



Republic of the Philippines
DEPARTMENT OF EDUCATION
Region III

SCHOOLS DIVISION OF NUEVA ECIIJA

Old Capitol Compound, Burgos Avenue, Cabanatuan City 3100



September 24, 2015

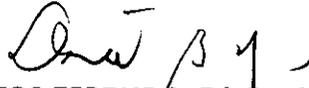
DIVISION MEMORANDUM

No. 140, s. 2015

2015 DIVISION SCIENCE AND TECHNOLOGY FAIR (DSTF)

To: **Secondary School Heads/Principal**
Heads of Private & Public Schools and Colleges
Vocational School Administrators/Principals

1. This is to announce that the 2015 Division Science and Technology Fair (DSTF) shall be held on October 14-15, 2015 at Peñaranda National High School, Peñaranda, Nueva Ecija.
2. The activity is a series of Science Quizzes, Pinoy Robot Games, and Science Fair Contests.
3. The theme for this year's Science Fair is "Environmental Protection and Conservation of the Ecosystem".
4. The activity aims to:
 - 1.1 Encourage research and development among secondary students.
 - 1.2 Undertake scientific activities that will develop the youth's analytical mind, resourcefulness and creativity;
 - 1.3 Apply science, technology concepts and principles;
 - 1.4 Promote science and technology concepts consciousness among the youth;
 - 1.5 Foster wholesome atmosphere of competitiveness and excellence in undertaking scientific activities towards achieving breakthroughs in research, and;
 - 1.6 Identify the most creative and the best science student researchers who will represent the Division in various science research competitions.
5. The participants in these activities are the 1st place winners (CHAMPION) in the school level competition. No registration fee shall be charged to the participants. However, they are requested to bring their own provisions.
6. Expenses incident to this activity shall be charged to local science/ school funds subject to the usual accounting and auditing rules and regulations.
7. Enclosures No 1, 2, and 3 are the Program of Activities, List of Facilitators and Guidelines of the Contests respectively.
8. Wide dissemination of the content of this Memorandum is requested to ensure full participation of all concerned.


EDNA SANTOS-ZERRUDO, Ed. D., CESO V
Schools Division Superintendent

Inclosure No. 1 to Division Memorandum No. __, s. 2015

2015 DIVISION SCIENCE AND TECHNOLOGY FAIR (DSTF)

October 14-15, 2015

Peñaranda National High School, Peñaranda, Nueva Ecija

OCTOBER 14, 2015

PM

Registration of Participants

Setting-up of Investigatory Projects

October 15, 2015

AM

8:00-9:00 OPENING PROGRAM

9:00 AM ONWARDS

Contest proper (Simultaneous)

SCIENCE QUIZ

Grades 7

Grade 8

Grade 9

Grade 10

PINOY ROBOT GAMES

Pinoy Robot Game aims to promote the use of technology in learning and aids in the development and application of both basic and integrated science process skills as applied in the real life settings. The participants are given opportunities to apply and further develop various skills such as information, technology, innovation and critical thinking skills as applied to the designing, creating and programming of their self-made robots. The event supports DepEd in achieving its K-12 target to produce holistically develop Filipino learners with 21st century skills.

The competition is divided into different categories such as

• **Sumobot**

This category enables the participants to design a robot that will locate and knock its opponent right out of the ring while detecting the outside circle should an escape move be necessary.

• **Line Tracingbot**

This category aims to create robot that be able to detect particular line and keep following it.

• **Fire Fighting Robot (Autonomous)**

This is a robotics game where a robot must autonomously navigate through a mock home with multiple rooms and with a candle randomly placed in one of the rooms, simulating a house on fire. The robot needs to find the candle and put it out, paving the way for a house-hold robot which would find and extinguish small home fires before they can engulf the house. The main challenge of this contest is to build an autonomous computer-controlled robot that can find its way through an arena that represents a model house, find a lit candle that represents a fire in the house, and extinguish the fire in the shortest time. This task simulates the real-world operation of an autonomous robot performing a fire protection function in a real house. The goal of the contest is to advance robot technology and knowledge while using robotics as an educational tool.

• **Innovative Robot (Remote Control / Autonomous)**

The innovative robot category is one that allows teams to innovate, design and build their robots according to the current year THEME. A sample is Saving the Rivers where teams are to create innovative robot designs to be able to clean, clear, or even recycle the waste that is causing the pollution in our rivers today. There are no strict rules for this category but mainly the judging criteria for the robots. A special panel of judges expert in the topic will be selected by the WRG committee especially for this category. Some judging criteria include design, efficiency, technical competency, aesthetics, practicality, etc. This game category is open Junior and Senior participants.

