



Republic of the Philippines
Department of Education
Region III
SCHOOLS DIVISION OF BULACAN

August 11, 2026

DIVISION MEMORANDUM

No. 319, s. 2026

DIVISION SCIENCE AND TECHNOLOGY FAIR 2026: ENHANCING THE 21st CENTURY SKILLS OF LEARNERS THROUGH PROJECT SCIENTIFIC RESEARCH SKILLS (PRO SCIE-RESEARCH@E4.0)

To: Assistant Schools Division Superintendents
Division Chiefs
All Public Secondary School Heads
All Others Concerned

1. This Office announces the conduct of the Division Science and Technology Fair 2026: Enhancing the 21st Century Skills of Learners through Project Scientific Research (Pro Scie-Research@E4) with the theme, "**Science, Technology and Innovation are for Everyone**" on September 10-11, 2026 at a venue to be announced later.
2. Education 4.0 or E4.0 is a transformational learning approach aligned with the Fourth Industrial Revolution. It aims to equip learners with future-ready skills, such as critical thinking, collaboration, and digital literacy, and fosters an inclusive and adaptive educational environment to meet the evolving demands of the 21st century.
3. In alignment with the goals of the Regional Science and Technology Fair 2026 and the National Science and Technology Fair 2026, the DSTF 2026 aims to:
 - a. enhance the 21st-century skills of SSES, Regular Elementary/High School, JHS STE, and SHS STEM learners specifically collaboration, communication, creativity, critical thinking, character, citizenship, and computational thinking;
 - b. strengthen the implementation of Special Program in Science, Technology, Engineering and Mathematics (SPSTEM) through healthy and friendly interschool scientific research and robotics competition;
 - c. underscore the hallmark of SPSTEM learning through problem-based and project-based learning;
 - d. advocate the culture of research and development among the youth; and,
 - e. identify the most creative and innovative projects from STE and STEM learners who shall represent the Division to the RSTF 2026.
4. The competitions/events are as follows:
 - A. **RoboCom: Problem-Based Learning for Young Innovators** is open to all elementary learners (Key Stage 2: Grades 4-6) for **KS2 category** and Secondary learners (Key Stages 3 and 4: Grades 7 -12) for **KS3/4 category**. Each team must have two (2) members, and each school is allowed to send a maximum of one (1) team for their chosen category. This event invites students to apply robotics to real-world community survival and sustainability. This competition challenges learners to elevate their problem-solving, programming, and engineering skills by tackling critical national issues. **Only registered participants will be eligible to compete in the DSTF 2026 on 10 September 2026.**



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- B. **Tuklas and Science Innovation Expo Research Competition** is open to Grades 9 and 10 learners and Grades 11 and 12 learners who have not reached the age of 20 years old on or before May 1, 2026. Learners may work individually or in teams with 2-3 members from the same school. Each individual or team project is eligible to compete in only one among the four categories of **Tuklas** research competition: **Life Science, Physical Science, Robotics and Intelligent Machines, Mathematics and Computational Sciences, and Science Innovation Expo**. The deadline of submission of entries (in *hard copy, triplicate, and with all the necessary forms*) is on **September 1, 2026** at **Dr. Pablito V. Mendoza Sr. High School**, Brgy. Malamig, Bustos, Bulacan. The division screening and evaluation of entries will be held on September 3-4, 2026. The shortlisted entries will be announced on September 7, 2026. **Only the shortlisted entries will compete in the DSTF 2026 on Thursday, 10 September 2026.**
- C. **Sci-Sparks QuizBee** is an engaging and competitive academic event designed specifically for the bright young minds of the Special Science Elementary School (SSES) program. This competition aims to foster a love for learning, encourage teamwork, and test foundational knowledge in Science, Technology, Engineering and Mathematics among early grade learners. Open **exclusively to SSES learners** currently enrolled in Grades 1, 2, or 3. (Teams may be composed of students from the same grade level or a mix of the eligible grades). Each team must consist of exactly two (2) members working collaboratively to answer the questions. Each participating school is allowed to register a maximum of one (1) team only. **Only registered participants will be eligible to compete in the DSTF 2026 on Thursday 11 September 2026.**
5. School Coaches of the contest(s) are required to pre-register using their official **DepEd E-mail** on/before **August 28, 2026** to the link below:
<https://bit.ly/DSTF2026>
6. Transportation expenses to be incurred by the qualified participants with their coaches for the said competition shall be charged to their school's Maintenance and Other Operating Expenses (MOOE) and/or local funds subject to the usual accounting and auditing rules and regulations.
7. This Division Memorandum serves as the travel order of the participants with their respective coaches and the DSTF 2026 team. Attached herewith is the activity matrix and list of contest organizers and TWG.
8. Wide and immediate dissemination of this Memorandum is earnestly desired.


