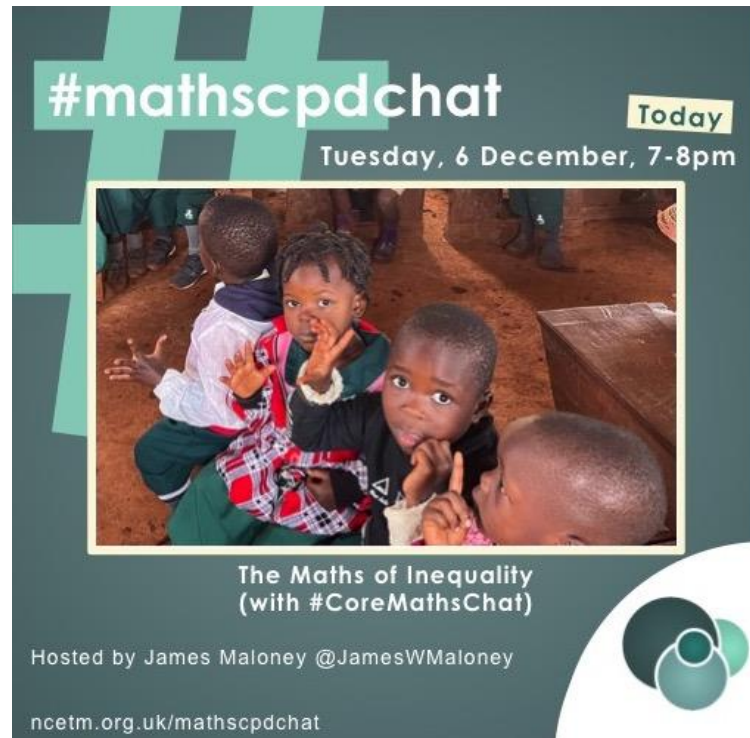


#mathscpdchat (On this occasion with #CoreMathsCat) 6 December 2022

The Maths of Inequality

Hosted by [James Maloney](#)

This is a summary of the discussion – to see all the tweets, follow the hashtag #mathscpdchat in Twitter



#mathscpdchat **Today**
Tuesday, 6 December, 7-8pm

The Maths of Inequality
(with #CoreMathsChat)

Hosted by James Maloney @JamesWMaloney

ncetm.org.uk/mathscpdchat

The following questions from the host were addressed:

1. Maths, Inequality and You: inequality can be a challenging topic – would you feel confident using it as a context in lessons?
2. Maths, Inequality and Context: have you ever used Inequality as a context in your maths lessons?
3. Maths, Inequality and Students: how do your students view inequality? Do they link it to maths at all? Are there types of inequality they focus on?
4. Maths, Inequality and Resources: what sources/resources can you share that might help a maths teacher use an inequality context in their lessons?
5. Maths, Inequality and Hope: by linking inequality and Maths in your future lessons, what do you hope for?

A full illustrated summary of the discussions generated by these questions follows after a list of the links shared during this #mathsCPDchat:

[Core Maths](#) which is the Core Maths Platform hosted by *Integral*. It is a growing set of specification-specific Core Maths resources for teachers and students, which are developed by the government-funded Advanced Maths Support Programme (AMSP). It was shared by [James Maloney](#)

[The impact of income inequality](#) which is a pdf file providing a full description of a lesson developed by the Equality Trust. 'The lesson enables learners to critically engage with data on the effects of income inequality. It was shared by [James Maloney](#)

[Inequalities in London](#) which is an illustrated article containing many attractive maps and charts from Londonmapper (A social Atlas of London). This 'introduction' is written by Benjamin Hennig and Danny Dorling. It was shared by [James Maloney](#)

[Slow reveal graphs](#) which is an introduction to using *Slow Reveal Graphs* with students. The link to the slow-reveal-graph [World Population Living in Extreme Poverty, 1820-2015](#) was shared by [James Maloney](#)

[City and Colour](#) which is an infographic that is part of a *Slow Reveal Graph*. It was shared by [James Maloney](#)

[International Poverty Line](#) which is an *Our World in Data* article by Joe Hasell. The World Bank has updated the methods it uses to measure incomes and poverty around the world. The author describes what this means for our understanding of global poverty. It was shared by [James Maloney](#)

[Introduction to infographics with the authors of 'An Answer For Everything'](#) which is a free live online PD session on Saturday, 28 January 2023 provided by the AMSP. The session leaders are Marcus Webb and Rob Orchard, creators of the award-winning magazine *Delayed Gratification*. Attendees at the session will get access to instructions for making their own sophisticated infographics. It was shared by [Tom Rainbow](#)

[Infographic: The best and worst countries in the world](#) which is an infographic. It was shared by [Tom Rainbow](#)

[Gapminder teaching materials](#) which are tools designed for students who are 'put off' by just hearing the words 'data' and 'statistics'. These tools 'can be easily understood and appreciated by everyone, even though they are built from data'. It was shared by [Tom Rainbow](#) and [Yvonne Osborne](#)

[The Spirit Level](#) which is an article from The Equality Trust about the book *The Spirit Level: Why Equality is Better for Everyone* by Kate Pickett and Richard Wilkinson. It was shared by [Tom Rainbow](#)

[Baby names in England and Wales: 2021](#) which is a release from the Office of National Statistics about the most popular first names for baby boys and girls in 2021 derived from birth registrations. It was shared by [Tom Rainbow](#)

[Engel's Law](#) which is the Wikipedia entry about Engel's Law, which is an economic relationship proposed by the statistician Ernst Engel in 1857. It was shared by [Tom Rainbow](#)

[Teaching Maths for Social Justice](#) which is a padlet created by [Cat van Saarloos](#) containing brief descriptions of, and links to, varied and useful resources to use in teaching and learning about maths and social justice. It was shared by [Cat van Saarloos](#)

[Play the Census 2021 quiz: how well do you know your area?](#) which is an online game from the Office of National Statistics. It was shared by [Cat van Saarloos](#)

[Visualising inequality \(by hand\)](#) which are resources provided by the AMSP. These resources provide opportunities for students to explore economic inequality data and graphs. And to consider how hand-drawn data visualisations can be used to tell a story with data. It was shared by [Cat van Saarloos](#)

[Equal Pay](#) which is a Desmos activity for students designed by [Cat van Saarloos](#) using resources from The Equality Trust. It was shared by [Cat van Saarloos](#)

[What does a billion pounds look like? - BBC News](#) which is a YouTube video. It was shared by [Cat van Saarloos](#)

[Man Uses Rice to Visually Represent Jeff Bezos' Net Worth](#) which is another YouTube video. It was shared by [Cat van Saarloos](#)

[The Teaching Maths for Social Justice Network](#) which is a network for teachers of mathematics in all school phases committed to addressing issues of equity and social justice in the classroom. It was shared by [Cat van Saarloos](#)

[My \(current\) top ten resources for teaching Core Maths](#) which is a page on the AMSP website that provides brief descriptions of, and links to, useful resources for teaching Core Maths. It was shared by [Elizabeth Hopker](#)

[Police workforce, England and Wales: 31 March 2022](#) which are statistics on police workforce numbers in the 43 police forces in England and Wales and the British Transport Police. It was shared by [Elizabeth Hopker](#)

