



**Republic of the Philippines**  
**Department of Education**  
NATIONAL CAPITAL REGION  
SCHOOLS DIVISION OFFICE OF MUNTINLUPA CITY

**Office of the Schools Division  
Superintendent**

JUN 10 2022

MEMORANDUM  
NO. 125, s. 2022

**DIVISION SCIENCE AND TECHNOLOGY FAIR (DSTF) FOR SY 2021-2022**

To: Asst. Schools Division Superintendent  
Chief Education Supervisor, Curriculum Implementation Division  
Chief Education Supervisor, School Governance and Operations Division  
Public Secondary School Heads/Principals/OICs  
All Others Concerned

1. Pursuant to Regional Memorandum 2022, this office will be conducting the above captioned activity with the theme: Expanding the Horizon: Futures of STEM on June 16-17, 2022. This will be conducted on a blended modality:

- a. Siyensikula- an original video creation competition ( virtual via zoom)
- b. Likha- a Research Proposal Competition (face-to-face)- SDO Student Center for Life Skills Bldg. at 9:00 a.m. to 5:00 p. m.
- c. #SteMTokperiments- a TikTok Science Experiment Competition (virtual via zoom)

2. This year's DSTF continues to empower the youth and cultivate innovation, and creativity amidst the changing world. This competition also aims to showcase the competence of the learners in addressing community problems for sustainable development and to maximize their potentials of being inquisitive and creative dealing with real life problems.

3. The blended DSTF will banner the following events and competitions:

4. Strict adherence to National and Local IATF protocols must be observed in all levels.

5. The evaluation of the Division Board of Judges is final irrevocable.

6. The documents below are enclosed for information and guidance of all concerned.

|                 |                                                         |
|-----------------|---------------------------------------------------------|
| Enclosure No. 2 | 1 Siyensikula Mechanics                                 |
| Enclosure No. 3 | 2 Siyensikula Criteria                                  |
| Enclosure No. 4 | 3 Siyensikula/SteMTokperiments Waiver and Certification |
| Enclosure No. 5 | 4 Useful Resources for the Siyensikula                  |
| Enclosure No. 6 | 5 Likha Mechanics and Criteria                          |
| Enclosure No. 7 | 6 Likha Rubrics Evaluation Tool (Judging)               |
| Enclosure No. 8 | 7 Likha Project Proposal Template                       |
| Enclosure No. 9 | 8 SteMTokperiments-Mechanics and Criteria               |



Student Center for Life Skills Bldg., Centennial Ave, Brgy Tunasan,  
Muntinlupa City  
(02) 8805-9935, (02) 8805 - 9940  
sdo.muntinlupa@gmail.com



ISO 9001:2015  
Certified No: 18.1519.026



MEM. SYS  
Rev. C.42

0609039



Republic of the Philippines  
Department of Education  
NATIONAL CAPITAL REGION  
SCHOOLS DIVISION OFFICE OF MUNTINLUPA CITY

Office of the Schools Division  
Superintendent

JUN 10 2022

- Enclosure No.10 9 Omnibus Guidelines in Submission of Entries for DSTF  
2022 (SDO Muntinlupa Representative)  
Enclosure No.11 10 Photograph, Video and Voice Recording Consent, Waiver,  
Indemnity and Release Form  
Enclosure No.12 DSTF 2022 Technical Working Group

7. Schools Participants:

Muntinlupa Science High School (Junior HS and Senior HS)  
Muntinlupa National High School (Junior HS and Senior HS)  
Muntinlupa Business High School Main  
Cupang Senior High School

All entries will be submitted to Dr. Armida S. Oblinada  
([armida.oblinada001@deped.gov.ph](mailto:armida.oblinada001@deped.gov.ph)) not later than June 9, 2022 Thursday until 12  
midnight

8. Immediate and wide dissemination of this Memorandum is highly desired.

  
**CARLEEN S. SEDILLA CESO V**  
Schools Division Superintendent

Encl: As stated  
Reference: Regional Memorandum  
To be indicated in the Perpetual Index  
under the following subjects:

ACTIVITIES

LEARNING AREA, SCIENCE

ASO/DM – DIVISION SCIENCE AND TECHNOLOGY FAIR (DSTF) FOR SY 2021-2022  
\_\_\_\_\_/June 6, 2022



Student Center for Life Skills Bldg., Centennial Ave, Brgy Tunasan,  
Muntinlupa City  
(02) 8805-9935, (02) 8805 - 9940  
sdo.muntinlupa@gmail.com



IONet - IAF  
ISO 9001:2015  
Certified No: 18.1519.026



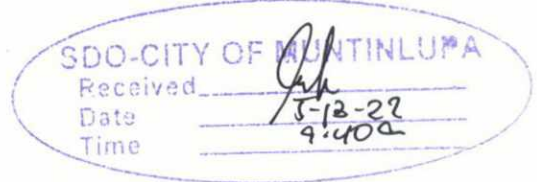


Republic of the Philippines  
**Department of Education**  
NATIONAL CAPITAL REGION

DEPARTMENT OF EDUCATION  
RECORDS SECTION, DEPED NCR  
**RELEASED**  
By:  Date: **MAY 12 2022**

DNCR-F-ORD-033/RO/01112019

**Regional Memorandum**  
No. , s. 2022 **258**



To : Schools Division Superintendents

Subject : **REGIONAL SCIENCE AND TECHNOLOGY FAIR (RSTF)  
for SY 2021- 2022**

Date : May 12, 2022

1. In reference to DepEd Memorandum entitled National Science and Technology Fair for SY 2021-2022 from Secretary Leonor Magtolis Briones, the Department of Education -National Capital Region through the Curriculum and Learning Management Division (CLMD), shall conduct the above captioned activity with the theme: *Expanding the Horizon: Futures of STEM* on **July 6-8, 2022**. However, with the varied levels of COVID-19 restrictions being implemented, the conduct of the RSTF 2022 will be held virtually in coordination with the Schools Division Offices (SDOs).