CECILIA E. VALDERAMA, PhD, CESO VI
Schools Division Superintendent



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Encl: As Stated

Enclosure No. 1 of DM no. 369, s. 2026

I. DSTF 2025 Schedule of Activities

**Day 1 (Thursday, 10 September 2026)
Secondary Schools Competition**

Time	Activity	Facilitators
7:30 – 8:00 AM	Registration of Participants Tuklas Research Competitions for Grades 9-12	TWG
8:00 – 9:00 AM	Opening Program for Day 1	TWG
9:00 – 11:00 PM	Tuklas Contest Proper	BOJ & TWG
11:00 – 12:00 NN	Awarding of Winners for Tuklas	TWG
12:00 – 12:30 PM	Registration of Participants RoboCom: Problem-Based Learning for Young Innovators (KS 3/4 Category)	TWG
12:30 – 1:00 PM	Orientation on Contest Mechanics	TWG
1:00 – 3:30 PM	RoboCom: Problem-Based Learning for Young Innovators (KS 3/4 Category)	TWG
3:30 – 4:30 PM	Pitching and Evaluation	BOJ & TWG
4:30 – 5:00 PM	Closing Program and Awarding of Winners for Sci-Sparks Quiz Bee	TWG

**Day 2 (Friday, 11 September 2026)
Elementary Schools Competition**

Time	Activity	Facilitators
7:30 – 8:00 AM	Registration of Participants Sci-Sparks Quiz Bee	TWG
8:00 – 9:00 AM	Opening Program and Contest Mechanics for Day 2	TWG
9:00 – 11:00 AM	Sci-Sparks Quiz Bee Contest Proper	BOJ & TWG
11:00 – 11:30 AM	Judges' Deliberation	BOJ & TWG
11:30 – 12:00 NN	Awarding of Winners for Sci-Sparks Quiz Bee	BOJ & TWG
12:00 – 12:30 PM	Registration of Participants RoboCom: Problem-Based Learning for Young Innovators (KS 2 Category)	TWG
12:30 – 1:00 PM	Orientation on Contest Mechanics	BOJ & TWG
1:00 – 3:30 PM	RoboCom: Problem-Based Learning for Young Innovators (KS 2 Category) Contest Proper	BOJ & TWG
3:30 – 4:30 PM	Pitching and Evaluation	BOJ & TWG
4:30 – 5:00 PM	Closing Program and Awarding of Winners for Day 2	Organizers & TWG



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II. DSTF 2026 Proponent, Judges, and TWG

Name	Position	Station
Proponent		
Marinella T. Pengson, PhD	DEPSvr	SDO Bulacan
Panel of Judges		
1. Frederick G. del Rosario	Principal IV	Guiguinto National Vocational HS
2. Rico Paulo G. Tolentino, PhD	Principal III	Sta. Peregrina HS
3. Odette V. Espiridion, PhD	Principal III	Maronquillo NHS
4. Jaypee Armenion	Principal III	Aguinaldo J. Santos NHS
5. Marco Paolo M. Victoriano	Information Technology Officer I	SDO Bulacan
6. Shineth C. Novera, PhD	Principal I	Bulualto ES
7. Daisy DJ. Miranda, PhD	Principal I	Dr. Pablito V. Mendoza Sr. HS
8. Nica Marie B. Magisa, PhD	Principal I	Heritage Homes IS
9. Guest Judge A	S&T Expert	UP Diliman
10. Guest Judge B	S&T Expert	DOST
11. Guest Judge C	S&T Expert	DOST
12. Guest Judge D	S&T Expert	BulSU
Technical Working Group		
13. Maricel M. Sosa, PhD	School Head-OIC	Pasong Bangkal ES
14. Florida P. Tolentino	Head Teacher III	Carlos F. Gonzales HS
15. Mervin G. Lucas	Head Teacher III	Sta. Maria NHS
16. Rovielyn R. Guerrero	Head Teacher III	Dr. Pablito V. Mendoza Sr. HS
17. Ma. Teresa E. Mendoza, PhD	Master Teacher II	Talipit NHS
18. Marjorie F. Boado	Master Teacher II	Parada NHS
19. Jayson B. Eugelio, PhD	Master Teacher I	San Miguel NHS
20. Conrad A. Populi	Teacher III	Bunsuran NHS
21. Phoebe Grade D. Biol	Teacher III	Prenza NHS
22. Roy Ivan M. Reyes	Teacher III	Virginia Ramirez-Cruz NHS
23. Mary Ann I. Santos	Teacher III	Aguinaldo J. Santos NHS
24. Ian L. Bustamante	Teacher II	Parada NHS
25. Fitz Gerald V. Cedillo	Teacher II	Pulong Buhangin NHS
26. School Principal, Head Teacher, and Science Teachers for the preliminary judging of Tuklas Research Competition entries		Dr. Pablito V. Mendoza, Sr. NHS



