



Republic of the Philippines

Department of Education

Region VII, Central Visayas

DIVISION OF CEBU PROVINCE

Sudlon, Lahug, Cebu City



DIVISION MEMORANDUM

No 410 S. 2015

July 3, 2015

**2015 MTAP - DepEd SATURDAY PROGRAMS IN MATHEMATICS FOR
REGULAR AND TALENTED PUPILS/STUDENTS**

**To: Assistant Superintendent
Education Supervisors / Coordinators
District Supervisors / OICs
Elementary and Secondary School Heads**

1. Attached is Regional Memorandum No. 157, s. 2015 dated June 3, 2015 entitled, **2015 MTAP – DepEd Saturday Programs in Mathematics for Regular and Talented Pupils/Students.**
2. Immediate and wide dissemination of this Memorandum is desired.


ARDEN D. MONISIT, Ed.D.
School Division Superintendent

Telephone Numbers:

Schools Division Superintendent: (032) 255-6405
Asst. Schools Division Superintendent: (032) 414-7457
Accounting Section: (032) 254-2632
Disbursing Section: (032) 255-4401

Website : www.depedcebuprovince.com

E-mail Add : depedcebuprovince@yahoo.com

DepEd Advisory No. 157, s. 2015

June 3, 2015

In compliance with DepEd Order No. 8, s. 2013
this Advisory is issued for the information of DepEd officials,
personnel/staff, as well as the concerned public.
(Visit www.deped.gov.ph)

2015 MTAP-DEPED SATURDAY PROGRAMS IN MATHEMATICS
FOR REGULAR AND TALENTED PUPILS/STUDENTS

The Mathematics Teachers Association of the Philippines (MTAP) Inc. will be offering the *2015 MTAP-DepEd Saturday Programs in Mathematics for Regular and Talented Pupils/Students*.

The first program is intended for *regular pupils/students*. This will be conducted on six Saturdays, 8:00 a.m. to 12:00 noon *from July 25 to August 29, 2015*. The sessions will be for pupils/students who belong from the 25th to the 85th percentile at each grade/year level from Grades 1 to 10. A written permit from the parents is necessary.

The first program aims to:

1. provide the pupils and students the opportunity to explore Mathematics without the threat of tests;
2. review the materials covered last school year to enable them to do well in Mathematics in the present school year; and
3. prepare the Grade 6 pupils and Grade 10 students for entrance examinations for Grade 7 and college levels.

The second program is for mathematically *talented pupils/students*. This will be conducted on seven Saturdays, 8:00 a.m. to 12:00 noon *from October 10, 17, November 7, 14, 21, 28 to December 5, 2015*. The sessions will be for pupils/students who belong to the top 15th percentile. The school principal shall endorse the pupils/students who wish to participate, along with a written permit from their parents/guardians.

The second program aims to:

1. prepare the Grades 6 and 10 learners for entrance examinations for Grade 7 and college levels; and
2. prepare them for the Metrobank-MTAP-DepEd Math Challenge Competition.

More information may be inquired from:

The Mathematics Teachers Association of the Philippines (MTAP) Inc.
039 Oxford St. corner Columbia Street
Cubao, Quezon City
Telephone Nos.: (02) 912-5249; (02) 709-0447
Email Address: iccoronel_mtaphil@yahoo.com

ANNOUNCEMENT

The 2015 MTAP-DepEd Saturday Program in Mathematics for Regular Students* will be conducted on six (6) Saturdays from July 25 to August 29, 2015**. The sessions will be for the 25th to the 85th percentile of the class at each grade level, Grade 1 to Grade 10. A Center may opt to take participants only from Grade 3 for the Regular Program. The classes will be from 8:00 to 12:00 noon. Students are required to attend in **uniform and with their school ID**. In case the uniform is in the wash, students may attend in their P.E. uniform.

There will be a fee of ₱200.00*** for the whole series of sessions which may be paid at any Center to the contact person indicated on or before July 18, (October 3 for the Talented) Saturday. Strict adherence to the deadline is necessary to prevent any disorder and waste of time in organizing classes on the first day. Drop-ins disrupt classes and often make classes too big for a class. Students may choose any Center convenient for them.

