
DEPARTMENT OF EDUCATION
REGION XI
Davao City

DepEd Schools Division of Digos City



Address: F. Torres St., Davao City (8000)
Contact Telefax Numbers: (082) 291-1665/(082) 221-6147

DATE: _____ TIME: _____

BY: Email: region11@deped.gov.ph
Website: www.depedregion11.ph

MEMORANDUM

To : Schools Division Superintendents
Chief, Curriculum and Learning Management Division

Subject: 2019 REGIONAL SCIENCE AND
TECHNOLOGY FAIR

Date : October 8, 2019

DepEd Schools Division of Digos City
RECORDS SECTION



RECEIVED

DATE: 11 OCT 2019 TIME: 4:14 PM
BY: *[Signature]*

In pursuance to the DepEd Memorandum No. 113, s. 2019 entitled "National Science and Technology Fair (NSTF) for School Year (SY) 2019-2020," this Office announces the conduct of the 2019 Regional Science and Technology Fair (RSTF) on November 29 - 30, 2019 at the Lyceum of the Philippines - Davao, Sun City Road, Buhangin, Davao City.

The RSTF aims to promote Science and Technology consciousness and a culture of innovation among the youth. The RSTF also aims to identify the most creative and innovative student researchers from the Junior and Senior High School who shall represent the region in the National Science and Technology Fair on February 10 - 14, 2020 at a venue to be announced later.

The official participants from each School Division Offices (SDOs) to the RSTF shall only be the **first and second place winners** (Individual and Team) in each of the different categories. Participants are encouraged to wear **Corporate Business Attire**. All entries must have been approved by the Regional Scientific Review Committee (RSRC). Approved entries will be notified through their respective SDOs. Entries which are not approved by the RSRC shall not proceed to the RSTF 2019. Participants are advised to be pre-registered at <http://tiny.cc/RSTF2019XI> on or before November 15, 2019. However, the maximum number of official delegates may vary per division depending on the number of approved entries. **Substitutes shall not be allowed.** The description and maximum number of official participants are the following:

Description of Official Participants per SDO	Maximum Number of Participants
Life Science Category	8
Physical Science Category	8
Robotics and Intelligent Machines Category	8
Science Innovation Expo	8
Adviser/Coach	16
TOTAL	48

Empowerment Adaptability Goal-oriented Leadership Excellence

Document Number : ROXI-114
Version Number : 2.0
Revision Number : 0
Date of Effectivity : July 15, 2019





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REGION XI
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Email: region11@deped.gov.ph
Website: www.depedroxi.ph

The number of other Official Party members are as follows:

Maximum Number of Other Official Party per SDO	
Schools Division Superintendent	1
Assistant Schools Division Superintendent	1
Chief, Curriculum Implementation Division	1
Education Program Supervisor - Science	1
Special Science Elementary School (SSES) Coordinator	1
Science, Technology and Engineering (STE) Coordinator	1
Regional Science High School (RSHS) Principal	1
SSES Principal	1
STE Principal	1
Other Research Advisers	3

Relative to the said activity, all concerned participants are advised to observe the following schedules:

Activities	Date	Person In-charge
Submission of the top two (2) entries per category and per division	November 15, 2019	• Dr. Maria Liza I. Berandoy CLMD Office
Review of entries per category	November 18 - 20, 2019	• RSRC
Notification of Approved Manuscripts	November 21, 2019	• Dr. Maria Liza I. Berandoy CLMD Office
Distribution of Approved Manuscripts to Judges	November 22, 2019	• RSRC Chair
Pre-judging of the approved manuscripts	November 25 - 28, 2019	• BOJ
• Arrival of Participants • RSTF Orientation	November 29, 2019 (Morning)	• RSRC • Secretariat
• Preparation of Yells per SDO • On-the-spot Poster-Making ^b per SDO • Mounting of Exhibits/Display Boards	November 29, 2019 (Afternoon)	• RSRC

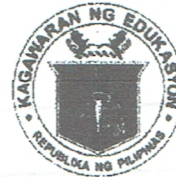
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Contest Proper
Final Judging of Entries

November 30, 2019

- BOJ
- RSRC
- Secretariat

^aNote: Failure to submit SIP Manuscripts on time shall be a ground for disqualification of the Division in the RSTF.

^bUse of one-half (1/2) Illustration Board; Oil Pastel as painting medium ONLY.

Food of the RSRC and Board of Judges shall be charged to Regional HRTD Funds, while the rest of the participants shall charge the same and their travels to local Funds/MOOE and other sources of Funds including the travel of the RSRC, all subject to the usual accounting and auditing rules and regulations.