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III. Contest Mechanics

A. RoboCom: Problem-Based Learning for Young Innovators

COMPONENT AREA	Science, Technology, and Engineering
KEY STAGE	Key Stage 2: Grade 4 to 6 Key Stage 3 & 4: Grade 7 to 12
EVENT TITLE	RoboCom: Problem-Based Learning for Young Innovators
NO. OF PARTICIPANT/S	2 Participants from each school
TIME ALLOTMENT	2 to 3 hours
21 ST CENTURY SKILL/S	Critical Thinking, Problem-solving Skills, Collaboration & Teamwork, Communication Skills, Digital Literacy & ICT Proficiency
DESCRIPTION	RoboCom: Problem-Based Learning for Young Innovators is a dynamic, hands-on competition designed to transform students from passive tech consumers into active, empathetic problem-solvers. Moving beyond traditional "robot battles" or pre-programmed obstacle courses, RoboCom is deeply rooted in Problem-Based Learning and Design Thinking. The event challenges Elementary (Key Stage 2) and Secondary (Key Stages 3 and 4) learners to engineer mechanical and robotic solutions for real-world community issues. By prioritizing human-centered design, teams are required to understand the needs of the affected community, brainstorm viable interventions, and construct a functional prototype from scratch on the day of the event. It is a celebration of resourcefulness, applied science, and collaborative innovation.

EVENT RULES AND MECHANICS

The competition will be divided into three core phases, guiding contestants through a structured design process:

Phase 1: The Problem Pitch

- Teams will receive a localized, real-world scenario (e.g., disaster risk reduction, agricultural efficiency, or waste management).
- Teams must analyze the problem, define the needs of the affected community, and brainstorm a mechanical or robotic solution.
- Each team must prepare a simple sketch and a one-page "Design Blueprint" detailing what their prototype will do.

Phase 2: The Build & Prototype

- Teams will construct their prototypes using their materials and robotics kits.
- The focus is on creating a functional minimum viable product (MVP) that demonstrates the core mechanism of their solution.

Phase 3: The Pitch and Demonstration



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- Teams will present their prototype to a panel of judges.
- They must explain the problem, demonstrate how their prototype works, and answer a brief Q&A session

To ensure fair competition, the technical requirements and allowed materials differ by category.

Requirement	KS2 (Grades 4 - 6)	KS3/4 (Grades 7 - 12)
Focus	Basic mechanics, structural stability, and creative problem-solving.	Sensor integration, automation, and functional programming.
Allowed Hardware	Basic robotics kits simple DC motors, cardboard, recycled materials, craft supplies.	Advanced microcontrollers, servo motors, environmental sensors, breadboards.
Complexity Limit	The prototype must demonstrate at least one moving part or automated action.	The prototype must utilize at least one sensor input to trigger an automated mechanical output.

Prohibited Materials & Actions

- **Pre-built Assemblies:** All robots must be built from scratch during the competition. No pre-assembled chassis or pre-written code is allowed.
- **Dangerous Components:** Lasers, flammable liquids, sharp projectiles, or high-voltage components are strictly forbidden.
- **Outside Communication:** Students may not use smartphones or the internet to search for code or designs during the event.

Judging Criteria

The prototypes will be evaluated not just on technical complexity, but on how well they solve the given problem.

Relevance & Problem-Solving (30%)

- Does the prototype directly address the specific community problem?
- Did the team show empathy and understanding of the end-user's needs?

Innovation & Design (25%)

- Is the solution creative, unique, or a clever improvement on existing ideas?
- Is the physical design resourceful and logically structured?

Functionality & Execution (25%)

- Does the prototype work as intended during the demonstration?
- (KS2) Are the mechanics smooth? / (KS3/4) Is the sensor-to-action programming effective and bug-free?

Communication & Teamwork (20%)



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- Did the team clearly explain their design process and the science behind their solution?
- Did all members actively participate in the build and the presentation?