The program aims at providing students the opportunity to do mathematics with some open-problem solving without the threat of tests, giving students an intensive review of the material they covered in the previous year and the first weeks of this school year to cope more readily with lessons this year, and prepare the Grade 6 and Grade 10 students for entrance exams for Grade 7 and College respectively.

[Write the names of the Centers (Schools) with the names of Coordinators here.]

Parents' Permission

I understand the conditions indicated above and I am allowing my son/daughter, _____ who is studying in Grade _____ at _____ to join the classes for regular students at _____.

(Please indicate the Center)

Signed: _____ Tel./Cell No. _____
Please sign over printed name. (Guardian)

{ Endorsed: _____ School: _____ }
Principal For the Talented Program only

_____ Tel./Cell No. _____
Name of person to contact for messages

Please xerox if additional copies are needed.

*Change to "Mathematically Talented Students" for the** October 10, 17, November 7, 14, 21, 28, to December 5, 2015 Program. *** ₱250.00 Endorsement of principal is needed only for the talented.

Guidelines for the Division/Private Schools Association Coordinator

The Division Math Supervisor/Head of Private Schools Association or the one designated by him/her is the over-all coordinator.

The over-all coordinator is the responsible to:

1. Make all necessary arrangements with the MTAP.
2. Receive one set of materials from the MTAP and duplicate the materials for the Centers so that each individual student/pupil will receive a copy. Scratch paper is to be provided with the session materials.
3. Give the necessary orientation to trainers who may be teaching for the first time. Provide each one with a copy of the paper on Cooperative Learning.
4. Decide whether Center Coordinators may allow payment for the fee to be given in installment.
5. Receive the remittances from the different Centers of the Division/Association and give the Center Trainers their honoraria as specified in #11, Enclosure 3.
6. Give each Center coordinator 10% of whatever is turned over; 5% to the principal of the Center. [In general, the Center Coordinator may teach one class.]
7. Remit to the MTAP three percent (3%) of the GROSS PROCEEDS of the Division/Association. This arrangement is for Saturday programs outside the National Capital Region. [MTAP takes the role of the Division for the whole NCR]. The over-all coordinator gets 2% of the GROSS PROCEEDS or ₱3000 for the regular program, and ₱3500 for the talented if this is larger than the 2%.
8. All expenses are taken from the 95% of the gross proceeds, such as the cost of duplicating materials, scratch paper, chalk, etc. the honoraria of trainers, janitors, security guards, etc.
9. The Division is free to decide on how to use the balance of the 95% of the GROSS PROCEEDS. What is given in #6 is only a suggestion.
 - a. There is no need for the over-all coordinator to provide the MTAP how the proceeds are spent. It only asks for the number of students and the GROSS PROCEEDS.
 - b. The MTAP would just like to remind each Division to set aside a portion of the NET PROCEEDS for the 2016 Math Challenge so that there is no need to ask for contributions from participating schools. If several Divisions in a Region implement the Saturday Programs, they could also decide to set aside a portion for the Regional Math Challenge if they so desire.

Guidelines for Trainers

1. Be at the Center at least 15 minutes before the beginning of sessions to take your class to the classroom. On the first session, come even earlier to help organize the classes. As much as possible, take your class to their room at the beginning of the session and after recess. Take them down for recess, when it is time, and at the end of the session. Do not leave them alone in the room.
2. See to it that the students in the class are all in uniform. In case the uniform is in the laundry, tell your students to wear their P.E. uniform or even a white T-shirt and blue or black pants or jeans and hang their ID around their neck. It is important that only participants in the sessions enter the school premises for the sessions for the protection of the students.
3. Always be thoroughly prepared for classes. For this purpose, always ask your Center coordinator for the materials at least two days, preferably one week, before the session. If necessary, take the trouble to go to your coordinator for the materials. We have had complaints about tutors not prepared for the sessions. Please avoid being too dependent on the material. The pupils must see that you know your material well. The "Hints" which contain solutions of more difficult problems are prepared to help you.
4. Avoid sitting down during sessions especially at the beginning. If you really need to sit down, do it for a few minutes but not for long periods. Go around while the students are doing seatwork.
5. Use cooperative learning. In the first session, tell your students to choose a partner with whom they are to work. During seatwork, partners are to work together but they may discuss with the pair in front of them or the one behind. Allow students to help each other. For Challenge problems, allow two pairs to work together. Tell them to bring a calculator even a borrowed one. Study well the paper on Cooperative Learning.
6. Review well each principle involved before you ask the students to do the exercises or give seatwork. Let them explain to each other. Let them pretend the partner does not know the procedure being learnt and the other will explain to him/her. Then they exchange roles. Ask students to justify/explain answers that depend on principles. Your objective is to help your students to learn by themselves. The less your students need you, the more successful as a teacher you are. For regular students, go more slowly and use more illustrations than for talented ones.
7. Make sure answers to problems are explained. Do not allow the good ones to monopolize the sessions. There have been complaints that answers to problems are not explained because the good students are allowed just to give the answers without explanations. Also, some teachers just give answers without explanation.
8. Show concern for your students. Make them feel that you want to see them always present. Make students from the same school look after each other.
9. For the elementary and First Year, teach them mental computation and estimation, and do a lot of it at the beginning of each session. Review rounding of numbers. Use games and competitions.
10. Use Naming the Baby as a form of drill. Even teachers find this game exciting. This can be for any of the operations and is played as a relay. Groups of 4-6 line up with the first in line holding a piece of chalk. When the teacher says, "The last name of the Baby is...", the one holding the chalk writes the required numbers, gives the chalk to the next in line and goes to the back of the line.