2. This year's RSTF continues to empower the youth and cultivate innovation, and creativity amid the changing world. This competition also aims to showcase competence of the learners in addressing community problems for sustainable development and to maximize their potentials of being inquisitive and creative in dealing with real life problems.

3. The virtual RSTF will banner the following events and competitions:  
a. Siyensikula- an original video creation competition  
b. Likha- a Research Proposal Competition  
c. #SteMTokperiments- a TikTok Science Experiment Competition

4. Strict adherence to National and local IATF protocols must be observed in all levels.

5. All expenses related to the conduct of the RSTF 2022 expenses like video production including notarial services, communication allowance of the learners/coach, honorarium of judges, etc., can be charged to local funds of the school/SDOs, subject to the usual accounting and auditing rules and regulations.



0513026

6. The decision of the Regional Board of Judges in the evaluation and Deliberation of entries is final and irrevocable.

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

|                  |                                                                                   |
|------------------|-----------------------------------------------------------------------------------|
| Enclosure No. 1  | Timeline RSTF 2022                                                                |
| Enclosure No. 2  | <i>Siyensikula</i> Mechanics                                                      |
| Enclosure No. 3  | <i>Siyensikula</i> Criteria                                                       |
| Enclosure No. 4  | <i>Siyensikula</i> / <i>SteMtokperiments</i> Waiver and Certification             |
| Enclosure No. 5  | Useful Resources for the <i>Siyensikula</i>                                       |
| Enclosure No. 6  | Likha Mechanics and Criteria                                                      |
| Enclosure No. 7  | Likha Rubric Evaluation Tool (Judging)                                            |
| Enclosure No. 8  | Likha Project Proposal Template                                                   |
| Enclosure No. 9  | <i>SteMtokperiments</i> - Mechanics and Criteria                                  |
| Enclosure No. 10 | Omnibus Guidelines in Submission of Entries for RSTF 2022                         |
| Enclosure No. 11 | Photograph, Video and Voice Recording Consent, Waiver, Indemnity and Release Form |
| Enclosure No. 12 | RSTF 2022 Technical Working Group                                                 |

8. Participants, trainers and Regional Technical Working Group shall be entitled to service credits in accordance with DepEd Order No. 53, s. 2003 entitled Updated Guidelines on the Grant of Vacation Service Credits to teachers. However, non - teaching personnel including Management Staff shall be given with Compensatory Time-Off (CTO) per Civil Service Commission (CSC) and Department of Budget and Management (DBM) Joint Circular No.2, s.2004 on Non-Monetary Renumeration for Overtime Service Rendered, specific attention on Section 5.

9. Immediate dissemination of this Memorandum is desired.

  
**WILFREDO E. CABRAL**

Regional Director, DepEd NCR and  
Officer-in-Charge, Office of the Undersecretary  
Human Resource and Organizational Development

Encls:

As stated

Reference:

DepEd Memorandum No.038, s. 2022

To be indicated in the Perpetual Index  
under the following subjects:

125/ CELEBRATIONS AND FESTIVALS    CONTESTS    LEARNING AREA, Science    SCHOOLS    STUDENTS



## Enclosure No. 1 Timeline in the Conduct of RSTF 2022

| Date/<br>Schedule                   | Activities                                                                                                                                                                  | Persons Involved                                                                                                                                                                |
|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| May 27 – June 25                    | Conduct of the Division Science and Technology Fair                                                                                                                         | Division Math and Science Supervisors and Head Teachers                                                                                                                         |
| June 27, 2022<br>8:00 AM – 11:59 PM | Submission of Division Entries to the Region via Google Classroom                                                                                                           | Teacher-Advisers<br>Division Science and Math Supervisors                                                                                                                       |
| June 28 – July 2, 2022              | Sending of Entries to Judges                                                                                                                                                | Regional Math and Science Supervisors, Division Science and Math Supervisors and Association of Regional Secondary Schools Science Club Advisers and Research Advisers Officers |
| July 5, 2022                        | Dry Run and Orientation for RSTF 2022                                                                                                                                       | Regional Math and Science Supervisors, Division Science and Math Supervisors and Association of Regional Secondary Schools Science Club Advisers and Research Advisers Officers |
| July 6, 2022                        | Day 1 of Regional Science and Technology Fair <ul style="list-style-type: none"> <li>Virtual Opening Program</li> <li>Siyensikula (AM)</li> <li>STEMTokPeriments</li> </ul> | Regional Math and Science Supervisors, Division Science and Math Supervisors and Association of Regional Secondary Schools Science Club Advisers and Research Advisers Officers |
| July 7, 2022                        | Day 2 of RSTF 2022 <ul style="list-style-type: none"> <li>LIKHA</li> </ul>                                                                                                  | Regional Math and Science Supervisors, Division Science and Math Supervisors and Association of Regional Secondary Schools Science Club Advisers and Research Advisers Officers |
| July 8, 2022                        | Day 3 of RSTF 2022 <ul style="list-style-type: none"> <li>Closing Program and Awarding Ceremonies</li> </ul>                                                                | Regional Math and Science Supervisors, Division Science and Math Supervisors and Association of Regional Secondary Schools Science Club Advisers and Research Advisers Officers |