Presentation & Awards

1. The Top 5 teams compete live on the main stage.
2. The Top 5 explain their design and code to the judges to determine the winners.
3. Awards: **Champion, 1st Runner-up, 2nd Runner-up.**
4. Coaches/teachers are not allowed to assist during the official run.
5. Teams must show sportsmanship and professionalism.
6. Any form of cheating or unfair play will result in disqualification.

RESOURCE REQUIREMENTS

Event Supplies, Tools, and Equipment	Participants	Venue Host	Contest Organizers
A. Tools/ Equipment	- Laptop - Extension Cord - Robotics Kits	- Tables - Chairs - LCD Projector	
B. Materials			- Medals - Certificates - Office supplies

B. Tuklas Research Competitions

COMPONENT AREA	Science
KEY STAGE	Key Stage Three and Four (3&4): JHS STE 9-10 and SHS STEM 11-12
EVENT TITLE	Tuklas Research Competition
NO. OF PARTICIPANT/S	Individual Category: 1 Team Category: 2-3
TIME ALLOTMENT	4 to 6 hours
21ST CENTURY SKILL/S	Critical Thinking, Problem-solving Skills, Creativity and Innovation, Collaboration & Teamwork, Communication Skills, Information, Media, & Technology Literacy, and Global & Environmental Awareness
DESCRIPTION	Tuklas is a STEM research competition that provides opportunities for Junior and Senior High School learners to showcase their research projects based on their field of interest and/or real-world problems, issues, and concerns. Science Innovation Expo



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A Technology Innovation competition which aims to recognize the most creative and market viable project addressing crucial issues in food safety, water conservation, renewable energy, cyber security, road safety, health, disaster mitigation, agriculture, and environment.

EVENT RULES AND MECHANICS

1. **Tuklas** and **Science Innovation Expo Research Competition** is open to Grades 9 and 10 STE learners and Grades 11 and 12 STEM learners who have not reached the age of 20 years old on or before May 1, 2026.
2. Learners may work individually or in teams with 2-3 members from the same school.
3. Individual or team projects are eligible to compete in only one among the four categories of **Tuklas** research competition: Life Science, Physical Science, Robotics and Intelligent Machines, and Mathematics and Computational Sciences and **Science Innovation Expo**.
4. To facilitate the evaluation process for the judges who cannot attend the face-to-face event, research advisers are requested to create a dedicated Google Drive folder containing soft copies of the manuscripts and plagiarism scan report. The link to this folder must be submitted through the pre-registration Google Form.
5. The deadline of submission of entries (3 copies of manuscript and plagiarism scan report) is on **September 1, 2026** at Dr. Pablito V. Mendoza Sr. High School, Bustos District. The division screening and evaluation of entries will be held on **September 3-4, 2026**. Please refer to the list below for the color of the folders to be used.

Codes	Color Coding
LS-I	Green
LS-T	Yellow
PS-I	Dark Blue/Navy Blue
PS-T	Orange
RIM-I	Pink
RIM-T	Brown
MCS-I	Red
MCS-T	Purple
SIE-I	Black
SIE-T	Light Blue/ Sky Blue

6. The shortlisted entries will be announced on September 7, 2026. **Only the shortlisted entries will compete in the DSTF 2026 on Thursday, 10 September 2026.**
7. First placers in each category in the Division Science and Technology Fair (DSTF) will be screened by the regional SRC. The qualifiers will advance to the RSTF.
8. To recognize exceptional efforts and contributions, Special Awards will be given to outstanding coaches, researchers, and the host school.

RESOURCE REQUIREMENTS



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Event Supplies, Tools, and Equipment	Participants	Venue Host	Contest Organizers
A. Tools/ Equipment	- Laptop - Extension Cord - Physical Project (if applicable)	- Projector - Chairs and Tables - Timer - Sound System	
B. Materials			- Medals - Certificates - Office supplies

C. PISA-Like Quiz Bee

COMPONENT AREA	Science
KEY STAGE	Key Stage 1 and 2: Grades 3 - 6
EVENT TITLE	Young Tech Creators
NO. OF PARTICIPANT/S	Elementary - Each team shall be composed of one (1) member from any of the Grade 3-6 student - One (1) coach
TIME ALLOTMENT	30 minutes – Orientation 1 hour – Quiz Bee Contest 30 minutes – Consolidation and verification of the Results
21ST CENTURY SKILL/S	Critical Thinking, Problem-solving Skills, and Mastery of Core Concepts
DESCRIPTION	The Elementary Science Quiz Bee (PISA-Style Edition) is an academic competition designed to move young learners beyond simple fact memorization and toward real-world scientific literacy. By framing challenges around everyday scenarios, diagrams, and data sets, the competition tests how effectively students can apply what they know. ● Critical Thinking: Evaluates how well students analyze data, interpret graphs, and draw evidence-based conclusions. ● Problem-Solving: Encourages multi-step reasoning to tackle practical scientific problems and natural phenomena. ● Mastery of Core Concepts: Reinforces deep understanding of foundational topics like ecosystems, force and motion, and energy systems.