[Qatar Has Outspent Every World Cup Host in History](#) which is a *Slow Reveal Graph*. It was shared by [Jude Mortimer](#)

[Mathematics and crises](#) which is a paper by Ole Skovsmose in Educational Studies in Mathematics (2021). The author explores different types of relationships between mathematics and crises. It was shared by [Geoff Wake](#)

[Human rights in the curriculum: Mathematics](#) which is a book by Peter Wright that addresses human rights challenges of citizenship education in the context of secondary mathematics. It was shared by [Stuart Price](#)

[Gini coefficient](#) which is the Wikipedia entry about the Gini coefficient, which is a measure of statistical dispersion intended to represent income inequality. It was shared by [Mary Pardoe](#)

[Core Maths newsletter: subscribe](#) which is a pinned tweet by [David Gale](#) containing the link to where you can subscribe to the Core Maths Newsletter. It was shared by [Mary Pardoe](#)

[Yahweh Primary School](#) which is a brief pdf article about a school adjacent to Lake Victoria in Uganda in which teachers are educating young pupils. The aim of those teachers is to make those pupils' future lives more likely to be less unequal (in many ways) to the lives of most people in the world. It was shared by [Mary Pardoe](#)

The host's 'Welcome' tweet ...



James Maloney @JamesWMaloney · 17h

Good evening and welcome all. It is International Human Rights Day on December 10th, so tonight we are discussing 'The Maths of Inequality.' Please use both hashtags - [#MathsCPDChat](#) [#CoreMathsChat](#) to allow everyone to follow the threads.



... was followed by another tweet ...



James Maloney @JamesWMaloney · 18h

Replying to @JamesWMaloney

So who's here tonight? The right to Equality is mentioned in Article 1 of the Universal Declaration of Human Rights which is celebrating its 75th anniversary this year. [#MathsCPDChat](#) [#CoreMathsChat](#)

... to which there were these 'single' replies ...



Tom Rainbow @CoreMathsTom · 18h

Replying to @JamesWMaloney

Evening James. [#MathsCPDChat](#) [#CoreMathsChat](#)



Rebecca Atherfold @becatherfold · 20h

Replying to @JamesWMaloney

I am [#coremathschat](#) [#mathscpdchat](#)



Mary Pardoe @PardoeMary · 20h

Replying to @JamesWMaloney

I'm here ... not well up on maths and inequality though ... yet!



MrHawesMaths @HawesMaths · 20h

Replying to @JamesWMaloney

< > = I am here. [#mathscpdchat](#) [#coremathschat](#)



James Maloney @JamesWMaloney · 20h

Replying to @HawesMaths

Welcome! [#MathsCPDChat](#) [#CoreMathsChat](#)

... and some replies that generated conversations. A reply from Jude Mortimer prompted two discussions, this one ...



Jude Mortimer @Littlemissmath5 · 17h

...

Replying to @JamesWMaloney

Hello! I'm here :-) #MathsCPDChat #CoreMathsChat



Elizabeth Hopker @lihopker · 17h

...

Replying to @Littlemissmath5 and @JamesWMaloney

Hey! I believe you were showing something in the network meeting earlier that was highly linked to this - was it on your Top Ten Resources page?

amsp.org.uk/my-current-top... #CoreMathsChat #MathsCPDChat



amsp.org.uk
My (current) top ten resources for teaching Core ...
My current top ten resources for teaching Core Maths



Jude Mortimer @Littlemissmath5 · 17h

...

Replying to @lihopker and @JamesWMaloney

Actually was it to do with this...? slowrevealgraphs.com/2022/11/27/qat..
#coremathschat #mathscpdchat



slowrevealgraphs.com

Slow Reveal Graph: Qatar has outspent every World Cup host in history
How much did Qatar spend on the World Cup? And why is it such a big deal that this is the most expensive World Cup ever?

 **Elizabeth Hopker** @lihopker · 17h ...
Replying to @Littlemissmath5 and @JamesWMaloney
Yes! This was it! Topical, and a great way to generate discussion whilst leading into GDP #CoreMathsChat #MathsCPDChat

... and this long conversation ...

 **Jude Mortimer** @Littlemissmath5 · 17h ...
Replying to @JamesWMaloney
Hello! I'm here :-) #MathsCPDChat #CoreMathsChat

 **Cat van Saarloos** @CoreMathsCat · 18h ...
Replying to @Littlemissmath5 and @JamesWMaloney
Sorry I am late! #CoreMathsChat


 **Tom Rainbow** @CoreMathsTom · 17h ...
Replying to @CoreMathsCat @Littlemissmath5 and @JamesWMaloney
The doyen of the Liverpool census has arrived!! #MathsCPDChat #CoreMathsChat


 **James Maloney** @JamesWMaloney · 17h ...
Replying to @CoreMathsTom @CoreMathsCat and @Littlemissmath5
Was she personally going door-to-door? 😊 #CoreMATHsChat #MathsCPDChat

 **Cat van Saarloos** @CoreMathsCat · 17h ...
Replying to @JamesWMaloney @CoreMathsTom and @Littlemissmath5
Hahaha

 **Jude Mortimer** @Littlemissmath5 · 17h ...
Replying to @CoreMathsCat @JamesWMaloney and @CoreMathsTom
I'm intrigued!

 **Cat van Saarloos** @CoreMathsCat · 17h ...
Replying to @Littlemissmath5 @JamesWMaloney and @CoreMathsTom
[@ONS census quiz: ons.gov.uk/peoplepopulati..](https://ons.gov.uk/peoplepopulati..)

 **James Maloney** @JamesWMaloney · Dec 6 ...
I liked the resources from previous releases but not had chance to look at these yet. #CoreMathsChat #MathsCPDChat

 **Tom Rainbow** @CoreMathsTom · Dec 6 ...
Replying to @JamesWMaloney
The more I dig into it the more I realise the ONS website has massive potential for Core Maths resources. Is there a link between baby names and inequality? ons.gov.uk/peoplepopulati...
#mathscpdchat #CoreMathsChat

 **Elizabeth Hopker** @lihopker · Dec 6 ...
Replying to @CoreMathsTom and @JamesWMaloney
Lots of potential - if there are any specific topics that you want some for, I can add it to my list for creation! #mathscpdchat #CoreMathsChat

 **Tom Rainbow** @CoreMathsTom · Dec 6 ...
Replying to @lihopker and @JamesWMaloney
I'll keep that in mind Liz. #CoreMathsChat #MathsCPDChat

... in which Cat van Saarloos' tweet above generated other discussion threads, this one ...

 **Cat van Saarloos** @CoreMathsCat · 17h ...
Replying to @Littlemissmath5 @JamesWMaloney and @CoreMathsTom
@ONS census quiz: ons.gov.uk/peoplepopulati..

 **Jude Mortimer** @Littlemissmath5 · 17h ...
Replying to @CoreMathsCat @JamesWMaloney and 2 others
Ohhhh! Did I see that you know more than Tom about teignmouth? Or something? #coremathschat #mathscpdchat

 **Cat van Saarloos** @CoreMathsCat · 17h ...
Replying to @Littlemissmath5 @JamesWMaloney and 2 others
No only Liverpool unfortunately - he would beat me on any other city I reckon (even Belfast!)