Addition: Give the sum, e.g. 27. Each member of the team writes two numbers whose sum is 27. At first allow the use of 1-digit and 2-digit numbers at the same time.

Subtraction: Give the difference

Multiplication: Give a number like 36 and each member gives two numbers whose product is 36. Chose numbers with many pairs of factors.

Division: Give the quotient. Each member of the team gives the dividend and divisor whose quotient is the given number. **This is easier than multiplication but it needs knowledge of multiplication.**

Guidelines for the Center Coordinator Enclosure

A Center is a school chosen because it is within one jeep/bus ride from several schools.

The following guidelines apply to the Center Coordinator.

1. Be a model for your trainers on punctuality and discipline. Be at the center at least half an hour before a session starts.
2. Coordinate with your Supervisor/Head of Schools Association in choosing trainers for your Center. Grades 5 & 6 should be taught by Grade 7 teachers though for regular students, a Grade 6 teacher may teach Grade 5.
3. Make sure there is only one trainer per class for all sessions. This is to insure continuity of what is being taught and the students get used to the teacher.
4. Get the training materials early enough to make sure you can give each of your trainers a copy of the materials at least 2 days before the session so that they can prepare properly.
5. Tell teachers in your district they must give you the number of students/pupils attending the training one week before the first session so that you can ask for the correct number of hand-outs. They can ask the parents to sign first the form and indicate when they will pay if this is allowed for the Division.
6. Make sure all students are in uniform with the ID well displayed. This is for the protection of the students. If the uniform is in the laundry, allow the students to use their P.E. uniform or a white T-shirt with black/dark-blue jeans and ID. This is to make sure that non-participants do not enter the school premises.
7. Make sure each student has a copy of the materials for the session. Give them scratch paper [from the over-all coordinator] and allow them the use of a calculator even if the students have to share.
8. Call the attention of any trainer who does not come in time or fails to attend to the discipline of his/her students. Make sure all trainers use cooperative learning.
9. During sessions, go around every now and then to see that the trainers are well prepared. [If you are teaching, make a quick round when your pupils are doing group work.] If you find that any trainer comes to the sessions unprepared, please do not take that teacher as trainer again in future programs. Tell your trainers not to sit down especially in the first part of the session. They may do it briefly while the students are doing seatwork. Tell them never to begin the session by making the pupils study the questions or solve problems. This means the trainers are not prepared.
10. Tell trainers to begin each class actively by a prayer, song and/or a game.
11. Suggested honoraria are as follows or as decided by the Division.
 - a. security guard, if any, ₱50 per session.
 - b. 8 or fewer classes - ₱75 and 9 or more classes - ₱100 for a janitor
 - c. a trainer gets the following:
 - * 15-17 students - ₱300 per session,
 - * 18-22 students - ₱350 per session,
 - * 23-27 students - ₱400 per session
 - * 28-32 students - ₱450 per session
 - * 33-37 students - ₱500 per session
 - * 38 or more - ₱550 per session

Each trainer takes care of his/her own snacks.