|                  |                                                                   |                                                                                                                                                                                 |
|------------------|-------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| July 11-14, 2022 | Preparation for the submission of the winning entries to the NSTF | Regional Math and Science Supervisors, Division Science and Math Supervisors and Association of Regional Secondary Schools Science Club Advisers and Research Advisers Officers |
| July 15, 2022    | Submission to NSTF                                                | Regional Math and Science Supervisors, Division Science and Math Supervisors and Association of Regional Secondary Schools Science Club Advisers and Research Advisers Officers |

## **Enclosure No. 2 “Siyensikula”-Mechanics**

1. This competition is open to **all Junior and Senior High School students** from both Public and Private Schools in the country. Only **individual entries** are allowed.
2. The **participant** must choose and discuss a difficult topic under Physical Sciences, Life Sciences, Mathematics, or an Engineering concept in a clear, creative, and engaging manner through a video presentation that is **not more than three (3) minutes**. The participant can discuss the topic in English and/or Filipino.
3. All contents of the video must be original and are owned by the participant. Entries may include personal experiences and thoughtful observations.
4. All creative visual tools such as animations, simulations, physical demonstrations, or visual aids are allowed. List and cite all the resources used including but not limited to images, audio, video clips, books, articles, etc. Use public domain sites for references and resources. Entries with photos and videos which are derivative works will automatically be **disqualified**.
5. Each SDO will only send **one official entry** properly endorsed by the Schools Division Superintendent through an endorsement letter on or before on June 27, 2022.
6. Entries must be submitted via **Google Classroom**, with guidelines of submission to Google Classroom stated on *Enclosure No. 10* on this memorandum.
7. The Evaluation and Selection Committee will review and score all the video entries based on the criteria for judging found in *Enclosure No. 2*.
8. All the winning entries (TOP 5) will receive certificates, and medals (TOP 3). The **top 2 entries** will represent the National Capital Region to the NSTF for SY 2021-2022.
9. This competition is inspired by the international breakthrough junior challenge. To have a greater grasp of the competition, the links of the previous winning entries of the breakthrough junior challenge are found in *Enclosure No. 5*.

### Enclosure No. 3 "Siyensikula"-Criteria

(Source: DepEd Memorandum)

| <b>"Siyensikula" - Rubric Evaluation Tool</b> |                                                                                                    |                                                                                                       |                                                                                                                                      |                                                                                                                                    |                                                                                                                               |                                                                                                                                 |
|-----------------------------------------------|----------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| Entry No.                                     | Points                                                                                             |                                                                                                       |                                                                                                                                      |                                                                                                                                    |                                                                                                                               |                                                                                                                                 |
| Criteria                                      | 0                                                                                                  | 1                                                                                                     | 2                                                                                                                                    | 3                                                                                                                                  | 4                                                                                                                             | 5                                                                                                                               |
| Engagement                                    | Failed to establish engagement and did not hold viewer's attention.                                | Somewhat interesting but did not hold viewer's attention for the entire length of the video.          | Fairly interesting and held viewer's attention for the entire length of the video.                                                   | Interesting and viewer felt engaged throughout the entire length of the video.                                                     | Very interesting and throughout the video, viewer was excited to see what would come next.                                    | Captivating and made the viewer want to watch other videos made by the entrant.                                                 |
| Illumination                                  | Failed to explain the subject matter clearly; video did not help viewer understand subject matter. | Explanation was at times confusing, and viewer was not able to understand much of the subject matter. | Explanation was fairly clear but covered only general concepts.                                                                      | Explanation was clear and covered some topics beyond general concepts.                                                             | Explanation was very clear and covered many topics beyond general concepts.                                                   | Viewer was able to fully understand the explanation, and video provided a deep dive into the intricacies of the subject matter. |
| Creativity                                    | No elements of the video demonstrated a creative approach to explaining the subject matter.        | The explanation was standard and contained one or two resourceful elements.                           | Parts of the video used creative approaches that made those parts of the explanation stronger.                                       | Many parts of the video took an unorthodox approach to explaining the subject matter, which made the overall explanation stronger. | The entrant implemented a creative approach throughout the entire video that helped the viewer understand the subject matter. | Video provided an inventive approach that should be used to teach the subject matter.                                           |
| Difficulty                                    | Subject matter is typically covered at the elementary school level.                                | Subject matter is typically covered at the junior school level.                                       | Subject matter is typically covered at the middle school level, but the video expands upon more complex areas of the subject matter. | Subject matter is typically covered at the high school level.                                                                      | Subject matter is typically covered at the advanced high school level or early college level.                                 | Subject matter is typically covered at the advanced college level or higher.                                                    |
| Total<br>(Maximum of 20 points)               |                                                                                                    |                                                                                                       |                                                                                                                                      |                                                                                                                                    |                                                                                                                               |                                                                                                                                 |

**Enclosure No. 4 Siyensikula and SteMtokperiments Waiver and Certification**

**CERTIFICATION**

**KNOWN ALL MEN BY THESE PRESENTS:**

That I \_\_\_\_\_ of \_\_\_\_\_ writer in the \_\_\_\_\_ hereby certify that our entry is of our own, and is new and original to the best of our knowledge. I further certify that we give our permission for DepEd – Bureau of Curriculum Development to share the said Videos as supplemental learning materials to be used in the classrooms.