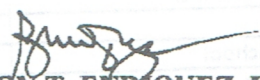
The subsidy to cover the payment for honoraria of the members of the BOJ relative to the conduct of the RSTF shall be charged to the Bureau of Curriculum Development (BCD) downloaded funds.

Attached are the enclosures for reference on the conduct of the RSTF/NSTF competition and the composition of the members of the regional level SRC.

Participants are entitled to service credits or compensatory time-off (CTO) for services rendered during Saturdays, Sundays, and holidays. Said privileges are in accordance with DepEd Order No. 53, s. 2003 on Updated Guidelines on Grant of vacation Service Credits to Teachers and Civil Service Circular No. 2, s. 2004 on Non-Monetary Remuneration for Overtime Service Rendered.

Immediate and wide dissemination of this Memorandum is earnestly desired.

By authority of the Regional Director:


ROY T. ENRIQUEZ, Ed.D.
Chief Administrative Officer
Office-In-Charge

Enclosed: As Stated

ROC2/mlib

DEPARTMENT OF EDUCATION
REGION XI
ADMINISTRATIVE SECTION
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BY: 

DATE: 10/11/19 TIME: 3:50 PM
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Empowerment Adaptability Goal-oriented Leadership Excellence

Document Number : ROXI-114
Version Number : 2.0
Revision Number : 0
Date of Effectivity : July 15, 2019





Republic of the Philippines
Department of Education

05 SEP 2019

DepEd MEMORANDUM

No. **113**, s. 2019

NATIONAL SCIENCE AND TECHNOLOGY FAIR FOR SCHOOL YEAR 2019-2020

To: Undersecretaries
Assistant Secretaries
Bureau and Service Directors
Regional Directors
Schools Division Superintendents
Public and Private Secondary School Heads
All Others Concerned

1. The Department of Education (DepEd), through the Bureau of Curriculum Development (BCD) announces the conduct of the **National Science and Technology Fair (NSTF) for School Year (SY) 2019-2020** from February 10 to 14, 2020 at a venue to be announced in a later date. The conduct of the school, division, and regional Science and Technology Fair (STF) shall be held on the following dates:

Level	Date
School	September 2019
Division	October 2019
Regional	November 2019

2. The STF aims to promote Science and Technology consciousness and a culture of innovation among the youth. The NSTF also aims to identify the most creative and innovative student researchers from the Junior and Senior High School who shall represent the country in the international Science research fairs. *sh*

3. In addition to the usual research competition, the **NSTF-Science Academy** shall be held to give the participants opportunity for learning and development through attendance in various talks designed to promote innovation, creativity and excellence in science and research. The Academy Speakers will be selected based from the criteria listed in Enclosure No. 4.

4. The **official participants** from each region at the national level National Science and Technology Fair shall only be the **Rank 1 Regional Winners** in each of the different categories whose entries have been **approved by the National Level Scientific Review Committee (SRC)**. Substitutes shall not be allowed. The description and maximum number of official participants are the following:

Maximum Number of Student Participants per Region	
Life Science Category (4)	
Individual	1
Team	3
Physical Science Category (4)	
Individual	1
Team	3

Robotics and Intelligent Machines Category (4)	
Individual	1
Team	3
Science Innovation Expo (4)*	
Individual	
Team	4*
TOTAL	16*

*Maximum of 2 individual projects or one individual and a team project.

5. The number of other Official Party members are as follows:

Maximum Number of Other Official Party per Region	
Regional Director	1
Assistant Regional Director	1
Regional EPS-Science	1
Regional EPS-Math	1
Chief Education Program Supervisor-CLMD	1
Research Advisers (Qualified Projects)	2
Observers (one for every six student finalists)	2*

*Observer slots may be given to the research adviser/s of the student finalist/s or Division Math/Science Education Program Supervisors.

6. The travel expenses and other incidental expenses of the participants in the national level STF shall be charged to local funds or other sources; whereas, the expenses of the BCD staff, board and lodging of official party, materials, transportation and communication relative to the activities, prizes and cash awards, and honoraria of members of the SRC, Board of Judges (BOJs) and external or non-DepEd resource persons shall be charged to the BCD Fund, subject to the usual accounting and auditing rules and regulations.