• **Humanoid Challenge (Penguin Wars)**

This is a robotics game where participants control an articulated two-legged humanoid robot to score goals in opponent's side. The robots can be programmed or remote controlled. The robot's task is to put colored balls in the opponent's side either by kicking, picking, or throwing the ball. Understanding of humanoid's mechanics and strategy is important and cooperation with teammates is required. This game category is open for Junior and Senior participants.

SCIENCE CONGRESS

Life Science (Team, Individual)

Physical Science (Team, Individual)

PM

CONTINUATION OF CONTESTS

SCIENCE CONGRESS

Awarding and Closing Ceremony

**DIVISION SCIENCE AND TECHNOLOGY FAIR 2015 (Secondary Level)
Guidelines for Oral Presentation**

I. Schedule of Oral Presentations

A. Oral presentation of scientific works for the Science and Technology Fair will commence on October 15, 2015 at Peñaranda National High School provided that;

1. The project was APPROVED by the Division Scientific Review Committee (DSRC) during the evaluation and screening conducted on September 30, 2015 at Nueva Ecija High School.

2. Requirements have been complied with according to the remarks of the DSRC members especially, but not limited, to the following:

- a. All mandatory and additional forms properly filled out
- b. Authentication of plant identity from an authorized institution, if possible
- c. Proper citation of references
- d. Duly certified data notebook
- e. Other documents considered necessary for particular studies

II. Board of Judges: The members of the Board of Judges were chosen by the Division Office cognizant to their expertise in the field.

III. Criteria for Judging (<http://www.societyforscience.org/page.aspx?=284>, Retrieved 07 October 2013):

A. Creative Ability (30 points)

1. Does the project show creative ability and originality in the questions asked?
 - a. The approach to solving the problem?, the analysis of the data?, the interpretation of the data?
 - b. The use of equipment?, the construction or design of new equipment?
2. Creative research should support an investigation and help answer their question in an original way.
3. A creative contribution promotes an efficient and reliable method for solving a problem. When evaluating projects, it is important to distinguish between gadgeteering and ingenuity.

B. Scientific Thought (30 points)

1. Is the problem stated clearly and unambiguously?
2. Was the problem sufficiently limited to allow plausible approach?
3. Good scientists can identify important problems capable of solutions?
4. Are the variables clearly recognized and defined?
5. If controls were nearly necessary, did the students recognize their need and were they correctly used?
6. Are there adequate data to support the conclusions?
7. Does the finalist or team recognize the data's limitations?
8. Does the Finalist/team understand the project's ties to related research?
9. Does the Finalist/team have an idea of what further research is warranted?
10. Did the Finalist/team cite scientific literature, or only popular literature (i.e., local newspapers, Reader's Digest).

C. Thoroughness (15 points)

1. Was the purpose carried out to completion within the scope of the original intent?
2. How completely was the problem covered?
3. Are the conclusions based on a single experiment or replication?
4. Is the Finalist/team aware of the other approaches or theories?
5. How much time did the finalist or team spend on the project?
6. Is the finalist/team familiar with scientific literature on the studied field?

D. Skill (15 points)

1. Does the Finalist/team have the required laboratory, computation, observational and design of skills to obtain supporting data?
2. Where was the project performed (i.e., home, school laboratory, university laboratory)? Did the student or team receive assistance from parents, teachers, scientists or engineers?
3. Was the project completed under adult supervision, or did the student/team work largely alone.
4. Where did the equipment come from? Was it built independently by the finalist or team? Was it obtained on loan? Was it part of a laboratory where the Finalist or team worked?

E. Clarity (10 points)

1. How clearly does the Finalist discuss his/her project and explain the purpose, procedure and conclusions? Watch out for the memorize speeches that reflect little understanding of principles.
2. Does the written material reflect the Finalist's or team's understanding of the research?
3. Are the important phases of the project presented in an orderly manner?
4. How clearly is the data presented?
5. How clearly are the results presented?
6. Was the presentation done in a forthright manner, without tricks or gadgets?
7. Did the Finalist/or team perform all the project work, or did someone help?

IV. Rules for Oral Presentation

- A. Each project is to be presented in no more than 10 minutes.
- B. The presentation should be concise highlighting the following:
 1. Title
 2. Objectives
 3. Abstract
- C. PowerPoint slides may accompany the presentation.
- D. The presenter will; be notified accordingly of remaining time during the presentation.
- E. The judges may ask clarificatory questions and/or give suggestions for improvement of the study after the presentation.
- F. Only the official author(s) of the study (as reflected in the submitted manuscript) is (are) allowed to answer the questions.

V. Winners

- A. Each judge will independently rate the projects.
- B. Ratings will be totaled and ranked.
- C. Ranks obtained by each project from the three judges will then be added.
- D. The project garnering the lowest totaled rank will be declared first place and so on.
- E. The decision of the judges is final and unappealable.