IN WITNESS WHEREOF, I have hereunto set our hands on this \_\_\_\_\_ day of \_\_\_\_\_, 2022 at \_\_\_\_\_.

\_\_\_\_\_  
Witness

\_\_\_\_\_  
Witness

**SUBSCRIBED AND SWORN TO** before me this \_\_\_\_\_ day of \_\_\_\_\_ 2022, at \_\_\_\_\_, Philippines, affiant \_\_\_\_\_, exhibiting his proof of identity as above stated.

Doc. No.: \_\_\_\_\_

Page No.: \_\_\_\_\_

Book No.: \_\_\_\_\_

Series of 2021

**Note: Please submit this form together with your entries on or before the Deadline of submission.**

**Enclosure No. 5    USEFUL RESOURCES FOR THE RSTF 2022: SIYENSIKULA COMPETITION**

**Junior Breakthrough Challenge**

<https://breakthroughjuniorchallenge.org/>

**How to Upload Videos in Youtube**

<https://www.youtube.com/watch?v=b5oZJa5kFzM>

**Maryam Tsegaye, Canada, Physics, Winner: 2020 Breakthrough Junior Challenge**

<https://www.youtube.com/watch?v=vg2rnjZ19PY>

**Andrew Li, USA, Math, Finalist: 2020 Breakthrough Junior Challenge**

<https://www.youtube.com/watch?v=ZfvUPrNz4O4>

**Tips for Breakthrough Junior Challenge | Q&A**

<https://www.youtube.com/watch?v=IqCMpePKGs4>

**Tips for Breakthrough Junior Challenge | Editing, Animation, and Style**

<https://www.youtube.com/watch?v=T7kLONPnXkQ>

**How to look for free photos, videos and animations:**

<https://creativecommons.org/licenses/>

**Other useful resources:**

<http://hillaryandales.com/bjresources/>

## Enclosure 6 Likha -Mechanics and Criteria

1. This competition is open to all Grade 9 - 12 students from both Public and Private Schools in the country.
2. The **first-place winners** at the Division level shall represent the division to the Regional STF competition as approved by the Screening Committee. Only one (1) entry is allowed per category.
3. The four (4) major categories are Life Science, Physical Science, Robotics and Intelligent Machines, and Mathematics and Computational Sciences. A total of 8 entries per SDO.

| Category | Life Science | Physical Science | Robotics and Intelligent Machines | Mathematics and Computational Sciences |
|----------|--------------|------------------|-----------------------------------|----------------------------------------|
|          | Individual   | Individual       | Individual                        | Individual                             |
|          | Team         | Team             | Team                              | Team                                   |

4. The official entries to the Regional Level Likha Competition should be properly endorsed by the Schools Division Superintendent through an endorsement letter on or before the deadline of submission at the Regional level.
5. Entries must be submitted via Google Classroom, as stated in Enclosure No. 10 on this memorandum.
6. The email should include the completely filled-out Project Form (Enclosure 8) and the other relevant files in PDF format, as stipulated in Enclosure 10 of this memorandum. Incomplete submission of the required documents may disqualify the division entries.
7. DepEd-RSTF Technical Working Committee reserves the right to remove, reject, or disqualify any entry if it infringes, misappropriates, or violates any rights of any third party including, without limitation, patent, copyright, trademark or right of privacy or publicity.
8. The Project Proposal will be **judged** according to the following criteria:

| Criteria                   | Description                                                                      | Weight |
|----------------------------|----------------------------------------------------------------------------------|--------|
| Originality and Innovation | The project provides novel and innovative solutions to issues in the environment | 20%    |
| Technical/ Scientific      | Sound scientific basis to generate new                                           | 20%    |

|                                 |                                                                               |      |
|---------------------------------|-------------------------------------------------------------------------------|------|
| Merit                           | knowledge or apply existing knowledge in an innovative manner                 |      |
| Community Connection and Impact | Outcomes are expected to address the issue or problem identified.             | 20%  |
| Excellence of method            | Solution and method proposed and cost effective, viable, timely and relevant. | 20%  |
| Presentation                    | Solution and method proposed and cost effective, viable, timely and relevant. | 20%  |
|                                 | Total                                                                         | 100% |