7. The following documents are enclosed for information and guidance of all concerned:

- Enclosure No. 1 - Guidelines on the National STF 2019-2020,
- Enclosure No. 2 - Schematic Diagram on the Flow of STF Activities,
- Enclosure No. 3 - 2019-2020 Calendar of Important STF Activities and Requirements,
- Enclosure No. 4 - Submission of Interested Science Academy Speakers,
- Enclosure No. 5 - Science Academy Symposium Presenter Application Form,
- Enclosure No. 6 - Format of Research Paper,
- Enclosure No. 7 - Format of Invention Report Paper,
- Enclosure No. 8 - Format of Display Board for the Innovation Expo,
- Enclosure No. 9 - Science Innovation Expo - Process Flow,
- Enclosure No. 10 - Data Submission to BCD by Regional Coordinators,
- Enclosure No. 11 - Updated Checkpoints for SRC Review,
- Enclosure No. 12 - SRC Review and Recommendation Report, and
- Enclosure No. 13 - BOJ Project Evaluation Form.

8. Further, Regional Coordinators (RCs), Division Science and Math Supervisors, School Heads, and Participants are expected to download softcopies of the International Rules for Pre-college Science Research: Guidelines for Science and Engineering Fairs 2019-2020 from: <https://sspcdn.blob.core.windows.net/files/Documents/SEP/ISEF/2020/Rules/Book.pdf> and the fillable forms from: <https://sspcdn.blob.core.windows.net/files/Documents/SEP/ISEF/2020/Forms/All.pdf>.

9. The registration fee for each participant is as follows:

Level	Participant	Registration Fee
Division	• Students with entries • Research advisers • Supervisors in Science and Mathematics	P2,500
Regional	• Students with entries • Research advisers • Supervisors in Science and Mathematics	P5,000
National	• Research advisers* • Observers*	P7,500

*beyond the number of allowed official party

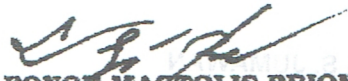
10. Registration fees shall be charged to local funds, subject to the usual accounting and auditing rules and regulations. This fee will cover board and lodging of the other members of the regional delegation. The subsidy to cover the payment for honoraria of the members of the SRC and BOJ relative to the conduct of Regional STF shall be downloaded to the regions.

11. The RCs are requested to submit to BCD, through email at nstf@deped.gov.ph, the reports using the format provided in Enclosure No. 5 on or before **December 6, 2019**. Failure to submit the report and projects on time shall **disqualify** the region in the national fair.

12. All other activities relative to Science, Technology, Engineering and Mathematics research projects including those of the private associations shall be harmonized with the activities of the NSTF from **February 10 to 14, 2020**. Furthermore, it is also strongly encouraged that the school level STF be participated by all students even those coming from other special interests programs.

13. For more information, please contact **Ms. Anna Liza M. Chan**, Senior Education Program Specialist, Bureau of Curriculum Development-Curriculum Standards Development Division, 3rd Floor Bonifacio Building, Department of Education Central Office, DepEd Complex, Meralco Avenue, Pasig City through email at nstf@deped.gov.ph or at telephone nos. (02) 632-7746 and (02) 635-9822.

14. Immediate dissemination of this Memorandum is desired.


LEONOR MAGTOLIS BRIONES
Secretary

Format of Research Paper

Investigatory papers that were reviewed by the national SRCs in the past years were found to have inadequacies in the content, particularly in the areas cited below. To ensure that the investigatory papers are of good quality, students must adhere to the guidelines shown below. These can be found in the Guidelines and in the Student Handbook and Research Plan Instructions published in the website (<https://www.societyforscience.org>).

- I. **Research Plan:** (This is compiled separately from the rest of the investigatory paper):
All projects should include the following:

- A. Question or Problem being addressed
- B. Goals /Expected Outcomes /Hypotheses
- C. Description in detail of method or procedures (The following are important and key items that should be included when formulating ANY AND ALL research plans.)
 - Procedures: Detail all procedures and experimental design to be used for data collection.
 - Data Analysis: Describe the procedures to be used to analyze the data/results that answer research questions or hypotheses.
- D. Bibliography: List at least five (5) major references (e.g. science journal articles, books, internet sites) from your literature review. If you plan to use vertebrate animals, one of these references must be an animal care reference.

II. **Project Data Book:**

A project data book is your most treasured piece of work. Accurate and detailed notes make a logical and winning project. Good notes show consistency and thoroughness to the judges and will help you when writing your research paper. Data tables are also helpful. They may be a little 'messy' but be sure the quantitative data recorded is accurate and that units are included in the data tables. Make sure you date each entry.

III. **Abstract:**

The abstract should be **250 words or less**. Do not discuss specific aspects of the research in great detail, including experimental procedures and statistical methods. Any information that is unnecessary to include in a brief explanation should be saved for the written research paper or the project exhibit board.