 **Tom Rainbow** @CoreMathsTom · 17h ...
Replying to @CoreMathsCat @Littlemissmath5 and 2 others
I'm not so sure I would! I challenge you to Lincoln by the close of play tomorrow. Bet I lose!!! #MathsCPDChat #CoreMathsChat

... and this:

 **Cat van Saarloos** @CoreMathsCat · 17h ...
Replying to @Littlemissmath5 @JamesWMaloney and @CoreMathsTom
@ONS census quiz: ons.gov.uk/peoplepopulati..

 **Beth Turner** @MissBTMaths · 18h ...
Replying to @CoreMathsCat @Littlemissmath5 and 3 others
This is fun! Might get my classes to have a go next week...

 **Tom Rainbow** @CoreMathsTom · 18h ...
Replying to @MissBTMaths @CoreMathsCat and 3 others
Can they beat 6 out of 8? If so, make sure you let @coremathscat know!
#CoreMathsChat #MathsCPDChat

 **Tom Rainbow** @CoreMathsTom · 18h ...
Replying to @CoreMathsCat @Littlemissmath5 and 2 others
I'm not competitive, really I'm not! #mathscpdchat #CoreMathsChat



Beth Turner @MissBTMaths · 18h

...

Replying to @CoreMathsTom @CoreMathsCat and 3 others

Is that the score to beat then?! I got 6 when I tried! #CoreMathsChat #MathsCPDChat



Tom Rainbow @CoreMathsTom · 18h

...

Replying to @MissBTMaths @CoreMathsCat and 3 others

You're very impressive too then! #CoreMathsChat #MathsCPDChat



Cat van Saarloos

...

@CoreMathsCat

Replying to @MissBTMaths @CoreMathsTom and 3 others



The host's first question ...



James Maloney @JamesWMaloney · 21h

...

Let's dive in...!

Q1 – Maths, Inequality and You

Inequality can be a challenging topic – would you feel confident using it as a context in lessons? #MathsCPDChat #CoreMathsChat



...prompted the following single replies, including one from James himself ...



James Maloney @JamesWMaloney · Dec 6

...

Replying to @JamesWMaloney

A1 – I've used ready-made resources for it. But I'm not so confident about making my own or designing my own lesson around it. I think that may be because I feel I've got less in the way of answers (any sort of answer!) than in other contexts. #MathsCPDChat #CoreMathsChat



Tom Rainbow @CoreMathsTom · Dec 6

...

Replying to @JamesWMaloney

Absolutely, although I was once running a session with Y12 students, showed them a graph of income inequality against child health for various countries and asked them what they noticed. The first student responded with 'Left-wing propaganda!' #MathsCPDChat #CoreMathsChat



Yvonne Osborne @MrsOsborneMATHS · Dec 6

...

Replying to @JamesWMaloney

Tools like this [gapminder.org/tools/#\\$chart-...](https://gapminder.org/tools/#$chart-...) from gapminder have been good starting points #mathscpdchat



gapminder.org

Gapminder Tools

Animated global statistics that everyone can understand



Cat van Saarloos @CoreMathsCat · Dec 6

...

Replying to @JamesWMaloney

We did enrichment with Y10 last week and discussed @MonaChalabi's hand drawn visualisations as part of the Visualising Inequality activities: amsp.org.uk/resource/66863...

I was so impressed with students' maturity and insight #MathsCPDChat



amsp.org.uk

Resource - AMSP

... this interchange ...



Elizabeth Hopker @lihopker · Dec 6

...

Replying to @JamesWMaloney

It's definitely something I had to work to be comfortable doing, as you have to be ready and prepared to ensure there is a safe environment for all to express views, but be wary of what might come up in terms of student views #mathscpdchat #CoreMathsChat



James Maloney @JamesWMaloney · Dec 6

...

Replying to @lihopker

This is also part of my answer, I think. Because I have so few answers I'm a little scared of it tbh. #CoreMathsChat #MathsCPDChat

... and a very long conversation (featuring the Gini Coefficient) which began with a reply to Q1 from Matt Hawes:



James Maloney @JamesWMaloney · 21h

...

Let's dive in...!

Q1 – Maths, Inequality and You

Inequality can be a challenging topic – would you feel confident using it as a context in lessons? #MathsCPDChat #CoreMathsChat



MrHawesMaths @HawesMaths · 21h

...

Replying to @JamesWMaloney

I think Humanities like Geography and History probably discuss that more than perhaps we do. I reckon they have got some great insights.

#mathscpdchat #coremathschat



Jude Mortimer @Littlemissmath5 · 21h

...

Replying to @HawesMaths and @JamesWMaloney

It's a great theme for combining subjects - would be a good opportunity to collaborate with humanities teachers #mathscpdchat #coremathschat



MrHawesMaths @HawesMaths · 21h

...

Replying to @Littlemissmath5 and @JamesWMaloney

I reckon there could be some great projects there. Across all key stages too. #mathscpdchat #coremathschat



James Maloney @JamesWMaloney · 21h

...

Replying to @HawesMaths

Yes, when researching this I got into the history side more, I knew it's relevance to geography quite well. But a lot of maths going on in history about this. #MathsCPDChat #CoreMathsChat



MrHawesMaths @HawesMaths · 21h

...

Replying to @JamesWMaloney

I bet you can find right through the ages. Are you thinking across nations or within particular countries. I think I would like to explore east and west Germany

 **James Maloney** @JamesWMaloney · 21h ...
Replying to @HawesMaths

Yes, knowing the Declaration of Human Rights is *only* 75 years old. Be interesting to look further back. #MathsCPDChat #CoreMathsChat

 **Jude Mortimer** @Littlemissmath5 · 21h ...
Replying to @HawesMaths and @JamesWMaloney

It's a great theme for combining subjects - would be a good opportunity to collaborate with humanities teachers #mathscpdchat #coremathschat

 **MrHawesMaths** @HawesMaths · 21h ...
Replying to @Littlemissmath5 and @JamesWMaloney

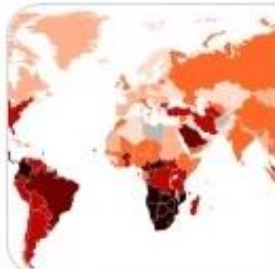
I reckon there could be some great projects there. Across all key stages too. #mathscpdchat #coremathschat

 **Tom Rainbow** @CoreMathsTom · 21h ...
Replying to @HawesMaths and @JamesWMaloney

Gini Coefficient (Income Inequality measure) studied in A level geography, politics, sociology, economics...probably more. #MathsCPDChat #CoreMathsChat

 **Mary Pardoe** @PardoeMary · 21h ...
Replying to @CoreMathsTom @HawesMaths and @JamesWMaloney

Learnt something new already ... Gini coefficient! Thanks!
en.wikipedia.org/wiki/Gini_coef...
#mathscpdchat #CoreMathsChat



en.wikipedia.org
Gini coefficient - Wikipedia

 **Tom Rainbow** @CoreMathsTom · 21h ...
Replying to @PardoeMary @HawesMaths and @JamesWMaloney

Pretty strong negative correlation here (in Gapminder Gini is in 'Economy')
#mathscpdchat #CoreMathsChat



gapminder.org
Gapminder Tools
Animated global statistics that everyone can understand



Joseph Milton @Geo_Dougie · Dec 6

Replying to @CoreMathsTom @HawesMaths and @JamesWMaloney

Some examples of GINI coefficient being calculated in A Level #geography.

