Republic of the Philippines
Department of Education
Region V – Bicol
SCHOOLS DIVISION OFFICE OF CATANDUANES

DIVISION MEMORANDUM:
OSDS-CID-DM___486___ s. 2021

TO	:	Public Schools District Supervisors/In-Charge of Districts Elementary and Secondary School Heads All concerned
FROM	:	**SUSAN S. COLLANO** Asst. Schools Division Superintendent Officer-In-Charge Office of the Schools Division Superintendent
DATE	:	**October 27, 2021**
SUBJECT	:	**2021 DIVISION MATH FAIR**

1.   In consonance with Regional Memorandum No. 114 s. 2021 dated October 21, 2021 titled 2021 Regional Math Fair, this division through the Curriculum Implementation Division will conduct the **2021 Division Math Fair** on **November 19, 22-24, 2021** via online platform with the theme *Making Mathematics Relevant in this Time of Pandemic.*

2.   The fair which aims to promote the value and relevance of Mathematics among the learners and teachers of SDO Catanduanes especially in this time of pandemic will be conducted following the matrix below:

ACTIVITY	No. of Entries per District (Elementary) /School (Secondary)	DATE OF SUBMISSION OF OFFICIAL ENTRIES IN THE DIVISION LEVEL	PLATFORM FOR THE CONDUCT OF THE ACTIVITY/ SUBMISSION OF ENTRIES
1. MATHdokyu (Video Production of Best Practice)-Teachers			
• Kinder to Grade 6	1	November 19, 2021	divisionmathfair2021@gmail.com
• Junior High School	1	November 19, 2021	divisionmathfair2021@gmail.com
• Senior High School	1	November 19, 2021	divisionmathfair2021@gmail.com

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2. Math-aLAS (LAS Making Contest) -Teachers			
• Key Stage 1 (Grades 1-3 only)	1	November 19, 2021	divisionmathfair2021@gmail.com
• Key Stage 2 (Grade 4-6)	1	November 19, 2021	divisionmathfair2021@gmail.com
• Key Stage 3 (Grades 7-10)	1	November 19, 2021	divisionmathfair2021@gmail.com
• Key Stage 4 • (Grades 11-12)	1	November 19, 2021	divisionmathfair2021@gmail.com

3.   Due to time constraint, the identified participants in the Regional Virtual Workshop and Orientation on e-Modulo Art to be conducted on November 4-5, 2021 will be the representative of this Division to the Regional Contest. A division virtual workshop and orientation on e-Modulo Art will be conducted on a later date.

4.   Judging of the division entries will be on **November 22-23, 2021**. The **First-place winners** will represent the Division in the 2021 Regional Math Fair. The Division Virtual Awarding Ceremony will be on **November 24, 2021** via the SDO Catanduanes FB page.

5.   The following enclosures are provided for reference and guidance.

   o   Enclosure 1 Mechanics and Contest Guidelines for the MATHdokyu (Video Production of Best Practices)
   o   Enclosure 2 Mechanics and Contest Guidelines for the MA TH-aLAS (LAS-making)
   o   Enclosure 2a Least Learned Competencies in Mathematics
   o   Enclosure 3 Mechanics and Contest Guidelines for the e-Modulo Art Design
   o   Enclosure 4 Technical Working Group
   o   Enclosure 5 Media Release Consent Form (Teacher/s)
   o   Enclosure 6 Certificate of Originality
   o   Enclosure 7 Certification

6.   Those who are involved in this activity shall follow existing IATF guidelines in the respective locality and observe minimum health protocols such as wearing of face mask, face shield, and shall maintain proper social distancing at all times.

7.   The participants are required to submit necessary documents as provided in Enclosures 5, 6, 7 (as applicable) to Jezrahel T. Omadto, EPS Math, (divisionmathfair2021@gmail.com) not later than November 19, 2021, 5:00 p.m. Non-submission of all required documents to the indicated email address on the deadline set is a ground for disqualification.

8.   A planning conference with the Division Technical Working Group will be conducted on November 12, 2021 at the CID Office.

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9.   Expenses incurred relative to the participation and conduct of this activity maybe charged to local funds/MOOE and/or other sources subject to the usual accounting and auditing rules and regulations.

