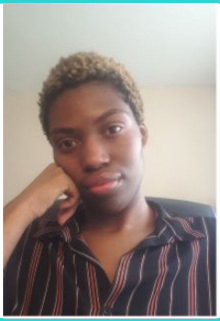
STEMillions

Easter Explore
29 March - 16 April 2021
Three Week Event
Junior

Regina Bissai Nzenza

First released Spring Term 2021



Regina Nzenza

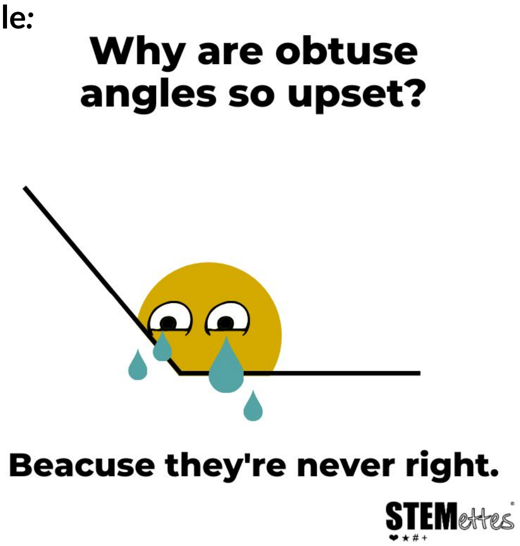
Meal Plan
#108
60 mins

Starters *5-10 mins*

Snack, Cackle & Pop................................ 2 mins

Snack: *we ♡ food, grab a snack before beginning!*

Cackle:



Pop: *Stemillions playlist on Spotify:* *bit.ly/stemillionsplaylist*

Meet Her... 5 mins

I am a first year undergraduate Computer Science and Maths student and I hope one day that with my acquired knowledge, I can help to better the world and bring more knowledge either by being a software engineer or data scientist working alongside scientists or by being a researcher.

Discuss:

- ★ *What do you think of Regina's subjects?*
- ★ *What do you think Computer Science is?*

Desserts *5 min*

Share with us .... 1 min

Upload photos on Twitter or Instagram and tag @Stemettes and #Stemillions.

Ask Them... 2 mins

Got a question? Ask Away! bit.ly/Ask-Away

Digest.. 2 mins

Digest this Meal Plan - fill out the feedback form.

Mains *20 mins - choose ONE only*

MAKE.. 20 mins

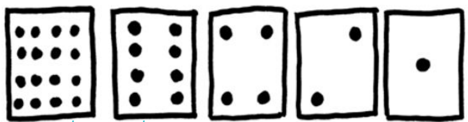
Ingredients: *Coloured sweets, pen & paper.*

Probability Game: Probability is an important topic in computer science. Many algorithms rely on probability. In this activity we will look at probability using sweets. Grab a bag of coloured sweets, like Skittles or Smarties. Count the number of each coloured sweet in the pack. Put all the sweets back in the bag, give them a shake, and pull out one sweet, what colour is the sweet? (You can eat the sweet.) Now what are the probabilities of picking out each coloured sweet? Keep going until you've eaten your whole pack of sweets - yay!

EXPLORE.. 20 mins

Ingredients: *Pens and paper.*

Binary Cards: Binary maths is an essential type of maths for computer science. In this activity we will explore binary maths to explain how data in computers is stored and transmitted as a series of zeros and ones. For this activity, you will need to cut up a piece of paper in to 5 rectangles, on each rectangle, draw 1, 2, 4, 8 or 16 dots on the card leaving the back blank, these are our binary cards.



csunplugged

Lay the cards out as shown above. We can use these cards to make numbers by turning some of them face down and adding up the dots that are showing. For example, if we wanted to make 6, we would turn over all the cards but the 4 & 2 dots. Now try to make 15 and 21. When a binary number card is not showing, it is represented by a zero. When it is showing, it is represented by a one. This is the binary number system. So 9 would be represented by 01001. Can you work out what 17 would be?