Lorenz Curve x Gini Coefficient

Cumulative population	Cumulative A	Cumulative B
100	100 ✓	100
80	70 ✓	50
60	50 ✓	15
40	30 ✓	15
20	10 ✓	4
0	0 ✓	0

A = $\frac{1}{2} \text{ base} \times \text{height}$
= $0.5(10) \times (10)$
= 0.5

Triangles

- ① $\frac{1}{2}(0.2)(0.1) = 0.01$
- ② $\frac{1}{2}(0.2)(0.2) = 0.02$
- ③ $\frac{1}{2}(0.2)(0.1) = 0.01$
- ④ $\frac{1}{2}(0.2)(0.2) = 0.02$
- ⑤ $\frac{1}{2}(0.1)(0.1) = 0.005$

Rectangles

- ⑥ $0.1 \times 0.1 = 0.01$
- ⑦ $0.2 \times 0.3 = 0.06$
- ⑧ $0.2 \times 0.5 = 0.1$
- ⑨ $0.2 \times 0.3 = 0.06$

B = 0.1 + 0.12 = 0.22

Cumulative population

— Perfect Equality (Gini = 0)

— Perfect Inequality (Gini = 1)

Gini Coefficient = $\frac{\text{Area between A \& B}}{\text{Area under A}}$

= $\frac{0.5 - 0.22}{0.5}$

= 0.16

Lorenz Curve x Gini Coefficient
Country B.

Triangles

- ① $0.5(0.2)(0.05) = 0.005$
- ② $0.5(0.2)(0.1) = 0.01$
- ③ $0.5(0.2)(0.1) = 0.01$
- ④ $0.5(0.2)(0.15) = 0.0075$
- ⑤ $0.5(0.1)(0.5) = 0.025$

Rectangles

- ⑥ $0.2(0.5) = 0.1$
- ⑦ $0.2(0.15) = 0.03$
- ⑧ $0.2(0.25) = 0.05$
- ⑨ $0.2(0.5) = 0.1$

B = 0.29

Cumulative population

— Perfect Equality (Gini = 0)

— Perfect Inequality (Gini = 1)









Gini = $\frac{0.5 - 0.29}{0.5} = \underline{0.42}$



Tom Rainbow @CoreMathsTom · Dec 6

Replying to @Geo_Dougie @HawesMaths and @JamesWMaloney

Wow - that looks really interesting, thanks for sharing @Geo_Dougie #CoreMathsChat #MathsCPDChat

-  **Elizabeth Hopker** @lihopker · 21h ...
Replying to @CoreMathsTom @HawesMaths and @JamesWMaloney
There are some great resources on the Core Maths Platform on @Integral_Maths on the Gini Co-efficient and exploring that!
[#coremathschat](#) [#mathscpdchat](#)
-  **Tom Rainbow** @CoreMathsTom · 21h ...
Replying to @lihopker @HawesMaths and 2 others
Can you give us an example or two Liz. [#MathsCPDChat](#) [#CoreMathsChat](#)
-  **James Maloney** @JamesWMaloney · 21h ...
Replying to @CoreMathsTom @lihopker and 2 others
They're available on the Integral Core Maths platform. [#MathsCPDChat](#) [#CoreMathsChat](#)
integralmaths.org/core-maths
-  **Elizabeth Hopker** @lihopker · 21h ...
Replying to @CoreMathsTom @HawesMaths and 2 others
I will open up the laptop! [#CoreMathsChat](#) [#MathsCPDChat](#)
-  **Elizabeth Hopker** @lihopker · 21h ...
Replying to @lihopker @CoreMathsTom and 3 others
Located under either "multi-topic activities and projects" or "Percentage 1 - comparisons and change", on the platform, you will find a teacher folder entitled "Gini", with teacher notes, a PPT (1) [#CoreMathsChat](#) [#MathsCPDChat](#)
-  **Tom Rainbow** @CoreMathsTom · Dec 6 ...
Replying to @lihopker @HawesMaths and 2 others
Thanks Liz [#MathsCPDChat](#) [#CoreMathsChat](#)
-  **Elizabeth Hopker** @lihopker · 21h ...
Replying to @lihopker @CoreMathsTom and 3 others
Also, an interactive student resource taking students through the Gini co-efficient, the Lorenz curve and examples of inequality graphs (including some ONS data for 1977-2020) [#CoreMathsChat](#) [#MathsCPDChat](#)
-  **Elizabeth Hopker** @lihopker · 21h ...
Replying to @lihopker @CoreMathsTom and 3 others
In a similar location, you can also find resources on the Richest Country, as well as resources for an autonomous learning task on Income, Wealth and Inequality [#CoreMathsChat](#) [#MathsCPDChat](#)



Stella Dudzic @StellaDudzic · Dec 6

Replying to @lihopker @CoreMathsTom and 3 others



Income, Wealth and Inequality

Four lessons, where you can dip into one or more and they can be done in any order.

- The richest country in the world?
- How much does a Big Mac cost?
- The Gini Index
- **Income, wealth and inequality - Autonomous task**



James Maloney @JamesWMaloney · Dec 6

Replying to @StellaDudzic @lihopker and 3 others

Big Mac! This was a great way into the topic for me. How could I forget about that? (Maybe because they've discontinued Chicken Legends! 😊)

#MathsCPDChat #CoreMathsChat



Beth Turner @MissBTMaths · Dec 6

Replying to @JamesWMaloney @StellaDudzic and 4 others

Whaaat??? I didn't know they'd been discontinued! What am I going to get the next time I go to McDonald's?! #CoreMathsChat #MathsCPDChat



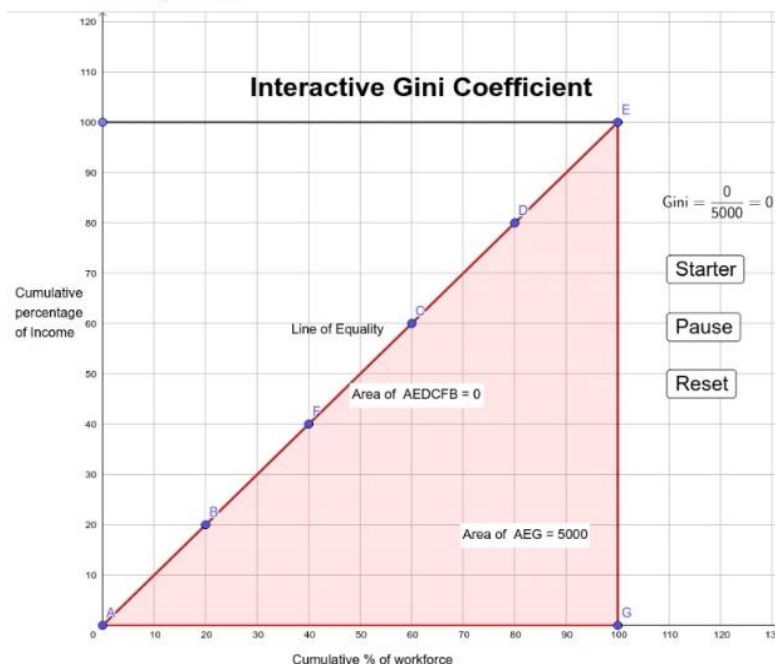
Elizabeth Hopker @lihopker · Dec 6

Replying to @StellaDudzic @CoreMathsTom and 3 others

Also, a nice Geogebra Applet on the Gini Coefficient embedded into the H5P for students to explore #CoreMathsChat #MathsCPDChat

Interactive Gini Coefficient V2

Author: Integral Resources





Tom Rainbow @CoreMathsTom · 21h

Replying to @lihopker @HawesMaths and 2 others

I really like this Infographic from the amazing Slow Journalism website: slow-journalism.com/infographics/i...