10.   For information and immediate dissemination.

Encl.:
References:
To be indicated in the Perpetual Index
       Under the following subjects:

jto/ DM **2021 DIVISION MATH FAIR**
005/October 27, 2021

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Enclosure 1:

MECHANICS AND CONTEST GUIDELINES FOR MATHdokyu
(VIDEO PRODUCTION OF BEST PRACTICES)

1. The competition is open to all teachers whether from public or private schools.
2. Each division may submit a video of the Best Practice/s implemented by the teachers in teaching Mathematics in each category: Kindergarten to Grade 6, Junior High School, and Senior High School. Each team should be composed of at most three (3) teachers only (including the narrator/presenter).
3. The video should cover the following parts as indicated in this order:
   a. **Introduction**
      ✓ State background information of the best practices with the reason why the project was carried out.
      ✓ Basis of the concept behind the project
      ✓ Discuss the problems that will be addressed
      ✓ Highlight specific objectives and the significance of the project
   b. **Presentation**
      ✓ Present the best practices employed during the time of pandemic
      ✓ have the description of the practices
      ✓ persons involved
      ✓ the target beneficiaries
      ✓ the time duration of the project
   c. Strategies employed
      ✓ Discuss how the project was implemented
      ✓ Present strategies done to attain the goals of the project
   d. **Results and Discussion**
      ✓ Present the outcomes and the outputs of the activities
      ✓ Discuss the results of the activities
      ✓ Describe and interpret the significance of the results
      ✓ State whether objectives were met
   e. **Impact to teaching and learning in this time of pandemic**
      ✓ Note of the changes and improvement brought by the project
      ✓ Describe the possible long-term effect of the project
   f. **Sustainability Plan**
      ✓ Describe strategies to continue the project
      ✓ Recommend on how the project will be long-term
      ✓ Suggest related activities and projects to improve the current project
   g. **References**
      ✓ *references used must be mentioned and must be properly cited*
4. The video should be 7 to 10 minutes and the recording should be in MP4 or avi format.
5. There should only be one narrator/presenter in the video.
6. The video should also include the following: Name of School/District, name of the members of the team and the school head/PSDS. This information should be placed in the last part of the video.
7. Each district(elementary)/school(secondary) may send 1 official entry in the Division Competition. One entry per category only.

8. Each entry should be placed in a folder with a file name DOKYU_ School/District_Category and shall be sent via email provided. The file name of the video file should be DOKYU_Category. The folder shall also contain a separate word file containing the following information:

Complete Name of the Members of the Team: <u>Given Name Middle Initial Last Name</u>
    Respective Positions:
    School
     School Head:
    PSDS
    Coach: (Complete Name/School/Position)

9. For a non-biased judging, each entry shall be assigned a unique code prior to judging.
10. Only entries submitted on or before 5:00 p.m. of November 19, 2021 will be judged by the members of the board of judges.
11. In case of a tie in the first, second, or third place, the members of the board of judges shall break the tie. Only one entry will be declared as first, second, and third place, respectively. More than one winner will only be allowed for the fourth and fifth place.
12. The decision of the board of judges is FINAL and IRREVOCABLE.
13. The video presentation will be judged on these categories.

A. Best Video presentation
Criteria:
a. Relevance to teaching and learning in this time of Pandemic 20%
(Relevance - the video presentation must address the theme/topic)
b. Originality
    20%
Creativity/Originality- the video must reflect the entrants' own words and may include personal experiences and thoughtful observations. Video must reflect that the entrant has carefully analyzed the details of the presentation.
c. Creativity
    20%
d. Workmanship
    20%
Workmanship/Production - the video is well planned with smooth transitions and edits. The sound is expertly balanced and easy to hear. All sound and visual elements blend with the video's message.
e. Over -all Impact
    <u>20%</u>
Total
100%

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B. Best Presenter/Narrator

Criteria

a.	Diction	–	20%
b.	Originality	–	20%
c.	Creativity	–	20%
d.	Poise and bearing	–	20%
e.	Delivery	–	20%
		Total:	100%

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Mechanics and Contest Guidelines for Math-aLAS (LAS-making Contest)

1. The competition is open to all teachers, Elementary, Junior HS and SHS from both public and private schools. Maximum of 2 teachers will collaborate from each district(elementary)/school (secondary) on a single entry.
2. The teachers are free to use any arrangement as to the contents but should be guided by LRMDS guidelines as to the technicalities like font style, font size, spacing, etc.)
3. Activities and illustrations should be original.
4. The participants shall select the topic for their Learning Activity Sheets (LAS) from the least learned competencies. (please see enclosure 2a)
5. Entries per division for Key stage 1 (Grades 1 to 3 only) shall be in their respective mother tongue. Entries for Key stages 2, 3, and 4 shall be in English.
6. Each district(elementary)/school(secondary) may send a maximum of 1 official entry in the Division Competition per category.
7. Each entry should be placed in a folder with a file name LAS_District/School_Grade level and shall be sent via email. The pdf file of the LAS should have a file name Title of the LAS_District/School_Key Stage. The folder shall also contain a separate word file containing the following information:
   Complete Name of Writer/s: <u>Given Name Middle Initial Last Name</u>
   School:
   Position:
   School Head:
   PSDS:
   Coach: (Complete Name/School/Position)

8. For a non-biased judging, each entry shall be assigned a unique code prior to judging.
9. Only entries submitted on or before 5:00 p.m.of November 19, 2021 will be judged by the members of the board of judges.
10. In case of a tie in the first, second, or third place, the members of the board of judges shall break the tie. Only one entry will be declared as first, second, and third place, respectively. More than one winner will only be allowed for the fourth and fifth place.
11. The decision of the board of judges is FINAL and IRREVOCABLE.