The MTAP prefers bigger classes, if possible 36-40 so that the teacher will not have time to pay special attention to any student or group. What is desired is that students develop the ability to learn by themselves through cooperative learning. The more students learn without the help of the teacher, the more successful

The following guidelines apply to the Center Coordinator.

1. Be a model for your trainers on punctuality and discipline. Be at the center at least half an hour before a session starts.
2. Coordinate with your Supervisor/Head of Schools Association in choosing trainers for your Center. Grades 5 & 6 should be taught by Grade 7 teachers though for regular students, a Grade 6 teacher may teach Grade 5.
3. Make sure there is only one trainer per class for all sessions. This is to insure continuity of what is being taught and the students get used to the teacher.
4. Get the training materials early enough to make sure you can give each of your trainers a copy of the materials at least 2 days before the session so that they can prepare properly.
5. Tell teachers in your district they must give you the number of students/pupils attending the training one week before the first session so that you can ask for the correct number of hand-outs. They can ask the parents to sign first the form and indicate when they will pay if this is allowed for the Division.
6. Make sure all students are in uniform with the ID well displayed. This is for the protection of the students. If the uniform is in the laundry, allow the students to use their P.E. uniform or a white T-shirt with black/dark-blue jeans and ID. This is to make sure that non-participants do not enter the school premises.
7. Make sure each student has a copy of the materials for the session. Give them scratch paper [from the over-all coordinator] and allow them the use of a calculator even if the students have to share.
8. Call the attention of any trainer who does not come in time or fails to attend to the discipline of his/her students. Make sure all trainers use cooperative learning.
9. During sessions, go around every now and then to see that the trainers are well prepared. [If you are teaching, make a quick round when your pupils are doing group work.] If you find that any trainer comes to the sessions unprepared, please do not take that teacher as trainer again in future programs. Tell your trainers not to sit down especially in the first part of the session. They may do it briefly while the students are doing seatwork. Tell them never to begin the session by making the pupils study the questions or solve problems. This means the trainers are not prepared.
10. Tell trainers to begin each class actively by a prayer, song and/or a game.
11. Suggested honoraria are as follows or as decided by the Division.
 - a. security guard, if any, ₱50 per session.
 - b. 8 or fewer classes - ₱75 and 9 or more classes - ₱100 for a janitor
 - c. a trainer gets the following:
 - * 15-17 students - ₱300 per session,
 - * 18-22 students - ₱350 per session,
 - * 23-27 students - ₱400 per session
 - * 28-32 students - ₱450 per session
 - * 33-37 students - ₱500 per session
 - * 38 or more - ₱550 per session

Each trainer takes care of his/her own snacks.

The MTAP prefers bigger classes, if possible 36-40 so that the teacher will not have time to pay special attention to any student or group. What is desired is that students develop the ability to learn by themselves through cooperative learning. The more students learn without the help of the teacher, the more successful is the teacher. Smaller classes indicated above are only tolerated when there are too few students for a given grade.

Cooperative Learning in the Teaching of Mathematics

Introduction: Unmotivated students do not learn. While some students are properly motivated due to interest, parents' encouragement, the students' perception of their abilities, etc. a good many students are not properly motivated. Hence, one major role of a teacher is to provide classroom incentives. One way that is currently recognized as having great potential to motivate students and help achieve the new goals for math education is cooperative learning.

What is cooperative learning? - This is a method by which students learn together in small groups of two or four. The principal idea behind cooperative learning is that by making students work together instead of competing, "peer norms will come to favor rather than oppose high achievement". Instead of competing, students help one another.

Research shows that students usually dislike classmates who do well in class since academic success benefits only the successful students. When competitive grading, as when grading 'on the curve' is used, any student's success lessens the chances of the others. Because of this, students develop attitudes and norms that tend to oppose academic success. Successful students may be isolated and laughed at as "bookworms" or "teacher's pets". Without sufficient encouragement, such students may stop trying to excel in order to be one with their peers. One way to offset such tendencies among students is to employ group learning.

Advantages of group learning: In view of the new goals for mathematics teaching proponents claim, and they have data to support their claims, that cooperative learning is essential to promote students' problem solving competency, ability to communicate and reason mathematically, develop the ability to perceive the value of mathematical thinking and knowledge of how to apply mathematics to new situations. Thus, they propose that while competitive and individual learning may continue, side by side it, cooperative learning must be fully utilized. The two must supplement each other. Cooperative learning must be used to achieve the enumerated goals for the following reasons.