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EVENT RULES AND MECHANICS

1. Team Composition & System Requirements

- **Team Structure:** Each participating school must register **one (1) student participant** and **one (1) official coach**.
- **Technical Setup:**
 - **Device:** Laptop or tablet with an updated web browser (Google Chrome or Mozilla Firefox is recommended).
 - **Connectivity:** Stable internet connection.
 - **Access:** Candidates will take the exam independently by clicking the official test link provided to them prior to the contest start time. No webcam, microphone, or external video meeting platforms (e.g., Zoom, Google Meet) are required.

2. Contest Flow & Schedule

Time Frame	Activity	Operational Details
30 mins	Orientation & Link Distribution	• Briefing on mechanics and test-taking instructions. • The official SpeedExam test link is sent to students/coaches via registered email/messaging channel.
60 mins	Official Online Contest	• 60-minute continuous timed exam session on SpeedExam.net. • Students access the link and answer the Easy, Average, and Difficult rounds.
30 mins	Consolidation, Verification & Results	• Automated score tabulation via SpeedExam. • Review of system log security reports. • Resolution of ties/clincher items (if applicable) and final ranking announcement.

3. Question Structure & Point Distribution

The contest features **25 core items** categorized by difficulty, with a pool of **5 tie-breaker items** reserved for the Clincher Round. All items follow PISA-style scenario-based questions, data interpretations, and diagrams.

Round	Number of Items	Weight per Item	Total Category Points
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Easy	10	1 Point	10 Points
Average	10	2 Points	20 Points
Difficult	5	3 Points	15 Points
TOTAL MAIN CONTEST	25 Items	—	45 Points
Clincher (Tie-Breaker)	5	1 Point	Sudden Death

Time Allocation: Students have a maximum limit of **60 minutes** to complete all 25 items on SpeedExam.net.

4. Platform Rules & Test Mechanics (SpeedExam.net)

a. **Test Access & Navigation:**

1. The test link will activate precisely at the scheduled contest start time.
2. The total exam duration is **60 minutes**. SpeedExam's built-in timer will automatically submit all responses once time expires at 00:00:00.
3. Students may navigate through the questions within the 60-minute limit before submitting.

1. **Automated Platform Integrity:**

- **Browser Lockdown & Activity Log:** SpeedExam automatically monitors window focus. Switching tabs, opening other applications, or resizing windows is tracked and logged by the platform, which may serve as grounds for disqualification.
- **Copy-Paste Restriction:** Copying, pasting, and right-clicking are hard-disabled within the exam interface.
- **Scoring:** Automatic grading is executed by SpeedExam upon submission. There is no negative marking (no point deduction for blank or incorrect answers). Exact spelling is required for fill-in-the-blank entries.

5. Clincher Round (Tie-Breaking Mechanics)

- In the event of a tie affecting any position within the Top 10 ranks, a **Clincher Round** will be administered during the 30-minute consolidation window.
- Tied participants will receive a separate link to access the 5-item Clincher Module on SpeedExam.
- **Sudden-Death Rule:** Items are evaluated sequentially. The first participant to score correctly on an item while their tied opponent misses it automatically secures the higher rank.

6. Verification, Appeals, and Role of Coaches



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- **Coach Role:** Coaches are responsible for ensuring their student accesses the link on time and operates the test independently without assistance or third-party reference materials.
- **Protests & Audit Logs:**
 - Any questions or score verification requests must be submitted by the **Official Coach** during the **30-minute Consolidation Period**.
 - The Board of Judges will review the raw submission data and SpeedExam tab-switching activity logs to resolve any issues.
 - The final verdict of the Board of Judges is **final and unappealable**.

7. Awards & Recognition

- **Ranking 1 to 10:** Awarded an official **Certificate of Recognition** and a **Medal**.
- **Ranking 11 and below:** Awarded a digital **Certificate of Participation**.

RESOURCE REQUIREMENTS

Event Supplies, Tools, and Equipment	Participant	Host School/Venue	Host Division
A. Materials/Supplies	- Laptop - Scratch paper - pen / pencil		- Timer
B. Tools/Equipment		- First Aid Kit - Tables - Chairs	- Laptop - LCD projector