Your school has been selected for Maths Awesome Day – Dickson And You (MAD-DAY) on Tuesday December the 8th 2015. Teams of four year 8 and 9 students will gather for mathematical entertainment. Exceptionally gifted year 7 students may join a team. The focus of the day is fun, but there will also be an element of competition, including a trophy for the winning teams.

Please return Team Registration Form, Teacher Registration Form and Individual Registration Forms for each student by Tuesday 10th November. They can be sent in the internal mail, or scanned and e-mailed to caroline.evers@ed.act.edu.au If needed, they can also be faxed. Please also send the payment of $60 per team.

Please let me know ASAP if you don’t need all of your team places, so others can be invited. If you have one extra student who is keen to attend, let me know, as they could be a back-up participant if someone can’t make it on the day, or an assistant organiser if everyone turns up. Also let me know if you have a keen year 10 student who wants to be an assistant on the day.

Approximate Schedule for 8th December
8:30-9:00  Registration
9:00-9:15  Explanation of rules etc.
9:15-10:00 Round 1 - Coordinate treasure hunt
10:00-10:15 Setting up furniture
10:15-10:45 Morning Tea - Fruit and water
10:45-11:35 Round 2 - Relay
11:35-12:20 Round 3 - Puzzle time
12:20-12:55 Lunch – Salad and pizza and fruit boxes or flavoured milk
12:55-2:05 Round 4 - Swiss
2:05-2:35 Afternoon tea– fruit and water, then awesome point sale while judges tally scores
2:35-2:50 Award ceremony with Mike Clapper from AMT

Awesome Points and Trophy Points
Maths is awesome, and your students are awesome. They will collect awesome points during the day. They can spend their awesome points during afternoon tea on a range of fun trinkets. e.g. strange looking dice, or novelty erasers. Everyone wins a prize 😊

Some teams are more focused on ‘winning’. For each round, the first team will receive 16 trophy points, the second team 15 trophy points... and the final team 1 trophy point. If teams tie, they will share the points. e.g. tied for 2nd and 3rd => 14.5 points each. The first three teams at the end of the day will take an awesome trophy back to their school.

Round 1. The day will start with a coordinate treasure hunt. Students will work in teams of four to find clues on the floor of the hall, which will give clues to the next location. These clues will give a six letter code, which can be deciphered using a Caesar code to give a ten letter word. One Awesome Point for each clue in the correct order and for deciphering the word.
After the treasure hunt, students will be allocated a lightweight plastic desk and chair. The x and y axis will remain on the floor throughout the day, so teams can earn more awesome points for rearranging furniture when requested.

**Round 2.** The teams will be split into 2 halves. During the relay half the team works on odd numbered questions, and half on even numbered questions. Once a question is passed, the team may not return to it. e.g. Question 3 may not be handed out until question 2 is dealt with. So if the even half of the team is stuck, they may choose to pass rather than persevere, letting the odd half of the team also move to the next question. Inform students of the following questions:-
  7. On Monday, Kelly had no money in her wallet, so withdrew money from her bank account. She bought a $100 jacket and then spent half of the money she had left on some jeans. The next day, she earnt one hundred dollars in cash. She then deposited three quarters of the money from her wallet into the bank. She then spent half of the money left on a dinner with friends. She now has $27.50 in her wallet. How much money did Kelly withdraw from the bank?
  8. On Tuesday, Mustana had no money in his wallet, so he withdrew money from the bank. He spent $80 on a jacket. He then spent a third of what he had left on meal. His boss paid him $100 cash for last week’s work. He then spent half of what he had in his wallet on a game. He spent $30 on his sister’s birthday present, then had $50 left. How much did he withdraw from the bank?

**Round 3.** Teams will be given a Kakuro and Ken Ken puzzle. They earn 1 point for each correct digit, and lose two points for each incorrect digit (but are then told what the digit is). When they have finished these two puzzles, they will be given more difficult Kakuro and Ken Ken puzzles. The trick is sometimes it is better to guess a digit, if it leads to a faster solution. The team with the highest number of Puzzle Points will earn 16 Trophy Points.

**Round 4.** During the Swiss round, two teams will sit in alternating positions (ABABABAB). A table with a clue, lots of x values and some y values will be displayed. Teams take turns guessing the next y-value. See sample questions for more details and examples.

Accompanying teachers and older student volunteers will be helping by marking answers for a team from another school. If you are not comfortable doing this because maths is not your primary teaching area, we will buddy you with another teacher or a Dickson College student. Full instructions will be given on the day, and there will be people around to help.

**Awesome Point Sale**
During afternoon tea, each student will be given a slip of paper showing how many awesome points their team earned. They can then use this to purchase a variety of trinkets from the awesome point stall. (No lollies this year, as they are red food).

At the end of the day, trophies will be awarded by Mike Clapper from the Australian Maths Trust. All team members will receive a certificate of participation in the internal mail later.

Schools may be offered an additional team if another school has to pull out for some reason.

We look forward to seeing you on the day. If you have any questions please e-mail caroline.evers@ed.act.edu.au

Yours sincerely,

Caroline Evers
Maths Teacher
Dickson College