1. Concepts and skills in mathematics can best be learned by the active involvement of the students. But, active learning requires intellectual stimulation and challenge. These are best supplied in discussion with peers.
2. Mathematics is a social subject, problem solving can be fun to students only if they can share their answers or check their results against others' answers. Explaining to a groupmate the strategy to be used in solving a particular problem usually results in making it clearer to the one explaining and may even enable him to get a deeper insight into the structure of the problem.
3. Cooperative learning promotes higher achievement in mathematics than competitive and individualistic learning. It promotes initiative, discovery and the development of higher level reasoning in metacognitive thought.
4. By working cooperatively, students are not afraid to try and take risks and thus, students in learning groups tend to like their groupmates. Positive peer relationships result in a higher level of self esteem and self-sufficiency.

Cooperative learning models: Dr. Stephen Kagan, who has had much success in the use of structured cooperative learning recommends 57 structures but for our big classes we may use only a few. Divide the class in pairs and make two pairs form a group of four. The 4 members are numbered 1, 2, 3 and 4. The groups of 4 are made to choose a name for their team. The names are written on 2 cm x 4 cm strips of cardboard and placed in a small box.

On four 3" x 4" pieces of cardboard, the teacher writes 1, 2, 3, 4. At the end of a seatwork, the teacher puts the cards face downward on the table and chooses one. If the number picked is [3], the teacher announces "Numbers 3, get ready". The teacher then picks a team name. No.3 of the team named will answer the first question/problem. This procedure is followed whenever an oral answer is asked.

The following structures are recommended. They are slightly modified for our use.

1. Pairs Share: Students work in pairs in solving exercises and problems. Partners may solve individually but must compare their answers. If they find any difference, they must do their best to find who has made a mistake.
2. Think, Pair, Share: This is used when the teacher asks a thought question. The teacher asks a question. When she says "Think", all will try to answer the question mentally. When the teacher says "Pair", partners will share their answers to the question; and when the teacher says "Share", he/she picks one of the 4 numbers and a team name. This structure is good after a new procedure has been taught and some seatwork has been done on it.
3. Pairs Check: After an algorithm/procedure has been explained and illustrated, the teacher gives an even number of exercises to be done. Partners alternately act as TUTOR and TUTEE. The TUTEE solves while the TUTOR looks on. It is only when the TUTEE asks that the TUTOR will teach.
4. Pairs Square: The team of four works together on more difficult exercises/problems or on homework.
5. Thinking Heads Together: The teacher poses a difficult question or wants a more difficult definition/procedure to be explained or summarized. Each team member thinks of the answer. The teacher then changes the question into a statement. The partners in front turn their bodies to face the partners behind while those behind bend forward so that the four can discuss together. For example, the teacher says - "How do we find the GCF of two or more numbers?". After a several seconds, he/she says - "Teams, make sure each member knows how to find the GCF of two or more numbers."


Some points to remember: 1. The teacher must promote interdependent work and insure that no single student does all work, or that no student would leave the work to the others. It is necessary that students learn that the group will succeed only if they work together.

2. Students must be guided to learn interpersonal and small group skills. These skills include leadership, decision making, trust building, communication and conflict management.
3. Students should, now and then, reflect on how well the group is functioning, tell each other frankly, what members' actions are helpful and what are not.
4. To make the students think, during the group work, the teacher should ask: "What are you doing?" "Why are you doing that?" "How will that lead to the solution?"

Teacher's role in implementing cooperative learning: The teacher acts as both an academic and a classroom manager. In planning the lessons, the teacher specifies both the academic and social skills to be developed. The teacher should observe each group to see their successes and their failures. The following rules should be established.

1. The group may ask for help only if all have the same question to ask.
2. The correct answer will not be given but help will be given to understand the problem better.

Signals: The class will agree upon what signal will be used by the teacher or any team member may use to get the attention of the others. Two signals that may be used are: 1. three hand claps 2. a hand is raised up. Then, any one who sees the raised hand will also raised his hand. The class waits until all have their hands raised. The class may agree to use any other signal they think best.


Prepared by Sr. Iluminada C. Coronel, f.m.m.
MTAP President