**Guidelines for Science Quiz Bee
Secondary Level**

Rules and Regulations

1. All contestants will answer the same set of questions in writing for the first round.
2. The top 10 contestants who gets the highest number of points will moved to the next round which will be 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 pt.
 - Average - 2 points
 - Difficult - 3 points
4. Each contestant shall be provided with answer sheets/Show Me Board.
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.

6. The quizmaster shall read each question twice and the time shall start only after the quizmaster says "GO". The contestants may begin to answer only after the quizmaster says "GO".
7. The contestant must write his/her final answer on the answer sheet. If a contestant wishes to change his/her answer, the former answer should be crossed-out and the final answer encircled.
8. 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.
9. Questions shall indicate the number of significant figures for numerical answers. Use of calculators is not allowed.
10. After the time limit has expired, the proctors will collect the answer sheet of each contestant before the quiz master reads the correct answer. The scorer-timer/s shall write on the tabulation board the score of each contestant after every item.
11. If there is a question on the correctness of the answer, the validity of the answer will be determined by the Examiner/Board of Judges. The decision of the Examiner/Board of Judges is final. Solutions may be checked by the Board of Judges if needed.
12. 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.
13. 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.
14. 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.
15. Any violation of the aforementioned rules shall cause the disqualification of the contestant concerned.



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2015 DIVISION SCIENCE AND TECHNOLOGY FAIR (DSTF)

October 14-15, 2015

Peñaranda National High School

Peñaranda, Nueva Ecija

Planning Committee:

Chairman : Jayne M. Manuel – Garcia, Ed. D.
Education Program Supervisor, Science (Secondary)

Co – Chair : Miriam S. Monteroso
Principal III, Peñaranda NHS

Technical Committee:

Chairman : Jayne M. Manuel – Garcia, Ed. D.
Education Program Supervisor, Science (Secondary)

Co – Chair : Romulo V. Vijandre
Science Department Head, Peñaranda NHS

LIST OF FACILITATORS

1. SCIENCE FAIR: (In-Charge: Ma. Soledad V. Dades

➤ **Life Science (Individual/Team)**

Chairman : Rosemarie Burayag
Mary Claire Payawal
Cesar Nepomuceno

➤ **Physical Science (Team)**

Chairman : Evangeline Gaspar
Daisylyn Ortiz
Cesar Nepomuceno

2. SCIENCE QUIZ (Quiz Master for the Different Subjects)

Physics

Alexander Driz
Wilma Fernando
Rosalyn Pascua
Nilda Gonzales

Proctor Grade 10:

Alexander Driz
Rose Ann Sawit
Jenny Olego

Overall Chair: Gerry Vicencio

Chemistry

Rizalyn Corpuz
Rosemarie Sawit
Manuel Paladin

Proctor Grade 9

Rizalyn Corpuz
Wilma Fernando
Analiza Bala

Overall Chair: Raquel Diaz

Biology

Maricel Duldulao
Reden De Jesus
Juanito Legamia
Ms. Remedios Lapuz

Proctor Grade 8

Maricel Duldulao
Juanito Legamia
Analiza Rivera

Overall Chair: Cecille Santiago
Ronald Bondoc

Earth Science

Elsa Galiste
Orpha Mangulabnan
Milanie Reyes

Proctor Grade 7

Elsa Galiste
Orpha Mangulabnan
Melanie Yambot
Rosalyn Pascua

Overall Chair: May Guillermo

FACILITATORS:

CATALINA S. PATIAG
RENATO S. TAN
Ma. Soledad V. Dades
Nora Daquiz
Adora Dela Cruz
Teodora Vitug
Phoebe Sator
Evangeline Melgar
Edith Mendoza
Roman Gamboa
Marlon D. Ramirez

WINDSOR B. FLORES

Mary Finela M. Bayan
Evelyn S. Reyes
Benilda Baluyan
Rosalia Lanorio
Josephine S. Martinez
Cecilio M. Tulaban
Arcelie Interior
Marlie Eduardo

TABULATORS/RECORDERS

Chair: Evelyn Reyes

Members: 1. Allan Martinez
2. Clarissa Mariano
3. Geraldine Marquez

Trophies/Medals

Chair: Elsa Galiste

Members: 1. Rosemarie Sawit
2. Josie Santos

Certificates/Registration Forms/Others

1. Wendy Cabangon
2. Ronalyn Gonzales

**Registration
Documentation**

(In-Charge: Penaranda National high School)

Chair: Lorma May Datuin

Members: 1. Girlie Gonzales
2. Carlos Pailas
3. Wendy Cabangon
4. Gemma Peralta

Usherettes

Chair: Francisca Peralta

Members: 1. Gloria Lising
2. Lorma May Datuin
3. Josie Santos
4. Elvie B. Dela Cruz
5. Elena Lopez
6. Mary Ann W. Noda