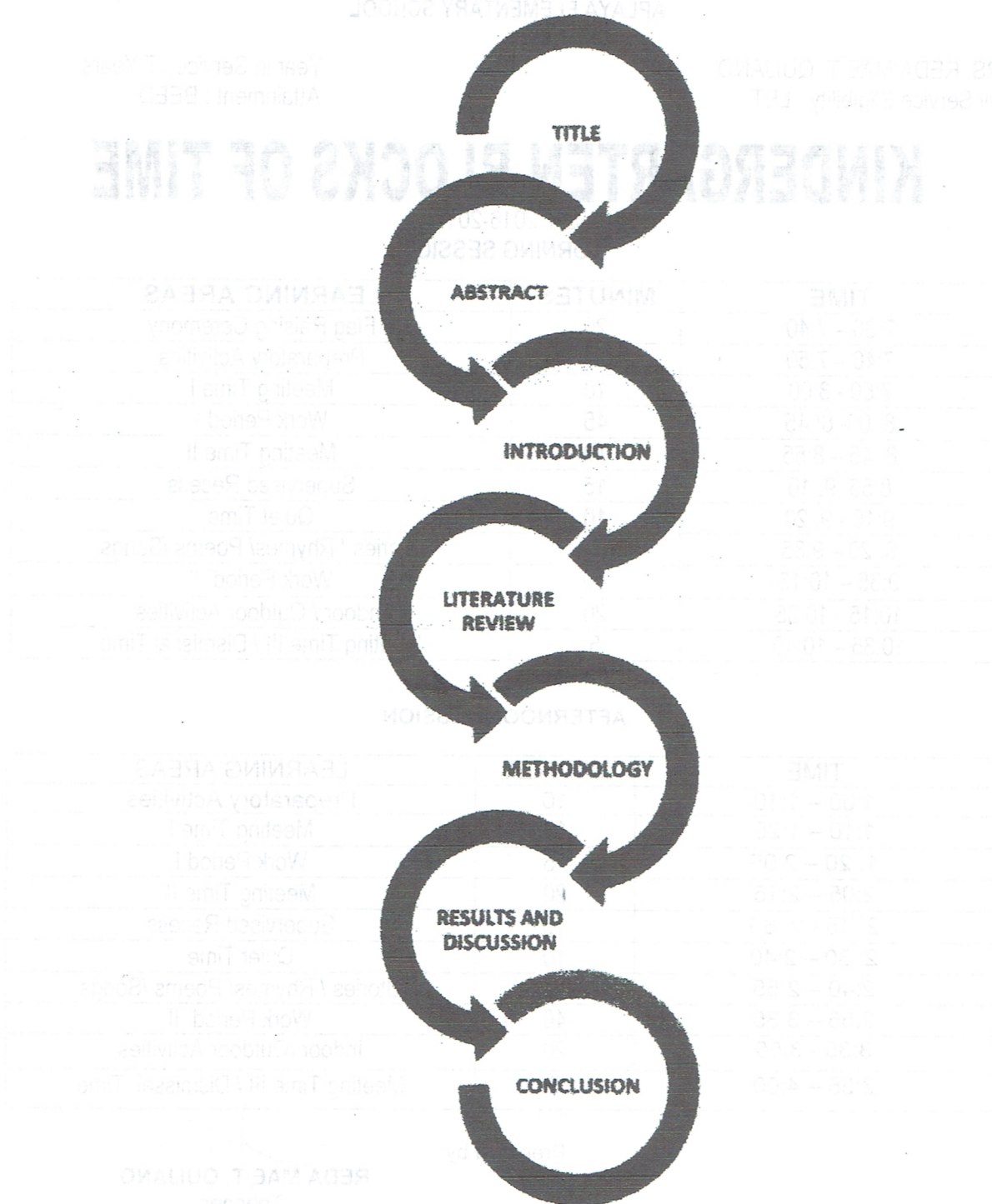
If the project is a continuation from a previous year, the abstract should summarize the current year's work only. If mention of supporting research from previous year(s) is necessary, it must be minimal.

If the abstract text includes special characters, such as mathematical symbols, which won't be translated electronically, please spell out the symbol.

Do not include acknowledgements in the abstract. This includes any references to mentors, institutional facilities, and awards or patents received.

IV. Research Paper:

A research paper should be prepared and available along with the project data book and any necessary forms or relevant written materials. A research paper helps organize data as well as thoughts. A good paper includes the following sections.



