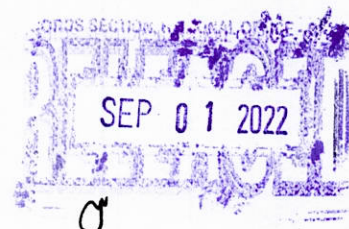




Republic of the Philippines
Department of Education
CARAGA REGION



September 1, 2022

REGIONAL MEMORANDUM

No. 0747, s. 2022

To: SCHOOLS DIVISION SUPERINTENDENTS
This Region

REGION-WIDE ADMINISTRATION OF DIAGNOSTIC TEST AND LEARNING GAP
ASSESSMENT IN SCIENCE FOR SY 2022-2023

1. Relative to the Regional Memorandum No. 712, s. 2022 (Curation of Sukdanan's High-Quality Questions for the Development of Diagnostic Tests in Science for SY 2022-2023), the field is hereby informed of the region-wide administration of the diagnostic tests and learning gap assessment in Science within the following timelines:

Reproduction of Test Materials-	September 5-9, 2022
Administration-	September 12-16, 2022
Checking and Item Analysis-	September 19-23, 2022
Reporting of Data-	September 26-30, 2022

2. The administration of the said assessments aims to:

- determine the prior knowledge of the learners on the Most Essential Learning Competencies (MELCs) in Science for SY 2022-2023;
- determine the learning gaps in Science in SY 2021-2022;
- inform teachers' learning remediation strategies in addressing the unique learning gaps of their learners; and
- provide baseline data for exit assessment (post-test) in Science to be administered in the Academic Quarter 4 of SY 2022-2023.

3. In this Memorandum, **diagnostic test** is defined as a non-graded pre- and post-test designed for a specific grade level to be taken by the learners in the intended grade level (ex. Diagnostic Test in Science 3 administered in Science 3 learners for SY 2022-2023). **Learning gap assessment** is a non-graded test similar to exit assessment designed for a specific grade level to be taken by the learners in the previous School Year (ex. Diagnostic Test in Science 3 administered in Science 3 learners of SY 2021-2022, currently Grade 4 learners).

4. The developed and quality assured test materials (Table of Specifications, Test Questionnaires, and Answer Key) have the following test construction specifications:

- **Item Categorization:** Bloom's Taxonomy, and 21st Century Skills (NAT-like)
- **Item Distribution:** Equal across cognitive process dimensions
- **Test Length:** Grade 3-30 items; Grade 4-40 items; Grades 5 to 12-50 items
- **Physical Standards:** Similar to Sukdanan's (Grades 3 and 4-Alfabeto at 16 pts and 14 pts, respectively; Grade 5 to 12-Bookman Old Style at 11 pts, A4 portrait orientation, 1-inch margin in all sides, vertical options arranged alphabetically or by option length, single spacing with single space after each item, completely multiple choice type of test, and in full interrogative



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questions, Chicago Manual of Style referencing, highly textual and graphical questions, item construction was based from T. Bothell's 14 Rules for Writing Multiple-choice Questions)

- **Item Analysis:** Frequency and mean percentage score
- **Evaluation:** NAT Benchmarks
- **Pilot Testing:** Spearman-Brown Prophecy Formula using the split-half reliability method (select items only).

5. Using DepEd emails only, the test materials are accessible at:
Elementary: <https://bit.ly/ScienceDiagnosticsElem2022-2023>
Junior High School: <https://bit.ly/ScienceDiagnosticsJHS2022-2023>
Senior High School: <https://bit.ly/ScienceDiagnosticsSHS2022-2023>
6. Answer sheets customized for various grade levels are provided in the Enclosure A. Learners' accomplished answer sheets shall be checked by the subject teacher through manual checking or through ZipGrade app. The YouTube tutorial on how to use the ZipGrade app is available at <https://www.youtube.com/watch?v=9hkwPSteVsk&t=11s>.
7. After the item analysis, teachers shall accomplish the **Item Analysis Form** found in the Enclosure B. The said form shall be submitted to the District Science Coordinator for consolidation using the **District Diagnostic Test Consolidation Form** found in the Enclosure C. Education Program Supervisors/Coordinators in Science shall consolidate the district data using the Division Diagnostic Test Consolidation Form at <https://bit.ly/DivisionScienceDiagnosticsConsoForm>. The Division EPS/Coordinators in Science are encouraged to set specific deadlines appropriate to their context following the timelines in provision 1 of this Memorandum.
8. For concerns and clarifications, you may email the Regional Science Coordinator Mr. Kevin Hope Z. Salvaña at kevinhope.salvana@deped.gov.ph.
9. Immediate dissemination of this Memorandum to all concerned is highly desired.