Judging Criteria

A. Content (30%)	CRITERIA (Analytic Rubric)				
	5	4	3	2	1
1. Content is suitable to the student's level of development. *(e.g. from Knowing phase, Understanding phase and Doing phase)*					
2. Material contributes to the achievement of specific objectives					

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		5	4	3	2	1
	of the subject area and grade/year level for which it is intended.					
3.	Material provides for the development of higher cognitive skills such as critical thinking, creativity, learning by doing, inquiry, problem solving, etc.					
4.	Material is free of ideological, cultural, religious, racial, and gender biases and prejudices.					
5.	Material enhances the development of desirable values and traits.					

B. Presentation and Organization (30%)	CRITERIA (Analytic Rubric)				
	5	4	3	2	1
1. Presentation is engaging, interesting, and understandable.					
2. There is logical and smooth flow of ideas.					
3. Vocabulary level is adapted to target reader's likely experience and level of understanding.					
4. Length of sentences is suited to the comprehension level of the target reader.					
5. Sentences and paragraph structures are varied and interesting to the target reader.					

C. Format (20%)	CRITERIA (Analytic Rubric)				
	5	4	3	2	1
1. Size of letters is appropriate to the intended user.					
2. Spaces between letters and words facilitate reading.					
3. Font used is appropriate.					
4. Output is of good quality (i.e., no misplaced letters/words, even density, correct alignment).					

D. Illustration, Layout and Design (20%)	CRITERIA (Analytic Rubric)				
	5	4	3	2	1
1. Simple and easily recognizable.					
2. Clarify and supplement the text.					
3. Realistic / appropriate colors.					
4. Attractive and appealing.					
5. Culturally relevant					

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Least Learned Competencies in Mathematics
SY 2020-2021

Grade Level	Least Learned Competencies in Mathematics
1	• Reads and writes numbers up to 100 in symbols and in words • Visualizes and solves one-step routine and non-routine problems involving addition of whole numbers including money with sums up to 99 using appropriate problem-solving strategies • Visualizes and finds the missing number in an addition or subtraction sentence using a variety of ways • Solves problems involving time (days in a week, months in a year, hour, half-hour and quarter-hour)
2	• Solves routine and non-routine problems involving addition of whole numbers including money with sums up to 1000 using appropriate problem-solving strategies and tools. • Solves multi-step routine and non-routine problems involving addition and subtraction of 2-to 3-digit numbers including money using appropriate problem-solving strategies and tools • Solves routine and non-routine problems involving division of numbers by 2,3,4,5 and 10 and with any of the other operations of whole numbers including money using appropriate problem-solving strategies and tools. • Solves routine and non-routine problems involving length
3	• Solves routine and non-routine problems involving subtraction without or with addition of whole numbers including money using appropriate problem-solving strategies and tools. • Solves routine and non-routine problems involving division of 2-to 4-digit numbers by 1- to 2- digit numbers without or with any of the other operations of whole numbers including money using appropriate problem solving strategies and tools • Represents, compares and arranges dissimilar fractions in increasing or decreasing order • Visualizes and represents and solves routine and non-routine problems involving conversions of common units of measure
4	• Solves multi-step routine and non-routine problems involving division and any of the other operations of whole numbers including money and using appropriate problem-solving strategies and tools • Solves routine and non-routine problems involving addition and/or subtraction of fractions using appropriate problem-solving strategies and tools • Solves routine and non-routine problems in real-life situations involving perimeter of squares and rectangles, triangles, parallelograms and trapezoids • Solves routine and non-routine problems involving the volume of a rectangular prism
5	• Performs a series of more than two operations on whole numbers applying parenthesis, multiplication, division, addition,

