

October 15, 2019

Division Memorandum

No. 635, s. 2019

ADDENDUM/CORRIGENDUM TO:

**DIVISION MEMORANDUM No. 625, S. 2019 (2019-DIVISION SCIENCE FAIR
AND COMPETITION- SECONDARY LEVEL)**

**To : Assistant Superintendents
Chiefs, SGOD and CID
Education Supervisors/Coordinators
Secondary School Heads**

- 1. Please see attached addendum/corrigendum and or changes to Division Memorandum No. 625, s. 2019 (2019- Division Science Fair and Competition- Secondary Level).**
- 2. Immediate dissemination of this Memorandum is desired.**


RHEA MAR A. ANGTUD, ED.D.
Schools Division Superintendent 



DIVISION SCIENCE FAIR AND COMPETITION 2019
October 18, 2019
Argao National High School




WORKING COMMITTEES

ON-THE-SPOT SCIENCE PROCESS COMPETITION		
Chairman	Rumell E. Engbino	Vito NHS
Members	Jade C. Bacon	Minglanilla SHS
	Cris Dela Peña	Carmen NHS
	Arlyn Millan	Sogod NHS
LINE TRACING		
Chairman	Rowena Espinosa	Badian NHS
Members	Charle Magne M. Laurence	Carmen NHS
	Jean Morales	Minglanilla SHS
SUMOBOT		
Chairman	Ivy Ursal	San Remigio NHS
Member	Vanessa Montes	Carmen NHS
	Cleofe Villanueva	Boljoon NHS
MRT SOCCER		
Chairman	Rima Joy D. Tejam	Buanoy NHS
Members	Fatima Joy Masong	San Remegio NHS
	Romin Sanchez	Minglanilla SHS
MRT CAR RACING		
Chairman	Shiela Mae G. Martinez	Argao NHS
Members	Jane Cedeño	Minglanilla SHS
	Joewana Me M. Enriquez	Vito NHS
MRT PUSH-OUT GAME (BUMPER CAR)		
Chairman	Carmelita Maria N. Maambong	Argaon NHS
Members	Racquel A. Vasaya	Oslob NHS
	Analie Fatima E. Sanchez	Badian NHS

- Contest In-charge for Sumobot, Line Tracing, MRT Games are responsible for the making of the playing fields.

Noted by:


JUVIMAR E. MONTOLO
 EPS-Science

DIVISION SCIENCE FAIR AND COMPETITION 2019 MY ROBOT TIME (MRT) COMPETITIONS

I. MRT RACING MECHANICS

1. The competition is open to all the recipient of the MRT kit.
2. The participants should be officially registered by the registration committee. There should only be three (3) Junior High School participants from each school.
3. The participants are required to provide and bring their own 6 pieces of AA batteries and MRT Kit for the competition.
4. The participants are given the freedom to choose who will control the Robocar.
5. Parts of the Robocar is only limited to what is available in the MRT Kit. Thus MRT Kits will be checked right before the competition proper.
6. The race will be done in two (2) batches due to the limited number of channels (maximum of 8 channels) for the remote controller. Participating schools will be divided in to two through a drawn by lots.
7. The drawn by lots will be done before Robocar making as well as the race car number.
8. The contestants will make their Robocar at the day of the contest. They will be given no more than 45 minutes to assemble the Robocar as well as the setting up of the channel and making it work.
9. The contestants are given the freedom to decide on their Robocar design.
10. The Robocar with the 4 batteries should be in the weight range of 300 g to 400 g. Failure to follow the weight range requirement will deem the contestant a disqualification.
11. The contestant will be given a chance to race 1 lap around the race track to get acquainted to it before the actual competition.
12. During the actual competition, the contestants will have to race a total of 5 laps around the tracks. the timer will end only once the Robocar crosses the finish line.
13. The winner of the race is the contestants with the BEST and FASTEST time of the 2 batches.

II. MRT ROBO SOCCER

1. The competition is open to all the recipient of the MRT kit.
2. The participants should be officially registered by the registration committee.
3. The participants are required to provide and bring their own 6 pieces of AA batteries and MRT Kit for the competition.
4. The participants are given the freedom to choose who will control the Robot. The participant who remote controls the robot shall keep distance with the game field area without touching or disturbing the game field.
5. Parts of the Robot is only limited to what is available in the MRT Kit. Thus MRT Kits will be checked right before the competition proper.
6. The contestants will make/assemble their Robot prior to the contest. (premade/preassemble)
7. Each team will have to defend the goal on its side as score the goal on the opposite side.
8. Each team can have a minimum of 3 and a maximum of 5 members (Junior High School).
9. The weight limit of the robot for this competition is 3 kg.
10. Each robot should not exceed by maximum of 25cm x 25cm x 25cm after the game starts.
11. A team can make either one robot or at maximum 2 robots (manually controlled) taking into consideration that the total weight of 1 or 2 robots, the controller and the batteries should not exceed 3 kg. (This means that whatever components the participants enter on to the field should not be more than 3 kg).
12. The start zone for the single or both robots is 500mm to 500 mm. (Single or both the robots must be able to remain completely inside the start zone before the start of the game).