MA. GEMMA MERCADO LEDESMA
Regional Director

Encls.: As stated.

Reference: RM No. 712, s. 2022

To be indicated in the Perpetual Index

under the following subjects:

ASSESSMENT

EVALUATION

SCIENCE EDUCATION

CLM/khzs
09/01/2022

Answer Sheets for Grade 3 (ready to print)

Name

School

Grade Level

Section

Score



**DepEd-Caraga
Sukdanan
Diagnostic Test**

ZIPGRADE.COM

Grade-3 Answer Sheet (4782)

1 (A) (B) (C) (D) 12 (A) (B) (C) (D) 23 (A) (B) (C) (D)

2 (A) (B) (C) (D) 13 (A) (B) (C) (D) 24 (A) (B) (C) (D)

3 (A) (B) (C) (D) 14 (A) (B) (C) (D) 25 (A) (B) (C) (D)

4 (A) (B) (C) (D) 15 (A) (B) (C) (D) 26 (A) (B) (C) (D)

5 (A) (B) (C) (D) 16 (A) (B) (C) (D) 27 (A) (B) (C) (D)

6 (A) (B) (C) (D) 17 (A) (B) (C) (D) 28 (A) (B) (C) (D)

7 (A) (B) (C) (D) 18 (A) (B) (C) (D) 29 (A) (B) (C) (D)

8 (A) (B) (C) (D) 19 (A) (B) (C) (D) 30 (A) (B) (C) (D)

9 (A) (B) (C) (D) 20 (A) (B) (C) (D)

10 (A) (B) (C) (D) 21 (A) (B) (C) (D)

11 (A) (B) (C) (D) 22 (A) (B) (C) (D)

Key

(A) (B) (C) (D)

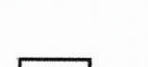
Name

School

Grade Level

Section

Score



**DepEd-Caraga
Sukdanan
Diagnostic Test**

ZIPGRADE.COM

Grade-3 Answer Sheet (4782)

1 (A) (B) (C) (D) 12 (A) (B) (C) (D) 23 (A) (B) (C) (D)

2 (A) (B) (C) (D) 13 (A) (B) (C) (D) 24 (A) (B) (C) (D)

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11 (A) (B) (C) (D) 22 (A) (B) (C) (D)

Key

A	B	C	D
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**DepEd-Caraga
Sukdanan
Diagnostic Test**

Name

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Grade Level

School

Section

1000

Score

ZIPGRADE.COM

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- 2 (A) (B) (C) (D) 16 (A) (B) (C) (D) 30 (A) (B) (C) (D)
- 3 (A) (B) (C) (D) 17 (A) (B) (C) (D) 31 (A) (B) (C) (D)
- 4 (A) (B) (C) (D) 18 (A) (B) (C) (D) 32 (A) (B) (C) (D)
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- 6 (A) (B) (C) (D) 20 (A) (B) (C) (D) 34 (A) (B) (C) (D)
- 7 (A) (B) (C) (D) 21 (A) (B) (C) (D) 35 (A) (B) (C) (D)

- 8 (A) (B) (C) (D) 22 (A) (B) (C) (D) 36 (A) (B) (C) (D)
- 9 (A) (B) (C) (D) 23 (A) (B) (C) (D) 37 (A) (B) (C) (D)
- 10 (A) (B) (C) (D) 24 (A) (B) (C) (D) 38 (A) (B) (C) (D)
- 11 (A) (B) (C) (D) 25 (A) (B) (C) (D) 39 (A) (B) (C) (D)
- 12 (A) (B) (C) (D) 26 (A) (B) (C) (D) 40 (A) (B) (C) (D)
- 13 (A) (B) (C) (D) 27 (A) (B) (C) (D)
- 14 (A) (B) (C) (D) 28 (A) (B) (C) (D)
- Key