9. Project Format Descriptions:

- a. **Executive Summary-** a brief discussion about the proposal.
- b. **Introduction-** a declaration of the project and its idea and context to explain the goals and objectives to be reached and other relevant information that explains the need for the project and states the aims to describe the amount of work planned for implementation; refers to a simple explanation or depiction of the project that can be used as communication material.
  - Rationale- a brief analysis of the problems identified related to the project
  - Significance- refers to the alignment to national S&T priorities, strategic relevance to national development and addresses current issues and concerns.
  - Scientific Basis- scientific findings, conclusions or assumptions used as justification for the research.
  - Theoretical Framework- the structure that summarizes concepts and theories that serve as basis for the data analysis and interpretation of the research data.
  - Objectives- statements of the general and specific purposes to address the problem areas of the project.
- c. **Review of Literature** refers to the following: (a) related researches that have been conducted, state-of-the-art or current technologies from which the project will take off; (b) scientific/ technical merit; (c) results of related research conducted by the same

Project Leader, if any; (d) Prior Art Search, and; (e) other relevant materials.

d. Methodology - description of the design and engineering solution proposed to address the problem, the (a) variables or parameters to be measured and evaluated or analyzed; (b) treatments to be used and their layout; (c) experimental procedures and design; (d) statistical analysis; (e) evaluation method and observations to be made, strategies for implementation (Conceptual/ Analytical framework).

e. Expected Output and Potential Impact — discusses the possible outcome of the project, the target beneficiaries, socio and economic impact

f. Workplan and Target Deliverables- indicates the timeline of activities to be accomplished in the conduct of the project.

g. References — list of reference materials such as journals, designs and patents, and online sources. It should follow Chicago Manual of Style in referencing.

10. The paper format for *Likha* should be on A4 size white bond paper, 12 font, Times New Roman, double-spaced.

11. For the oral presentation, all participants will pass their three- to five-minute **Project Pitch Video** which will include important details to their project. This project pitch video shall be given to the judges in advance so that they have an advance information about the project.

12. The question-and-answer shall happen on the 2<sup>nd</sup> day of the RSTF. Each category shall be assigned a break-out room. All participants should be in the main room. In their turn for the Q&A, they will be brought to the breakout room. For LIKHA, everyone is requested to have their MS365 Office/Teams Account because we will be using MS Teams for our breakout rooms. Each Project Proponent/Group shall be given **10 minutes** with the panelists in their question-and-answer.

13. All the winning entries (TOP 5) will receive certificates and medals (TOP 3). The First-Place winner in each category will represent the National Capital Region to the NSTF for SY 2021-2022.

## Enclosure 7 Likha Rubric Evaluation Tool (Judging)

| CRITERIA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | POINT |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| <b>1. Originality and Innovation (20)</b><br>1. Does the project show originality and innovation in terms of:<br>a. proposed approach in solving the problem?<br>b. research design?<br>c. research methodology?<br>d. construction or design of a new or improved equipment?<br>2. Did the research project considered an issue/problem/gap that previous research projects did not addressed?<br>3. Does the project transforms an idea or solution into a creative, unique and major improvement in the current technology/ process/ product/technique/design ?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |       |
| <b>2. a. Technical/Scientific Merit (20)</b><br>(If an engineering project, please see 2b. Engineering Goals.)<br>1. Is the problem stated explicitly and concisely?<br>2. Was the approach to solve the problem supported by relevant, critical and logical related literatures (scientific basis/theoretical framework/mathematical theory)?<br>3. Did the finalist/team cite sufficient number of credible related literatures to provide a solid understanding and pre-requisite information for readers to better understand the research project?<br>4. Does the finalist/team recognize the projects' limitations?<br>5. Does the analysis of background information with depth?<br><b>b. Engineering Goals</b><br>1. Does the project have a clear objective?<br>2. Is the objective relevant to the potential user's needs?<br>3. Is the solution: workable? Acceptable to the potential user?<br>Economically feasible?<br>4. Could the solution be utilized successfully in design or construction of and end product?<br>5. Is the solution a significant Improvement over previous alternatives or application?<br>6. Will the solution be tested for performances under standardized protocols? |       |
| <b>3. Community Connection and Impact (20)</b><br>1. Did the project addressed a relevant research issue? (e. g. food safety, water conservation, cyber security, traffic/road congestion, health, disaster mitigation, agriculture and environment and others)<br><br>2. Did the student clearly defined the extent on how the research project can potentially benefit and meet the needs of the society?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |       |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| 3. Does the proposed solution gives value, effectiveness and efficiency to their target sector?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |
| <b>4. Excellence of Method (20)</b> <ol style="list-style-type: none"> <li>1. Was the research methods supported by relevant and credible related literatures?</li> <li>2. Was there an efficient, thorough, valid and reliable procedural plan to attain the research objectives?</li> <li>3. Are the variables clearly identified and defined?</li> <li>4. If controls were necessary, did the student recognize their need and will be used correctly? For the extraneous variables, did the student identified methods on how to monitor and keep these variables constant?</li> <li>5. Does the critical elements (e, g. treatments, techniques, protocols, replications, trials) of the research design and methods appropriately developed?</li> <li>6. Does the project specifically and clearly explained what and how quantitative and qualitative data will be collected?</li> <li>7. Does the project recognize ethical or safety issues and has adequate plans to manage risks?</li> <li>8. Does the project include appropriate protocols/procedures for waste disposal and data analysis?</li> <li>9. Is the proposed timeline/workplan appropriate, achievable, practical and feasible?</li> </ol> |  |
| <b>5. Presentation (20)</b> <ol style="list-style-type: none"> <li>1. How clearly and concisely does the finalist or team discussed his/her project and explain the rationale and procedures? Watch out of memorized speeches that reflect little understanding of principles.</li> <li>2. Does the written material reflect the finalist's or team's understanding of the research proposal?</li> <li>3. Are the important phases of the project presented in an orderly manner?</li> <li>4. How clearly is the rationale presented?</li> <li>5. How clearly are the research methods presented?</li> <li>6. Did the student used presentation resources as guide?</li> <li>7. Is the presentation professional with the use of colors, fonts and graphics?</li> <li>8. Did the student speak clearly, maintains eye contact and uses appropriate scientific language?</li> <li>9. Did the student provided clear, detailed and accurate answers to the questions given?</li> </ol>                                                                                                                                                                                                                               |  |
| TOTAL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |
| Signature over printed name of the Judge                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |

## Enclosure 8 Likha Project Proposal Template

### LIKHA PROJECT PROPOSAL TEMPLATE

|                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>(1) PROJECT PROFILE</b><br>Project Title: _____<br><br>Names of Project Proponent/s: _____<br><br>Region: _____ Division _____<br><br>School: _____ Grade Level: _____<br><br>Project Duration (number of months): _____<br>Email: _____ Contact number: _____ |                                                                                                                                                                                                                                                                                  |
| <b>(2) CATEGORY OF RESEARCH</b><br>_____ Physical Science<br>_____ Life Science<br>_____ Robotics and Intelligent<br>Machines<br>_____ Mathematics and<br>Computational Sciences<br><b>(3)</b><br>_____ Individual<br>_____ Team                                  | <b>(4) THEME</b><br>_____ Food Safety<br>_____ Water Conservation<br>_____ Renewable Energy<br>_____ Cyber Security<br>_____ Traffic / Road Congestion<br>_____ Health<br>_____ Disaster Mitigation<br>_____ Agriculture and Environment.<br>_____ Others (please specify) _____ |
| <b>(5) EXECUTIVE SUMMARY</b> (not to exceed 200 words)                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                  |
| <b>(6) INTRODUCTION</b>                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                  |
| <b>(6.1) RATIONALE/SIGNIFICANCE</b> (not to exceed 300 words)                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                  |
| <b>(6.2) SCIENTIFIC BASIS/THEORETICAL FRAMEWORK/MATHEMATICAL THEORY INVOLVED</b>                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                  |
| <b>(6.3) OBJECTIVES</b><br>General:<br>Specific:                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                  |
| <b>(7) REVIEW OF LITERATURE</b>                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                  |
| <b>(8) METHODOLOGY</b>                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                  |
| <b>(9) EXPECTED OUTPUTS AND POTENTIAL IMPACTS</b>                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                  |
| <b>(10) WORK PLAN AND TARGET DELIVERABLES</b>                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                  |
| <b>(11) REFERENCES</b>                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                  |

## Enclosure 9 SteMtokperiments- Mechanics and Criteria

1. This competition is open to all Junior and Senior School students from both Public and Private Schools in the country.
2. There will be two (2) categories: (a) Junior High School, and (b) Senior High School. The video entry should feature only one (1) Tiktok user.
3. Each division may send one (1) official entry from each category to the Regional STEMTokperiments Competition. They should be properly endorsed by their Schools Division Superintendent through an endorsement letter on or before the deadline of submission at the national level on June 27, 2022.
4. The participant must design an experiment proving or applying a Scientific concept, theory or law in a cheerful, lively and creative manner through a Tiktok video that is not more than one (1) minute.
5. The participant can explain the topic/ concept in English or Filipino.
6. The Tiktok Video must use the hashtags **#SCITOKPERIMENTS** and **#RSTFNCR2022** in uploading the video entry in Tiktok.
7. All contents and audio in the TikTok video must be original and are owned by the participant/s. All creative visual tools such as animations, simulations, physical demonstrations, or visual aids are allowed. The contestant will be held accountable to any issues that may arise with regard to the originality and accuracy of the content.
8. The following TikTok video format are highly recommended:
  - File size: The video should be up to 287.6 MB in size for iOS, or 72 MB on Android.
  - Orientation: TikTok is formatted to be viewed on a smartphone, so vertical video is best.
  - Dimensions: TikTok video dimensions should be 1080x 1920.
  - Aspect ratio: The aspect ratio should be that of a standard smartphone screen, 9:16. 1:1 is also possible, but it will not take up the whole screen.
  - File type: TikTok supports .mp4 and .mov files.
9. Entries must be submitted via **Google Classroom**, with guidelines of submission to Google Classroom stated on *Enclosure No. 10* on this memorandum.
10. DepEd-RSTF Regional Technical Working Committee reserves the right to remove, reject, or disqualify any entry if it: (a) violates the terms of service and privacy policy of Tiktok; and (b) infringes, misappropriates, or violates any rights of any third party including, without limitation, patent, copyright, trademark or right of privacy or publicity.