13. The game will start at the count of 3 given by referee followed by whistle. In case a team starts its robot before the whistle, the game will be restarted and a team making this mistake for more than 3 times will be disqualified.
14. Each game is stipulated for 3 minutes.
15. Whistle will be blown as a sign of start of the match.
16. All games will be based on "knock out" system.
17. Each team shall consists of 3 robots and 3 students with each controlling one robot. Teams can choose between two roles variants: 3g 1 defender,+ 2 strikers or 2 defenders + 1 striker.
18. Defender: cannot leave his area (his half of the field), therefore cannot enter opponents area.
 - * allowed to enter own penalty area with non-stop movement to protect the gate, but not more than 10 seconds.
19. Striker; allowed to enter both own and opponents area.
 - allowed to enter opponent's penalty area to hit the gates, but stay there not more than 10 seconds.
 - not allowed to enter own penalty area.
20. The team should distribute the roles prior the game and provide this information to referee. Roles cannot be changed during the match, but can be changed between the matches.
21. A robot is not allowed to purposely block the ball against the side of the field and not moving. If doing it more than 2 times, the participant will be removed and isolated for 1 minute.
22. Robots can deploy any tactics or maneuvers, as long as it does not constitute a foul.
23. An offender will be issued a yellow card. Upon receiving 2 yellow cards, the player will be removed and being isolated for 1 minute before it can reenter the game field upon referee's approval.
24. Extra 1 minute shall be played only in the event of draw.
25. Penalties ball will be placed on a certain point (white dot). Robot which making a shot should start its movement behind the white dot to hit the ball and any part of robot cannot push the ball exceed the white line.
26. All robots will be collected by referees before the competition begin, cannot share the same robot with other participants.
27. The parts which are fallen or broken cannot be fixed back onto the robot during the match.
28. While match is in progress, at any time the referee whistles, the participants should stop the robot.
29. During the match, if the ball is holding by a robot and not moving, for more than 5 seconds, it is considered as "Dead ball". Referee will blow whistle and all robots must stop moving. Referee will place the ball accordingly and the game will resume with referee's instruction. If more than 3 times, ball will put at the middle field and all robots back to their start point. Game resume with whistle blow.
30. Deciding the winner: within 3 minutes, the team with highest goals will be the winner.
31. The knock out stage will not consists of any points and the winner of the game shall proceed to the next round.
32. The time limit for extra shall be 1 minute.
33. In the event of a draw by the end of extra time, a penalty shoot-out shall decide the match with each team being allocated 3 penalties.
34. Sudden death penalty shall decide the match in the event both teams are still tied for score. The team the misses the penalty with the other team scoring their penalty, losses the game. If still tied for score, then 1 vs 1 game starts, the one who score the first goal will be the winner team.
35. Disqualification: A team shall be disqualified if it commits any of the following during the match:
 - touching the robots while the match is in progress
 - robot does not comply with the size restrictions
36. Before game start, robots should place in front of the white line at each ends.

III. MRT PUSH-OUT GAME

Objectives of the Game:

The objective of the game is for your Bumper Car MRT Robot to push or bump the other team's robot to push it out of the playing field. The winners on each game will be determined by whoever scores the highest out of three game sets.

Before the game:

1. The competition is open to all the recipient of the MRT kit.
2. The participants should be officially registered by the registration committee. There should only be three (3) a mixed of Junior High School and Senior High School participants from each school.
3. The participants are required to provide and bring their own 6 pieces of AA batteries and MRT Kit (MRT 3 Series Foundation Level only) for the competition.
4. Parts of the Bumper Car is only limited to what is available in the MRT Kit. Thus MRT Kits will be checked right before the competition proper.

Game Process:

1. The winners will be determined through Single Elimination. Paired Matches will be determined through Drawn by Lots on the day of the competition.
2. A single-elimination, knockout or sudden death tournament will be followed. Where the loser of each match-up is immediately eliminated from the tournament. Each winner will play another in the next round until the final match-up whose winners becomes the tournament champion.
3. Every after each round there will be a short break of minutes to set the new channel for the bumper car.
4. The diameter of the playing field will increase by 10 inches each round of the completion. For the first round of the competition, the diameter of the playing field is 40 inches.

Game Rules and Mechanics

1. The contestants will make their Bumper Car on the day of the contest. They will be given no more than 45 minutes to assemble the Bumper Car as well as the setting up of the channel and making it work. The design of the Bumper car should be identical to what is in the workbook.
2. The design will be checked by the committee right before the game begin. Failure to follow this will deem the team disqualification.
3. After the set time limit, the participants will be given 2 minutes to be on their respective playing fields for the start of the game.
4. Participants will be provided with numbers as identification.
5. Bumper cars should be placed facing each other.
6. The tip of the yellow frame of the Bumper car should align to the center line of the playing field before the start of the game.
7. The game will officially start when the referee signals "Go" .
8. Each game per round will be done in a total of 3 sets. The team who scores the highest out of the 3 sets will proceed to the next round.
9. The team will score a point each set if they are able to push any part of the opposing team's bumper car out of the playing field or boundary line.
10. The game will continue until winners of the first round will be determined. The winners then will be paired up for the matches in the second round. The game process will continue until a champion will be determined.

Things deemed for Disqualification

1. Failure to register.
2. Design does not match the design on the workbook.
3. Touching the Bumper car during the game.
4. Other materials used were out from the MRT Kit distributed.
5. 3 calls will be given to the next game pair. Failure to come automatic disqualified/forfeited.