Key

A B C D



**DepEd-Caraga
Sukdanan
Diagnostic Test**

Name

Grade Level

1000

School

1000

Section

Score

1000

ZIPGRADE.COM

- 1 (A) (B) (C) (D) 15 (A) (B) (C) (D) 29 (A) (B) (C) (D)
- 2 (A) (B) (C) (D) 16 (A) (B) (C) (D) 30 (A) (B) (C) (D)
- 3 (A) (B) (C) (D) 17 (A) (B) (C) (D) 31 (A) (B) (C) (D)
- 4 (A) (B) (C) (D) 18 (A) (B) (C) (D) 32 (A) (B) (C) (D)
- 5 (A) (B) (C) (D) 19 (A) (B) (C) (D) 33 (A) (B) (C) (D)
- 6 (A) (B) (C) (D) 20 (A) (B) (C) (D) 34 (A) (B) (C) (D)
- 7 (A) (B) (C) (D) 21 (A) (B) (C) (D) 35 (A) (B) (C) (D)

- 8 (A) (B) (C) (D) 22 (A) (B) (C) (D) 36 (A) (B) (C) (D)
- 9 (A) (B) (C) (D) 23 (A) (B) (C) (D) 37 (A) (B) (C) (D)
- 10 (A) (B) (C) (D) 24 (A) (B) (C) (D) 38 (A) (B) (C) (D)
- 11 (A) (B) (C) (D) 25 (A) (B) (C) (D) 39 (A) (B) (C) (D)
- 12 (A) (B) (C) (D) 26 (A) (B) (C) (D) 40 (A) (B) (C) (D)
- 13 (A) (B) (C) (D) 27 (A) (B) (C) (D)
- 14 (A) (B) (C) (D) 28 (A) (B) (C) (D)
- Key (A) (B) (C) (D)

Key

A B C D

Answer Sheets for Grades 5 to 12 (ready to print)

Grades 5 to 12 Answer Sheet (4640)

Name School

Grade Level Section

Score


**DepEd-Caraga
Sukdanan
Diagnostic Test**

ZIPGRADE.COM

- 1 ☐ A ☐ B ☐ C ☐ D 18 ☐ A ☐ B ☐ C ☐ D 35 ☐ A ☐ B ☐ C ☐ D
- 2 ☐ A ☐ B ☐ C ☐ D 19 ☐ A ☐ B ☐ C ☐ D 36 ☐ A ☐ B ☐ C ☐ D
- 3 ☐ A ☐ B ☐ C ☐ D 20 ☐ A ☐ B ☐ C ☐ D 37 ☐ A ☐ B ☐ C ☐ D
- 4 ☐ A ☐ B ☐ C ☐ D 21 ☐ A ☐ B ☐ C ☐ D 38 ☐ A ☐ B ☐ C ☐ D
- 5 ☐ A ☐ B ☐ C ☐ D 22 ☐ A ☐ B ☐ C ☐ D 39 ☐ A ☐ B ☐ C ☐ D
- 6 ☐ A ☐ B ☐ C ☐ D 23 ☐ A ☐ B ☐ C ☐ D 40 ☐ A ☐ B ☐ C ☐ D
- 7 ☐ A ☐ B ☐ C ☐ D 24 ☐ A ☐ B ☐ C ☐ D 41 ☐ A ☐ B ☐ C ☐ D
- 8 ☐ A ☐ B ☐ C ☐ D 25 ☐ A ☐ B ☐ C ☐ D 42 ☐ A ☐ B ☐ C ☐ D