Source: DepEd Memorandum No. 113, s. 2019

FORMAT OF RESEARCH EXHIBIT

meter 2.5 meter	Project Title	
	Abstract	
	Background	Results and Discussion
	Objectives	
	Significance	Conclusion
	Methodology	Recommendation
		Bibliography
Photo Credits		

Format of Paper Invention Report

Invention Report Paper:

- a) **Title Page and Table of Contents:** The title page and table of contents allows the reader to follow the organization of the paper quickly.
- b) **Introduction:**
- 1) **Features and Specifications** – This describes the details of your invention.
 - 2) **Market Trends and Opportunities** – This part of the report must include three items: what inspired you to develop this invention, an explanation of what problem your invention will solve, and describe in detail how you determined that the invention that you created did not already exist. Explain what products are already on the market that are somewhat like your invention and describe how yours differs.
- c) **Materials and Methods:** Describe in detail how you made your invention. Explain what materials were used and how you put them together to make your invention. Your report should be detailed enough so that someone would be able to repeat the steps and make your invention. Directions on how to use the invention are also necessary here. You must include a detailed drawing(s) of your invention.
- d) **Results and Discussion:** This is the essence of your paper. Compare your results with theoretical values, published data, literature and related studies, commonly held beliefs, and/or expected results. Include a discussion of possible errors, statistics, graphs, pages with your raw collected data, etc. How did the data vary between repeated observations of similar events? How were your results affected by uncontrolled events? What would you do differently if you repeated this project? What other experiments should be conducted?
- f) **Conclusions:** This discusses the potential applications, possible customer benefits, and the impact of the problem in solving problems and issues of today and tomorrow.
- g) **Acknowledgements:** You should always credit those who have assisted you, including individuals, businesses and educational or research institutions.
- h) **References/Bibliography:** Your reference list should be written based on the Chicago Manual of Style. For more information, you may visit the websites below:

- <http://www.chicagomanualofstyle.org/home.html>
- <http://www.calvin.edu/library/knightcite/index.php>

For more information about this event please contact Ms. Anna Liza Chan at annaliza.chan@deped.gov.ph for details.

Format of Display Board for the Innovation Expo

6.1 Sample Format of Display Board for Science Innovation Expo

Title	The title should be short but would capture the essence of the product/invention
Picture	picture of the product/invention only
Overview	What problem is solved by the invention? What are the existing solutions and what limitations do these solutions have?
Key Features	What are the novelty features of this invention?
Benefits and Impact	What are the benefits/impact of this invention to humans?
Developers' Name	Who is/are the inventors?

Specifications:

Each Display Board must have a 38" x 48" dimensions (portrait style)

Judging Criteria:

The following **criteria** are used to evaluate each project:

- (a) *Originality & Innovation*..... (30 %)
- (b) *Community Connection & Impact*.....(25 %)
- (c) *Functionality and Quality*.....(25%)
- (d) *Utilization of Patent Information*.....(20%)

The following are the **members of the evaluation panel** in each level:

A group eight or more judges composed of the ff. listed below shall be members of the evaluation panel who will select the qualified winners in each level:

- (a) patent experts
- (b) industry experts
- (c) business experts
- (d) business professionals
- (e) scientists
- (f) field experts
- (g) regional/division supervisors

LIST OF THE MEMBERS OF THE REGIONAL SCIENTIFIC REVIEW COMMITTEE

Category - Physical Science	School
Chair: Jamaico C. Magayo	Davao City NHS
Members:	
1. Honey Lynne A. Boyles, Ed.D	Tagum City NHS
2. Ivy F. Solano	Matanao NHS
3. Jim Boy P. Pasia	Daniel R. Aguinaldo NHS, Davao City
Category - Life Science	
Chair: Suzette A. Bermejo	Daniel R. Aguinaldo NHS, Davao City
Members:	
1. Joan Calamba	Davao City NHS, Davao City
2. Phoebe Romuga	Davao City NHS, Davao City
3. Brylee A. Cadigal	Teofilo V. Fernandez NHS, Davao City
Category - Robotics and Intelligent Machines	
Chair: Reiner Cagurol	Pablo Lorenzo NHS, Davao City
Members:	
1. Ritchie Liguid	Maragusan Annex NHS, ComVal
2. Rogar R. Garcia	F. B Daniel R. Aguinaldo NHS, Davao City
3. Napdeo Natka E. Natad	City angoy NHS, Davao City
Category - Innovation Expo	
Chair: Cherry Ann D. Into	Cabantian NHS, Davao City
Members:	
1. Chuchie Yog	Mabini NHS, ComVal
2. Emmanuel B. Clarion	Maragusan NHS, ComVal
3. Darly Lamentac	Magallanes ES, Davao City
4. Gene Carbon	Sta. Ana ES, Davao City

Prepared by:


MARIA LIZA I. BERANDOY, Ed.D.
 EPS, CLMD