

# Isabella Topley

First released Spring Term 2021

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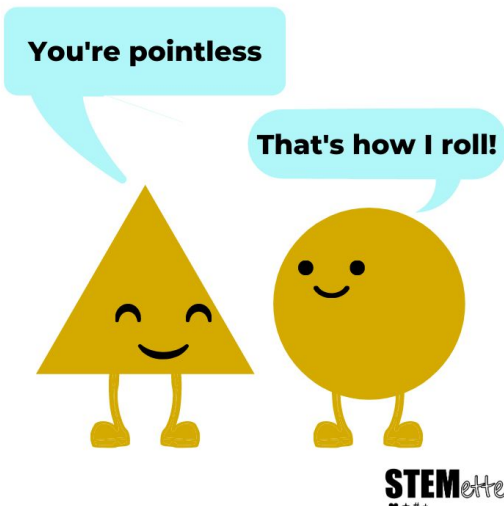
Meal Plan  
**#105**  
60 mins

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

Meet Her..... 5 mins

I am currently 16 and in year 11 and doing my GCSEs. Next year, I'm going to go to a maths school where I will study maths, physics and computer science. Other than school, I also enjoy taking part in maths competitions and going on walks with my family.

Discuss:

- ★ What do you think of Isabella's subjects?
- ★ What is your favourite science?

## Desserts 5 min

Share with us ..... 1 min

Upload photos on [Twitter](https://twitter.com) or [Instagram](https://www.instagram.com) and tag @Stemettes and #Stemillions.

Ask Them..... 2 mins

Got a question? Ask Away! [bit.ly/Ask-Away](http://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:** Objects of different weights, a stop watch, a chair.

Isabella loves maths and physics, one topic that involves both of these topics is called Quantum Physics. One of the many things Quantum Physicists research, is how exactly does gravity work? In this activity we will experiment with gravity.

- ★ Question: If we drop a heavy object and a light object, which one will hit the ground first?

Gather items of differing weights and sizes, such as a ball, action figure, a book, and a balloon.

**Carefully**, stand on top of the chair while holding the items. One at a time, drop each item from the same height. Keep track of how long it takes each item to reach the ground.

At first, you might have predicted that the, heavier items will hit the ground first, this is not true. The rate of Earth's gravitational pull on all objects is the same regardless of weight. Given the absence of air resistance, each object should reach the floor at the same time. Do your finding support this?

EXPLORE..... 20 mins

**Ingredients:** Pens and paper or computer/laptop.

Isabella absolutely loves maths! There are lots of fun topics in maths, make a poem or song about your favourite maths topics. You might need to start by thinking about all the topics you have studied in maths so far, which one was your favourite? Think about some of the key points you have learnt about this topic and turn them into a poem to share with other people to help them learn about this maths topic.