#CoreMathsChat #MathsCPDChat



slow-journalism.com
Infographic: The best and worst countries in the world
For our book of infographics, An Answer For Everything, we produced a meta-list that tracks the 'best country' indices published by NGOs an...



Cat van Saarloos @CoreMathsCat · Dec 6

The @dgquarterly team are doing a session on Infographics at the Winter Festival in January: amsp.org.uk/event/10636/
Everyone is very welcome! #mathscpdchat



Elizabeth Hopker @lihopker · 21h

Replying to @CoreMathsTom @HawesMaths and 2 others

Very excited for the session with the authors from An Answer for Everything in January - can you link the event, @CoreMathsTom @CoreMathsCat?
#CoreMathsChat #MathsCPDChat



Cat van Saarloos @CoreMathsCat · Dec 6

Replying to @lihopker @CoreMathsTom and 3 others

Sat 28th January: amsp.org.uk/event/10636/ #mathscpdchat



amsp.org.uk
Event - AMSP

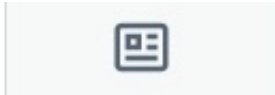


Tom Rainbow @CoreMathsTom · 21h

...

Replying to @lihopker @HawesMaths and 3 others

Here you go Liz...although I expect Cat has beaten me to it:
amsp.org.uk/event/10636/



amsp.org.uk
Event - AMSP



Elizabeth Hopker @lihopker · 21h

...

Replying to @CoreMathsTom @HawesMaths and 3 others

She did! But great to have it twice! #CoreMathsChat #MathsCPDChat



Tom Rainbow @CoreMathsTom · Dec 6

...

Replying to @CoreMathsCat @lihopker and 3 others

Knew it! Whizzy Fingered Van Saarloos does it again! #CoreMathsChat #MathsCPDChat



Tom Rainbow @CoreMathsTom · 21h

...

Replying to @lihopker @HawesMaths and 3 others

I think all three sessions of the Winter Festival would be great for any teacher of maths whether you do Core Maths or not. Infographics used in lots of other A levels too...Geography are all over them, for example!
#CoreMathsChat #MathsCPDChat

The host's second question ...



James Maloney @JamesWMaloney · Dec 6

...

You've sort of got there before me but...

Q2 – Maths, Inequality and Context

Have you ever used Inequality as a context in your maths lessons? Tell us about it. #MathsCPDChat #CoreMathsChat



... was followed by another tweet from James, to which there was one reply:



James Maloney @JamesWMaloney · Dec 6

...

Replying to @JamesWMaloney

One of my thoughts when prepping this was that I've used a fair amount of inequality resources, but maybe I haven't used the context to it's best.

#CoreMathsChat #MathsCPDChat



Elizabeth Hopker @lihopker · Dec 6

...

Replying to @JamesWMaloney

For an introduction to data in a GCSE resit class, I looked at the gender gap and the graphics behind this in the police force of the UK - very interesting graphics for "what do you notice?" on here: gov.uk/government/statistics

#CoreMathsChat #MathsCPDChat

	<p>gov.uk Police workforce, England and Wales: 31 March 2... Statistics on police workforce numbers in the 43 police forces in England and Wales and the British ...</p>
---	--

Another reply to Q2 generated a long conversation:




Cat van Saarloos @CoreMathsCat · Dec 6

...

Replying to @JamesWMaloney

The @equalitytrust had some brilliant pay gap resources that I turned into Desmos during lockdowns: teacher.desmos.com/activitybuilder.. but need to update them with new data. #mathscpdchat

	<p>teacher.desmos.com Equal Pay This resource has been taken from: https://www.equalitytrust.org.uk/equalpay50/sch...</p>
---	--



Cat van Saarloos @CoreMathsCat · Dec 6

...

Replying to @CoreMathsCat @JamesWMaloney and @equalitytrust

Students sometimes say "but they worked so hard, they earned that money" which is a good time to work out what your hourly salary would have to be to actually earn a billion pounds etc. #mathscpdchat



James Murgatroyd @mrmurgsmaths · Dec 6

...

Replying to @CoreMathsCat @JamesWMaloney and @equalitytrust

I talk to my students about the difference between a thousand, ten thousand, a million and a billion.

Create a path of £1 coins by placing them side by side then:

1k - 22.5 metres

10k - length of 2 football pitches

1mn - 14 miles

1bn - North to South Pole plus with change!



Cat van Saarloos @CoreMathsCat · Dec 6

...

Replying to @mrmurgsmaths @JamesWMaloney and @equalitytrust

This is great!

Useful video here too: youtube.com/watch?v=okS1JT...

[#mathscpdchat](#)



youtube.com

What does a billion pounds look like? - BBC News
A billion... it's hard to fathom. It's a number that's thrown around a lot, from party manifestos to ...



Rebecca Atherfold @becatherfold · Dec 6

...

Replying to @CoreMathsCat @JamesWMaloney and @equalitytrust

I used an activity once where the students had to work out how close they would get to Bezos wealth if they worked 40 hours a week, for 2000 years, earning £2k an hour. [#mathscpdchat](#) [#coremathschat](#)



Jude Mortimer @Littlemissmath5 · Dec 6

...

Replying to @becatherfold @CoreMathsCat and 2 others

how close did they get? [#coremathschat](#) [#mathscpdchat](#)



Rebecca Atherfold @becatherfold · Dec 6

...

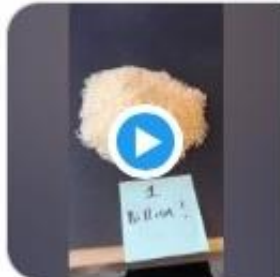
Replying to @Littlemissmath5 @CoreMathsCat and 2 others

10% of his net worth



Cat van Saarloos @CoreMathsCat · Dec 6

Replying to @becatherfold @JamesWMaloney and @equalitytrust
Yes, they are always fascinated by this video: [youtube.com/watch?v=_3VFmm...](https://www.youtube.com/watch?v=_3VFmm...) #mathscpdchat



youtube.com
Man Uses Rice to Visually Represent Jeff Bezos' N...
To purchase this video for media use visit
<http://video.storyful.com> For Storyful Newswire ...



