



## Starters 5-10 mins

**Announcements..... 1 min**

Share club member achievements.

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

Snack: Cereal Bar

Cackle:

I made a Chemistry Joke...



There was no reaction.

**Pop:** Stemillions playlist on Spotify:

[bit.ly/stemillionsplaylist](http://bit.ly/stemillionsplaylist)

**Meet Them ..... 5 mins**

Dr. Yahaya was the first Malaysian to earn a PhD at 27 from Institute of Physical and Chemical Research. She specialised in creating enzymes for biodegradable plastics production in microbes in RIKEN's Laboratory of Polymer Chemistry. She has won various awards including being selected as one of Malaysia's young scientists to attend the 2010 Interdisciplinary Lindau Meeting of Young Scientists with Nobel Laureates.

**Watch:** [bit.ly/055MeetThem](http://bit.ly/055MeetThem)

**Discuss:**

- ★ What do you think of Dr. Yahaya's job?
- ★ How many biodegradable plastics can you think of?
- ★ What is an enzyme?

## Mains 20 mins - choose ONE only

**MAKE..... 20 mins**

Dr Yahaya creates enzymes, enzymes are made up of 100's of amino acids. Take 4 different coloured gummy sweets to represent the chemical elements that make up amino acids:

- ★ 1 for C (carbon)
- ★ another for H (hydrogen)
- ★ Another for O (oxygen)
- ★ Another for N (nitrogen)

Head to [bit.ly/055make](http://bit.ly/055make) and choose an amino acid.

Use cocktail sticks for the bonds to connect the sweets together. When a chemical symbol has a number next to it, stick that amount of sweets together. Once you're done look up the uses for your amino acid. Then you get to eat them - YAY

**EXPLORE..... 20 mins**

As Dr. Yahaya works with enzymes, create a poster/wall display about the 'lock and key' theory of enzymes.

- ★ Give some examples of enzymes
- ★ What is a substrate and enzyme?
- ★ What happens if the temperature increases?

Take a look here for more information on enzymes:

[bit.ly/055explore](http://bit.ly/055explore)

## Desserts 5 mins

**Share with us ..... 1 min**

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

**Ask Away..... 2 mins**

Got a question? Ask Away! [bit.ly/Ask-Away](http://bit.ly/Ask-Away)

**Digest..... 2 mins**

Digest this Meal Plan [bit.ly/digest055](http://bit.ly/digest055)