11. Entries submitted to "#SCITOKPERIMENTS do not represent DepEd and the NSTF Technical Working Group.

12. The Tiktok Video will be judged according to the following criteria:

| Criteria                                                                                                                                                                                                              | Percentage |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| Originality and Creativity<br><ul style="list-style-type: none"><li>• Video is original, creative and unique.</li></ul>                                                                                               | 30%        |
| Delivery/ Execution<br><br>Delivery is well planned with smooth transitions and edits.<br><br>Ideas are very organized and easily understood.<br><br>All sound and visual elements coincide with the video's content. | 30%        |
| Accuracy of Content<br><br>All information being delivered is accurate and relevant.                                                                                                                                  | 40%        |
| Total                                                                                                                                                                                                                 | 100%       |

10. All the winning entries (TOP 5) will receive certificates and medals (TOP 3). The First-Place winner in each category will represent the National Capital Region to the NSTF for SY 2021-2022.

## Enclosure 10: Omnibus Guidelines in Submission of Entries for RSTF

1. **Teacher-advisers** of each qualifying entries for Siyensikula, STEMTokExperiment, and LIKHA (Life Science, Physical Science, Robotics and Intelligent Machines, and Mathematics and Computational Sciences) in their respective divisions shall enroll in the Google Classroom for Regional Science and Technology Fair 2022 with the classcode **m34mx5z** or through: <https://classroom.google.com/c/NTEzOTYyNTMzMjQx?cjc=m34mx5z>

Only teacher-advisers shall be allowed to be a part of the Google Classroom and shall be given access to submit their entries and the corresponding attachments. Teacher-advisers should use their official DepEd e-mail accounts to enroll in the Google Classroom.

2. The submission of entries shall be on **June 27, 2022** from 8:00 AM to 11:59 PM only through the submission links in the Google Classroom. **The submission link shall open at that day and end at the same day.** Each contest category has separate submission links.

The table below summarizes the attachments needed for the official entries of each division in the different contests in the Regional Science and Technology Fair:

|                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Siyensikula</b><br><br><b>(1 entry per Division)</b>    | (1) Indorsement letter signed by the SDS,<br>(2) the name of the participant,<br>(3) YouTube video link attachment of the video entry,<br>(4) parent consent,<br>(5) a pdf file of the video script along with the references in Chicago Manual of Style, plagiarism check and<br>(6) Certification (Enclosure No.4 Waiver and Certification)                                                                                                                       |
| <b>LIKHA</b><br><b>(1 entry per Division per category)</b> | (1) Completely filled-out Project Form (Enclosure 8 Likha Project Proposal Template) in A4 format, 12 font, Times New Roman, double-spaced.<br>(2) LIKHA – Rubric Evaluation Tool (Final Judging) in the Division Level (Enclosure No. 7 Likha Rubric Evaluation Tool for Judging)<br>(3) Three to five-minute Video Pitch of the Project Proponents in mp4 format<br>(4) Plagiarism Check in pdf format<br>(5) Endorsement letter from the Schools Division Office |
| <b>#STEMTOKPERIMENTS</b>                                   | (1) the name/ s of the participant/s;<br>(2) Tiktok video link attachment of the video entry;<br>(3) a pdf file of the video script along with the                                                                                                                                                                                                                                                                                                                  |

|                                                |                                                                                                                                                                                                                                                                       |
|------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>(1 entry from JHS and 1 entry from SHS)</b> | <p>references in Chicago Manual of Style. Notarized Certification (Enclosure No. 4 Waiver and Certification)</p> <p>(4) Plagiarism Check of video script in pdf format</p> <p>(5) Endorsement letter from the Schools Division Office</p> <p>(6) Parental Consent</p> |
|------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

All submissions should follow the following file name format for easy reference:

SIYENSIKULA\_DivisionCode\_FileName  
SCITOKPERIMENTS\_DivisionCode\_Filename  
LIKHA\_DivisionCode\_Category\_FileName

For the categories of LIKHA, the codes are the following:

LSI – Life Science Individual  
LST – Life Science Team  
PSI – Physical Science Individual  
PST – Physical Science Team  
RIMI – Robotics and Intelligent Machines Individual  
RIMT – Robotics and Intelligent Machines Team  
MCSI – Mathematics and Computational Sciences Individual  
MCST – Mathematics and Computational Sciences Team

For the School Division Codes, the codes are the following:

DO1 – Caloocan City  
DO2 – Las Piñas City  
DO3 – Makati City  
DO4 – Malabon City  
DO5 – Mandaluyong City  
DO6 – Manila City  
DO7 – Marikina City  
DO8 – Muntinlupa City  
DO9 – Navotas City  
DO10 – Paranaque City  
DO11 – Pasay City  
DO12 – Pasig City  
DO13 – Quezon City  
DO14 – San Juan City  
DO15 – Taguig City and Pateros  
DO16 – Valenzuela City

3. All participants are required to submit a signed Photograph, Video, and Voice Recording Consent, Waiver, Indemnity and Release Form to be attached to their entries. These enclosures shall be attached with the entries

submitted to the Google Classroom. Copies of these waivers are attached in Enclosure 11 of this memorandum.

## **Enclosure 11: Photograph, Video and Voice Recording Consent, Waiver, Indemnity and Release Form**

### ***Photographs, Videos and Recordings***

- I hereby grant permission to the Regional and National Science and Technology Fair - Technical Working Committee and its representatives to photograph and video me, and otherwise capture my image, and to make recordings of my voice during the conduct of the Regional and National Science and Technology Fair.
- I further grant the RSTF/NSTF Technical Working Committee and its representatives the right to reproduce, use, exhibit, display, broadcast and distribute and create derivative works of these images and recordings in any media now known or later developed as well as my name for promoting or publicizing the Regional and National Science and Technology Fair and its activities and for administrative, educational or research purposes.
- I acknowledge that DepEd owns all rights to the images and recordings.