Beth Turner @MissBTMaths · Dec 6

Replying to @CoreMathsCat @becatherfold and 2 others
I love this video! I show it all the time! Such a great way to help students understand just how big a billion is #CoreMathsChat #MathsCPDChat



Geoff Wake (and woke) 🇪🇺 🇺🇦 🇪🇺 @geoffwake1 · Dec 6

Replying to @CoreMathsCat @JamesWMaloney and @equalitytrust
Really interesting discussion.
And links to brilliant resources.
Interesting that maths teachers find this challenging.
Take a look at what students might be considering in other subjects - such as this Economics paper..
[#mathscpdchat](#)

MARK SCHEME – A-LEVEL ECONOMICS – 7136/1 – JUNE 2018

Essay 2

Total for this essay 40 marks

1 1 Explain how the Lorenz curve and Gini coefficient may be used to illustrate increasing income inequality in a country.

[15 marks]

Areas for discussion include:


- a clear diagram of the Lorenz curve correctly labelled
- explanation of how perfect equality and perfect inequality are represented
- explanation of how the shape of the curve relates to the cumulative proportions of income and population
- the connection between the Lorenz curve and the Gini coefficient
- how the Lorenz curve and Gini coefficient could be used to show increasing inequality. This is most likely to be done by using the diagram to show 2 Lorenz curves on the same axes.

The use of relevant diagrams to support the analysis should be taken into account when assessing the quality of the candidate's response to the question.

Use the levels mark scheme on page 16 to award candidates marks for this question.

-  **Cat van Saarloos** @CoreMathsCat · Dec 6 ...
Replying to @geoffwake1 @JamesWMaloney and @equalitytrust
Thanks for sharing @geoffwake1 - fascinating! #mathscpdchat
-  **James Maloney** @JamesWMaloney · Dec 6 ...
I think it's sometimes maths teachers being a little uncomfortable that maths can only take you so far in answering these questions. At some point, you have to take a leap. #CoreMathsChat #MathsCPDChat
-  **Geoff Wake (and woke)** 🇪🇺 🇺🇦 🇪🇺 @geoffwake1 · Dec 6 ...
Replying to @CoreMathsCat @JamesWMaloney and @equalitytrust
I'm not sure why as maths teachers we try to keep out of things that matter 😞
#mathscpdchat
-  **Geoff Wake (and woke)** 🇪🇺 🇺🇦 🇪🇺 @geoffwake1 · Dec 6 ...
Replying to @JamesWMaloney
There are no answers - but we should explore?
#mathscpdchat
-  **James Maloney** @JamesWMaloney · Dec 6 ...
Replying to @geoffwake1
Oh absolutely, I think it can make us uncomfortable though. Generalising, but things like the Core Maths Festival and some of the speakers can help us be more confident about covering this. #CoreMathsChat #MathsCPDChat
-  **Geoff Wake (and woke)** 🇪🇺 🇺🇦 🇪🇺 @geoffwake1 · Dec 6 ...
Replying to @JamesWMaloney
I have to drop this into this conversation before I have to leave link.springer.com/content/pdf/10..
Skovsmose is on the button in thinking about mathematics for social justice...
#mathscpdchat

Two other conversations resulted from replies to Q2. This one focused on a book that you can buy for more than a thousand pounds ...

-  **Yvonne Osborne** @MrsOsborneMATHS · Dec 6 ...
Replying to @JamesWMaloney
At the risk of more left-wing propaganda ;-), there was a set of resources from Amnesty that had a nice range of tasks from looking at profit distribution in chocolate production to different voting systems
#mathsCPDChat



James Maloney @JamesWMaloney · Dec 6

Replying to @MrsOsborneMATHS

Ooo, have you got a link? #CoreMathsChat #MathsCPDChat



Tom Rainbow @CoreMathsTom · Dec 6

Replying to @JamesWMaloney and @MrsOsborneMATHS

I was going to ask that! #MathsCPDChat #CoreMathsChat



Yvonne Osborne @MrsOsborneMATHS · Dec 6

Replying to @MrsOsborneMATHS and @JamesWMaloney

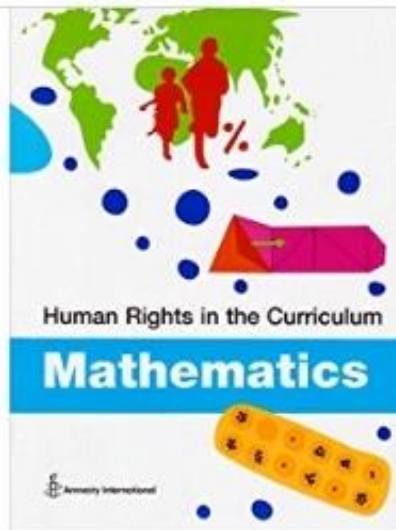
I am ancient and was given it when I did my PGCE. Will see if it's online somewhere.....#MathsCPDChat



Stuart Price ❤️👉 @sxpmaths · Dec 6

Replying to @CoreMathsTom @JamesWMaloney and @MrsOsborneMATHS

A bargain at £1200! 🤖



amazon.co.uk

Human rights in the curriculum: Mathematics

With this book secondary school teachers can teach Mathematics and Citizenship at the same time. The book addresses all the human rights...



Yvonne Osborne @MrsOsborneMATHS · Dec 6

Replying to @sxpmaths @CoreMathsTom and @JamesWMaloney

The irony of me selling the copy that I have and making a mahoosive profit after finding out on a thread about inequality 🤔



Tom Rainbow @CoreMathsTom · Dec 6

Replying to @sxpmaths @JamesWMaloney and @MrsOsborneMATHS

Hahaha. #MathsCPDChat #CoreMathsChat

... whereas in the following conversation an easier-to-purchase book was discussed:



Beth Turner @MissBTMaths · Dec 6

...

Replying to @JamesWMaloney

I've used resources from a summer festival session on illustrating data that showed how wealth was distributed in the population - students were really into this, asked lots of questions and we looked up lots of other facts of the back of it #CoreMathsChat #MathsCPDChat



Beth Turner @MissBTMaths · Dec 6

...

Replying to @MissBTMaths and @JamesWMaloney

Also an Economist resource that looks at how big a million/billion is, and the wealth of Elon Musk in relation to the GDP of a group of countries #CoreMathsChat #MathsCPDChat




Jude Mortimer @Littlemissmath5 · Dec 6

...