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		subtraction (PMDAS) or grouping, multiplication, division, addition, subtraction (GMDAS) correctly
		• Solves routine and non-routine problems involving division without or with any of the other operations of decimals and whole numbers including money using appropriate problem solving strategies and tools
		• Formulates the rule in finding the next term in a sequence
		• Solves routine and non-routine problems involving experimental probability
6		• Solves multi-step routine and non-routine problems involving division and any of the other operations of decimals, mixed decimals and whole numbers including money using appropriate problem-solving strategies and tools
		• Solves problems involving direct proportion, partitive proportion and inverse proportion in different contexts such as distance, rate and time using appropriate strategies and tools
		• Solves word problems involving measurement of surface area
		• Solves routine and non-routine problems involving volume of solids
7		• Represents real-life situations and solves problems involving real numbers
		• Solves problems involving equations and inequalities in one variable
		• Solves problems involving sides and angles of polygon
		• Uses appropriate statistical measures in analyzing and interpreting statistical data
8		• Solves problems involving rational algebraic expressions
		• Solves problems involving systems of linear inequalities in two variables
		• Proves statements on triangle congruence
		• Proves inequalities in a triangle
9		• Solves equations transformable to quadratic equations (including rational algebraic equations)
		• Solves problems involving radicals
		• Proves the conditions for similarity of triangles
		1.1 SAS similarity theorem
		1.2 SSS similarity theorem
		1.3 AA similarity theorem
		1.4 Right triangle similarity theorem
		1.5 Special right triangle theorems
		• Solves problems involving oblique triangles
10		• Solves problems involving polynomials and polynomial equations
		• Graphs and solves problems involving circles and other geometric figures on the coordinate plane
		• Solve problems involving probability
		• Formulates statistical mini-research
11 General Math		• solves problems involving logarithmic functions, equations, and inequalities.
		• solves logarithmic equations and inequalities.
		• solves rational equations and inequalities.

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	• solves problems involving simple and compound interests. • solves problems involving business and consumer loans (amortization, mortgage).
11/12 Statistics and Probability	• solves problems involving mean and variance of probability distributions. • solves problems involving sampling distributions of the sample mean. • defines the sampling distribution of the sample mean using the Central Limit Theorem. • illustrates: (a) null hypothesis; (b) alternative hypothesis; (c) level of significance; (d) rejection region; and (e) types of errors in hypothesis testing. • formulates the appropriate null and alternative hypotheses on a population mean. • identifies the appropriate rejection region for a given level of significance when: (a) the population variance is assumed to be known; (b) the population variance is assumed to be unknown; and (c) the Central Limit Theorem is to be used.

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Division Technical Working Group

Jezrahel T. Omadto	Over-All Chairman	
Program and Invitation		**Certificates Committee**
Maybelle V. Rubio	Chairman	Jogene San Juan
Carol P. Gil	Member	Kathlyn Clemente
Documentation Committee		**Tabulation/Results Committee**
Josalie T. Tonio	Chairman	Lyra C. Tusi
Mary Rose V. Sta. Rosa	Member	Jonel G. Aznar
Division Virtual Awarding Committee		
Jennifer Metica	Chairman	
Myla Cordial	Member	
Jogene San Juan		
Kathlyn Clemente		

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Enclosure 5:

MEDIA RELEASE CONSENT FORM

l, the undersigned, hereby grant the Department of Education — 2021 Regional Math Fair the right to record, film, photograph, audiotape or videotape of me, my work, and performances.

I also grant to the right to edit, use, and reuse said products for nonprofit purposes including use in print, on the internet, and all other forms of media.

I also hereby release the Department of Education and its agents and employees from all claims, demands, and liabilities whatsoever in connection with the above.

I certify that I have read the Media Consent and Release Form and fully understand its terms and conditions.

Agreed and accepted by

Signature of Participant: _____Date: _____

Address of Participant: _____

CP Number: _____

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Enclosure 6:

CERTIFICATE OF ORIGINALITY

This is to certify that this output/material is an outcome of my/our own independent and creative work. The content and materials used are free from infringement with proper authorization and attribution. For borrowed materials substantively used, permission was sought from the copyright owner and/or author for its use. To the best of my/our knowledge and belief, it contains no material previously published.

Name of Author(s) and Signature:

_____

_____

_____

Kind/nature and title of the output/material (please check):

___e-Modulo Art   Title (if applicable) _____

___LAS   Title of the LAS: _____

___ Video Production   Title (if applicable) _____
_____

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Enclosure 7:

CERTIFICATION

KNOW ALL MEN BY THESE PRESENTS:

That l/We_____

_____

_____

of _____author (s) in the
_____ hereby certify
that my/our entry is my/our own and is new and original to the best of our
knowledge.

l/We certify that we give permission for DepEd-ROV to share the said
output/material as supplemental materials to be used in the classrooms.

In WITNESS WHEREOF, I/We have hereunto set our hands on this _____day of
2021 at _____.

_____   _____
Witness   Witness

SUBSCRIBED AND SWORN TO before me this _____ day of _____,
2021, at _____Philippines, affiant_____
exhibiting his proof of identity as stated above.

Doc. No.: _____
Page No.: _____
Book No.: _____
Series of 2021

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