- 9 ☐ A ☐ B ☐ C ☐ D 26 ☐ A ☐ B ☐ C ☐ D 43 ☐ A ☐ B ☐ C ☐ D
- 10 ☐ A ☐ B ☐ C ☐ D 27 ☐ A ☐ B ☐ C ☐ D 44 ☐ A ☐ B ☐ C ☐ D
- 11 ☐ A ☐ B ☐ C ☐ D 28 ☐ A ☐ B ☐ C ☐ D 45 ☐ A ☐ B ☐ C ☐ D
- 12 ☐ A ☐ B ☐ C ☐ D 29 ☐ A ☐ B ☐ C ☐ D 46 ☐ A ☐ B ☐ C ☐ D
- 13 ☐ A ☐ B ☐ C ☐ D 30 ☐ A ☐ B ☐ C ☐ D 47 ☐ A ☐ B ☐ C ☐ D
- 14 ☐ A ☐ B ☐ C ☐ D 31 ☐ A ☐ B ☐ C ☐ D 48 ☐ A ☐ B ☐ C ☐ D
- 15 ☐ A ☐ B ☐ C ☐ D 32 ☐ A ☐ B ☐ C ☐ D 49 ☐ A ☐ B ☐ C ☐ D
- 16 ☐ A ☐ B ☐ C ☐ D 33 ☐ A ☐ B ☐ C ☐ D 50 ☐ A ☐ B ☐ C ☐ D
- 17 ☐ A ☐ B ☐ C ☐ D 34 ☐ A ☐ B ☐ C ☐ D

Key

☐ A ☐ B ☐ C ☐ D

Grades 5 to 12 Answer Sheet (4640)

Name School

Grade Level Section

Score


**DepEd-Caraga
Sukdanan
Diagnostic Test**

ZIPGRADE.COM

- 1 ☐ A ☐ B ☐ C ☐ D 18 ☐ A ☐ B ☐ C ☐ D 35 ☐ A ☐ B ☐ C ☐ D
- 2 ☐ A ☐ B ☐ C ☐ D 19 ☐ A ☐ B ☐ C ☐ D 36 ☐ A ☐ B ☐ C ☐ D
- 3 ☐ A ☐ B ☐ C ☐ D 20 ☐ A ☐ B ☐ C ☐ D 37 ☐ A ☐ B ☐ C ☐ D
- 4 ☐ A ☐ B ☐ C ☐ D 21 ☐ A ☐ B ☐ C ☐ D 38 ☐ A ☐ B ☐ C ☐ D
- 5 ☐ A ☐ B ☐ C ☐ D 22 ☐ A ☐ B ☐ C ☐ D 39 ☐ A ☐ B ☐ C ☐ D
- 6 ☐ A ☐ B ☐ C ☐ D 23 ☐ A ☐ B ☐ C ☐ D 40 ☐ A ☐ B ☐ C ☐ D
- 7 ☐ A ☐ B ☐ C ☐ D 24 ☐ A ☐ B ☐ C ☐ D 41 ☐ A ☐ B ☐ C ☐ D
- 8 ☐ A ☐ B ☐ C ☐ D 25 ☐ A ☐ B ☐ C ☐ D 42 ☐ A ☐ B ☐ C ☐ D

- 9 ☐ A ☐ B ☐ C ☐ D 26 ☐ A ☐ B ☐ C ☐ D 43 ☐ A ☐ B ☐ C ☐ D
- 10 ☐ A ☐ B ☐ C ☐ D 27 ☐ A ☐ B ☐ C ☐ D 44 ☐ A ☐ B ☐ C ☐ D
- 11 ☐ A ☐ B ☐ C ☐ D 28 ☐ A ☐ B ☐ C ☐ D 45 ☐ A ☐ B ☐ C ☐ D
- 12 ☐ A ☐ B ☐ C ☐ D 29 ☐ A ☐ B ☐ C ☐ D 46 ☐ A ☐ B ☐ C ☐ D
- 13 ☐ A ☐ B ☐ C ☐ D 30 ☐ A ☐ B ☐ C ☐ D 47 ☐ A ☐ B ☐ C ☐ D
- 14 ☐ A ☐ B ☐ C ☐ D 31 ☐ A ☐ B ☐ C ☐ D 48 ☐ A ☐ B ☐ C ☐ D
- 15 ☐ A ☐ B ☐ C ☐ D 32 ☐ A ☐ B ☐ C ☐ D 49 ☐ A ☐ B ☐ C ☐ D
- 16 ☐ A ☐ B ☐ C ☐ D 33 ☐ A ☐ B ☐ C ☐ D 50 ☐ A ☐ B ☐ C ☐ D
- 17 ☐ A ☐ B ☐ C ☐ D 34 ☐ A ☐ B ☐ C ☐ D

Key

☐ A ☐ B ☐ C ☐ D

ITEM ANALYSIS FORM

Directions:

1. Retrieve and check the answer sheets using ZipGrade app, or through manual checking. An item analysis can also be done automatically using the said app.
2. If the test questionnaire is used as a **Learning Gap Assessment**, follow steps number 3 and 6 only. If the test questionnaire is used as a **Diagnostic Test**, follow steps number 7 to 11.
3. For Learning Gap Assessment, determine which of the items have mean percentage score (MPS) lower than 75% and refer them to their associated Most Essential Learning Competencies in the Table of Specifications.
4. To compute for the MPS, use this equation, $MPS = (\text{No. of learners who got the correct answer} / \text{Total no. of students}) \times 100\%$.
5. **Design appropriate interventions and/or remediations for MELCs that are least-achieved.**
6. Complete the table below to easily map the MELCs that need intervention or remediation.

Item number	No. of learners who got the correct answer	Mean Percentage Score (MPS)	Is the MPS below 75%? (YES/NO)
1			
2			
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47			
48			
49			
50			

7. For Diagnostic Tests, start by determining the proficiency level of the learners.
To do this, refer the score of your learner against the point brackets below.

30-item Test (for Grade 3 only)
27-30 points = Highly Proficient
23-26 points = Proficient

- 15-22 points = Nearly Proficient
- 8-14 points = Low Proficient
- 0-7 points = Not Proficient

- 40-item Test (for Grade 4 only)**
- 36-40 points = Highly Proficient
 - 30-35 points = Proficient
 - 20-29 points = Nearly Proficient
 - 10-19 points = Low Proficient
 - 0-9 points = Not Proficient

- 50-item Test (for Grades 5 to 12)**
- 45-50 points = Highly Proficient
 - 38-44 points = Proficient
 - 25-37 points = Nearly Proficient
 - 13-24 points = Low Proficient
 - 0-12 points = Not Proficient

8. Count the total number of students who belong to the different proficiency levels. Use the table below. Make sure that the total number of learners who belong to the different proficiency levels is equal to the number of test takers.

Number of learners per proficiency levels				
Highly Proficient Learners	Proficient Learners	Nearly Proficient Learners	Low Proficient Learners	Not Proficient Learners

9. Compute the MPS for items associated with the 21st-century skills, use this equation, $MPS = (No. \text{ of learners who got the correct answer} / Total \text{ no. of students}) \times 100\%$.
10. Get the average MPS of the items associated to the different 21st-century skills. Example, if there are four items for Critical Thinking with MPSs of 82, 84, 91, and 80, the average MPS is 84.25. The equation is $Average \text{ MPS} = \text{Sum of individual MPSs} / Total \text{ no. of items associated to a 21st-century skill}$. Open the TOS to determine the items associated to the different 21st-century skills.
11. The 21st-century skills are asterisked in the TOS. Compute the average MPS for the three 21st-century skills—Problem Solving*, Information Literacy**, and Critical Thinking***. Do this in the table that follows, row in gray is given as an example.

	Average MPS (%)	Proficiency Level
Example	82%	Proficient
Problem Solving		
Information Literacy		
Critical Thinking		

Legend: Proficiency Levels according to MPS

- 90-100% = Highly Proficient
- 75-89% = Proficient

50-74%	= Nearly Proficient
25-49%	= Low Proficient
0-24%	= Not Proficient

DISTRICT DIAGNOSTIC TEST CONSOLIDATION FORM

SCIENCE 3

School Name	Number of learners per proficiency levels				Average MPS (%)		
	Highly Proficient	Proficient	Nearly Proficient	Low Proficient	Problem Solving	Information Literacy	Critical Thinking
1							
2							
3							

SCIENCE 4 (create separate tables per Science Subject)

School Name	Number of learners per proficiency levels				Average MPS (%)		
	Highly Proficient	Proficient	Nearly Proficient	Low Proficient	Problem Solving	Information Literacy	Critical Thinking
1							
2							
3							

Note: For schools with multiple number of sections per grade level, add the number of students per proficiency level. Likewise, determine the average MPS for the 21st-century skills across sections. Create multiple tables by Science subject. Separate the table for every SHS Science subject. Add rows if necessary to accommodate more schools

Consolidated by:

Concurred:

District Science Coordinator

Public Schools District Supervisor/In-charge