Replying to @MissBTMaths and @JamesWMaloney

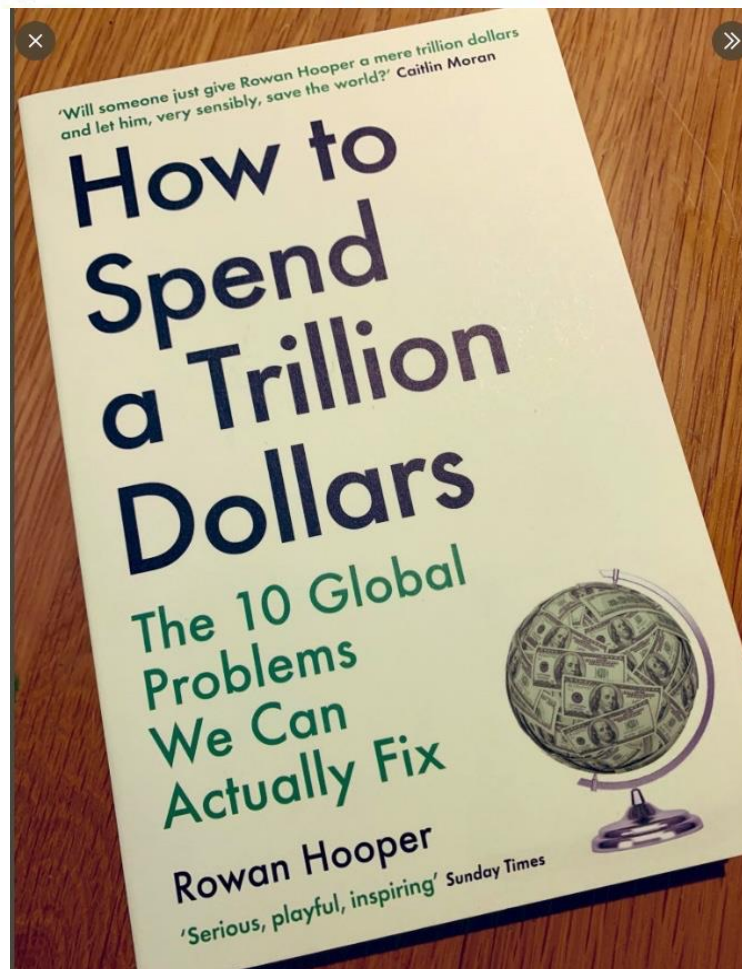
Have you seen @rowhoop's book How to spend a Trillion Dollars? It's one percent of world GDP and less than the world found to deal with Covid but according to the book could be spent to 'level up humans' (in amongst other options) #coremathschat #mathscpdchat



Rowan Hooper ローワン フーパー  @rowhoop · Dec 6





...

Replying to @Littlemissmath5 @MissBTMaths and @JamesWMaloney



-  **Beth Turner** @MissBTMaths · Dec 6 ...
Replying to @Littlemissmath5 @JamesWMaloney and @rowhoop
Looks interesting, I'll add it to the list!
-  **Rowan Hooper** ローワン フーパー  @rowhoop · Dec 6 ...
Replying to @MissBTMaths @Littlemissmath5 and @JamesWMaloney
Thanks - enjoy 📖📖📖📖📖
-  **James Maloney** @JamesWMaloney · Dec 6 ...
Replying to @Littlemissmath5 @MissBTMaths and @rowhoop
I need to read this book! #MathsCPDChat #CoreMathsChat
-  **Rowan Hooper** ローワン フーパー  @rowhoop · Dec 6 ...
Replying to @JamesWMaloney @Littlemissmath5 and @MissBTMaths
Do please and let me know!

In addition to the interactions (shown above) prompted by James' Q2, there were four 'single' replies to that question (repeated as a reminder):

-  **James Maloney** @JamesWMaloney · Dec 6 ...
You've sort of got there before me but...
- Q2 – Maths, Inequality and Context
Have you ever used Inequality as a context in your maths lessons? Tell us about it. #MathsCPDChat #CoreMathsChat
-  **Tom Rainbow** @CoreMathsTom · Dec 6 ...
Replying to @JamesWMaloney
Not so much when I was teaching Core Maths...but I wish I had. I was pretty rubbish at knowing how to use context when I was teaching, doing my current job has been massive in my development as a user of context. Wish I had the AMSP at the time! #MathsCPDChat #CoreMathsChat
-  **Jude Mortimer** @Littlemissmath5 · Dec 6 ...
Replying to @JamesWMaloney
I've looked at the gender pay gap before and plotted data onto boxplots on desmos to compare. Can't remember where the data came from rn though. #coremathschat #mathscpdchat
-  **Jude Mortimer** @Littlemissmath5 · Dec 6 ...
Replying to @JamesWMaloney
and the Gini coefficient in Integral #coremathschat #mathscpdchat



Conyers Maths @ConyersMaths · Dec 6

Replying to @JamesWMaloney

Looking at Inflation at the moment and discussing the "Vimes' boots" principle that price rises at the budget end are much greater than at the luxury end.

The host's third main question ...



James Maloney @JamesWMaloney · Dec 6

A step back...

Q3 – Maths, Inequality and Students

How do your students view inequality? Do they link it to maths at all? Are there types of inequality they focus on? [#MathsCPDChat](#)

[#CoreMathsChat](#)

(My pictures have saved very weirdly!)



... prompted the following conversation, which was a catalyst in the setting up of a new Twitter project (a new maths-related book club):



Yvonne Osborne @MrsOsborneMATHS · Dec 6

Replying to @JamesWMaloney

Reading "I can't do Maths" by Coles and Sinclair with my Maths Hub

[@JurassicMaths](#) . Chapter 3 about Maths and Culture resonates here. What is pupils perception of inequality? [#MathsCPDChat](#)



James Maloney @JamesWMaloney · Dec 6

I already have too many books!! 😂 [#MathsCPDChat](#) [#CoreMathsChat](#)



Rebecca Atherfold @becatherfold · Dec 6

Replying to @JamesWMaloney

This one is a good one though - it's very readable and not long

[#coremathschat](#) [#mathscpdchat](#)



Elizabeth Hopker @lihopker · Dec 6

...

Replying to @JamesWMaloney

Another book which is interesting is Beyond Measure: The Hidden History of Measurement by @jjvincent which links to how measurement has affected society and vice versa throughout history #CoreMathsChat #MathsCPDChat



James Maloney @JamesWMaloney · Dec 6

...

Replying to @lihopker and @jjvincent

Is this place to ask you all to get me book-based Christmas presents? #MathsCPDChat #CoreMathsChat



Rebecca Atherfold @becatherfold · Dec 6

...

Replying to @JamesWMaloney @lihopker and @jjvincent

We need a maths book club!



Jude Mortimer @Littlemissmath5 · Dec 7

...

Replying to @becatherfold @JamesWMaloney and 2 others

I see where it began!!

Replies to the fourth main question ...



James Maloney @JamesWMaloney · Dec 6

...

Just to keep things in order, but lots already on the hashtag

Q4 – Maths, Inequality and Resources

What sources/resources can you share that might help a maths teacher use an inequality context in their lessons? #MathsCPDChat #CoreMathsChat



... pointed to a variety of useful resources and plans-of-action in the following conversation ...



James Maloney @JamesWMaloney · Dec 6

...

Replying to @JamesWMaloney

Some that haven't been mentioned yet:

The Equality Trust have produced a lesson on The Impact of Inequality.

#MathsCPDChat #CoreMathsChat

equalitytrust.org.uk/sites/default/...



docs.google.com

Lesson 3 PPT

#EqualPay50 series Lesson 3: The impact of income inequality



James Maloney @JamesWMaloney · Dec 6

...

An interesting article on

Inequality in London from World Mapper with a range of charts.

london.worldmapper.org/analysis/inequ... #MathsCPDChat

#CoreMathsChat



Elizabeth Hopker @lihopker · Dec 6

...

Replying to @JamesWMaloney

@Littlemissmath5 - this is something we should talk about in our next London and the South East Core maths network meeting.

@JamesWMaloney - thank you for linking it! #CoreMathsChat

#MathsCPDChat



Jude Mortimer @Littlemissmath5 · Dec 6

...