First and Last Name (Printed) \_\_\_\_\_

Name of School or Organization (Printed) \_\_\_\_\_

E-mail \_\_\_\_\_ Phone \_\_\_\_\_

Parent/Guardian Name (if under age 18) \_\_\_\_\_

### ***Waiver, Indemnity and Release***

- I hereby waive any right to inspect or approve the use of the images or recordings or of any written copy. I also waive any right to royalties or other compensation arising from or related to the use of the images, recordings or materials.
- I hereby release, defend, indemnify and hold harmless the DepEd and the Regional and National Science and Technology Fair Technical Working Group and their officials, employees or agents from and against any claims, damages or liability arising from or related to the use of the images, recordings or materials, including but not limited to claims of defamation, invasion of privacy, or rights of publicity or copyright infringement, or any misuse, distortion, blurring, alteration, optical illusion or use in composite form that may occur or be produced in taking, processing, reduction or production of the finished product, its publication or distribution.
- I am 18 years of age or older and I am competent to contract in my own name. I have read this document before signing below, and I fully understand the contents, meaning and impact of this consent, waiver, indemnity and release.

Name over Printed Signature (if 18 years or older) \_\_\_\_\_

Date: \_\_\_\_\_

Name over Printed Signature of Parents/Guardian (if under age 18) \_\_\_\_\_

Date: \_\_\_\_\_

**Enclosure 12 REGIONAL SCIENCE AND TECHNOLOGY FAIR 2022**  
**Technical Working Group**

|                                       |                                                                                                |
|---------------------------------------|------------------------------------------------------------------------------------------------|
| Registration and Attendance Committee | Princeville S. Lanza, SDO Parañaque<br>SDO Navotas and<br>Selected Math Head Teachers/Teachers |
| Documentation Committee               | Mary Ann M. Guevarra, SDO Las Piñas and<br>Selected Math Head Teachers/Teachers                |
| Program and Invitation Committee      | Jemwel Dela Paz, SDO Marikina<br>Selected Math Head Teachers/Teachers                          |
| Evaluation Committee                  | John Keeneth M. Ferrera, SDO TaPat and<br>Selected Math Head Teachers/Teachers                 |

|       | Category                     | In-Charge                                                                     |                                                                             | Regional Technical Working Group                                                                                       |
|-------|------------------------------|-------------------------------------------------------------------------------|-----------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|
|       |                              | EPS-in-Charge                                                                 | NCR Research Advisers Association Officer-in-Charge                         |                                                                                                                        |
| DAY 1 | Siyensikula                  | Dr. Manolo Davantes<br>Dr. Bradley Loo<br><br>Math Supervisors                | All NCRRAA Officers                                                         | Karmila C. Ortega, SDO Malabon<br><br>Joselle Ira I. Liwanag, SDO San Juan<br><br>Selected Math Teachers/Head Teachers |
|       | STEMTokExperiment            | Dr. Maripaz Mendoza<br><br>Mr. Hernan Apurada                                 |                                                                             | Ralph C. Malacad, SDO Pasay City<br><br>Dionicio M Pacpaco, SDO Makati City                                            |
| DAY 2 | Life Science Individual/Team | Dr. Maria Pilar O. Capalongan<br>Ms. Jessica Mateo<br>Dr. Emitterio Macarrubo | Don King Evangelista, SDO Navotas<br><br>Ma. Pilar Carmona, SDO Quezon City | Arvin D. Pacon, SDO Caloocan<br><br>Rugiemay C. Vargas SDO Quezon City                                                 |

|       |                                                      |                                                                                                                                                       |                                                                                  |                                                                         |
|-------|------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|-------------------------------------------------------------------------|
|       | Physical Science<br>Individual/Team                  | Ms. Liza Alvarez<br>Ms. Rebecca Roxas<br>Dr. Corazon Javier<br>Dr. Marivic Almo<br>Dr. Raquel Austero                                                 | Maria Cecilia Santiago,<br>SDO Manila<br><br>Luzviminda Dinglasan,<br>SDO Manila | Ronald C. Dumapias,<br>SDO Pasig<br><br>Cherry B. Rodriguez, SDO Manila |
|       | Robotics and Intelligent Machines<br>Individual/Team | Dr. Lea Prondo<br>Mr. Russell Samson<br>Dr. Armida Oblinada                                                                                           | Virgilio Alcayde,<br>SDO Quezon City<br><br>Ruth Bonagua,<br>SDO Las Piñas       | Raymond S. Vallejo, SDO Valenzuela<br><br>SDO Muntinlupa                |
|       | Mathematics and Computational Sciences               | Division Math Supervisors                                                                                                                             | Selected Math Teachers/Head Teachers                                             |                                                                         |
| Day 3 | Culminating and Awarding Ceremony                    | Math and Science Supervisors, NCR Research Advisers Association Officers, Regional, Selected Math Head Teachers /Teachers and Technical Working Group |                                                                                  |                                                                         |

*Note: Research Advisers Association Officers and selected TWGs will be in the onsite venue (TBA) on July 6-8,2022.*