Replying to @lihopker and @JamesWMaloney

yes! #coremathschat #mathscpdchat

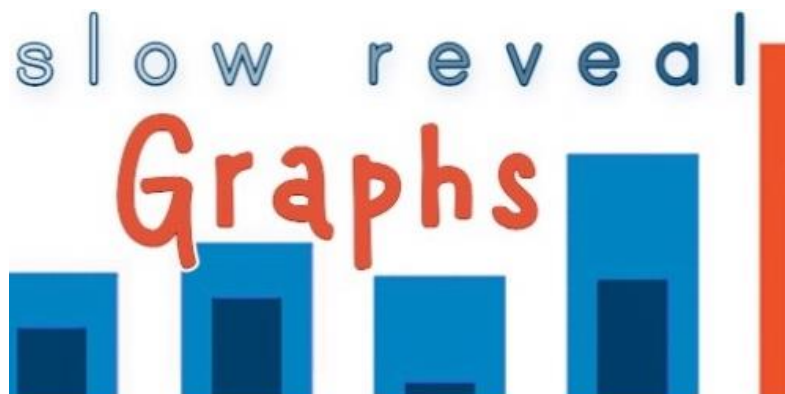


James Maloney @JamesWMaloney · Dec 6

...

Slow Reveal Graphs: slowrevealgraphs.com/2022/03/03/wor...

#MathsCPDChat #CoreMathsChat



slowrevealgraphs.com

Slow Reveal Graphs

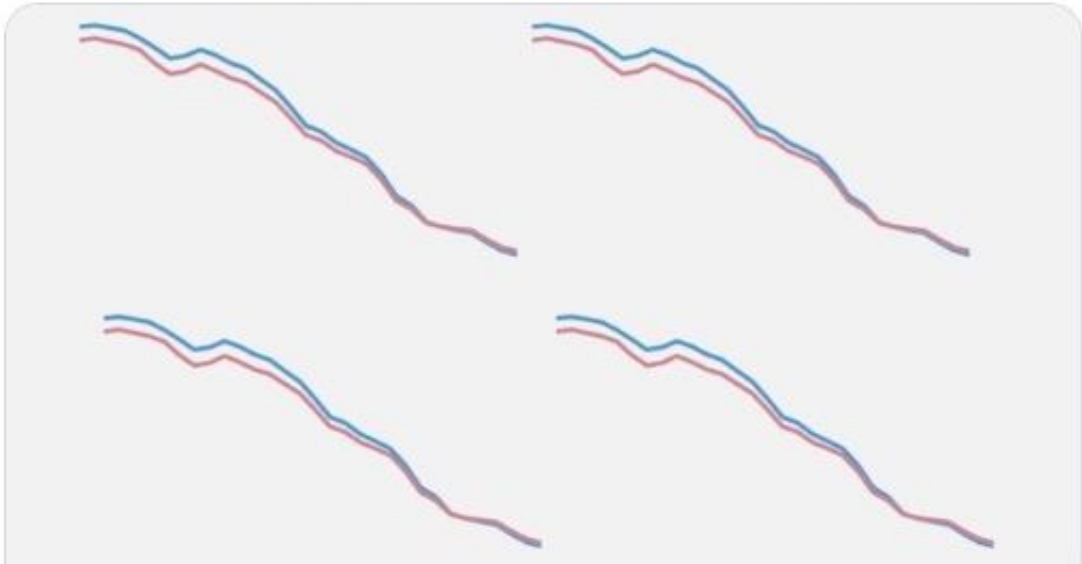
Learn more about Slow Reveal Graphs: an instructional routine that promotes sensemaking about data.



James Maloney @JamesWMaloney · Dec 6

...

An interesting to be had here, with recent changes, [@ourworldindata](#) recently updated their site about the International Poverty Line ourworldindata.org/from-1-90-to-2... #MathsCPDChat #CoreMathsChat



ourworldindata.org
From \$1.90 to \$2.15 a day: the updated International Poverty Line
The World Bank has updated the methods it uses to measure incomes and poverty around the world. What does this mean for our ...



Elizabeth Hopker @lihopker · Dec 6

...

Replying to [@JamesWMaloney](#) and [@OurWorldInData](#)
In a recent [@reflectivemaths](#) Core Maths Newsletter, there was a really interesting section on rising food costs which could link into this! #CoreMathsChat #mathsCPDchat



Dave Gale @reflectivemaths · Dec 6

...

Replying to [@lihopker](#) [@JamesWMaloney](#) and [@OurWorldInData](#)
Thanks for the mention :-)



Mary Pardoe @PardoeMary · Dec 6

..

Replying to [@lihopker](#) [@JamesWMaloney](#) and 2 others
You can subscribe here: 1a4d0cd6.sibforms.com/serve/MUIEABWu #mathscpdchat



Dave Gale @reflectivemaths · Dec 6

...

Replying to [@PardoeMary](#) [@lihopker](#) and 2 others
Good promoting work - thanks :-)

... and in this:



Tom Rainbow @CoreMathsTom · Dec 6



Replying to @JamesWMaloney

I think Engel's Law is a really interesting idea. I first became aware of it from the 2019 OCR Core Maths pre-release. It's basically the proportion of household income that is spent on food: en.wikipedia.org/wiki/Engel%27s...

#MathsCPDChat #CoreMathsChat



James Maloney @JamesWMaloney · Dec 6



Replying to @CoreMathsTom

We had some thought-provoking talk comparing absolute and relative poverty from that pre-release. #MathsCPDChat #CoreMathsChat



Tom Rainbow @CoreMathsTom · Dec 6



Replying to @CoreMathsTom and @JamesWMaloney

Also, in the same pre-release, UN Poverty value was set at \$1.90, now it seems as though it's \$2.15. Has it gone up more or less quickly than global inflation in that time? worldbank.org/en/topic/measu...

#MathsCPDChat #CoreMathsChat



Tom Rainbow @CoreMathsTom · Dec 6



Replying to @CoreMathsTom and @JamesWMaloney

@JamesWMaloney Didn't see you had already posted about this! Great minds and all that! #CoreMathsChat #MathsCPDChat

The host followed his last main question ...



James Maloney @JamesWMaloney · Dec 6

Thinking beyond the resources....

Q5 – Maths, Inequality and Hope

By linking Inequality and Maths in your future lessons, what do you hope for?

[#MathsCPDChat](#) [#CoreMathsChat](#)



... with these observations:



James Maloney @JamesWMaloney · Dec 6

Replying to [@JamesWMaloney](#)

A5 – I need to do more to look at different types of inequality. I've focused on income inequality so far. I hope to expand that and help students take their interest in this topic further. Using maths to help explain the world.

[#MathsCPDChat](#) [#CoreMathsChat](#)

There were two single responses ...



Cat van Saarloos @CoreMathsCat · Dec 6

Replying to [@JamesWMaloney](#)

There is a teaching maths for social justice network with [@PeteWrightIOE](#) that people might be interested in joining: mathsocialjustice.org

[#mathscpdchat](#)



mathsocialjustice.org

Home

Teachers of mathematics committed to addressing issues of equity and social justice in the classroom.



Beth Turner @MissBTMaths · Dec 6 ...

Replying to @JamesWMaloney

For students to have a better understanding of where inequality can be found and what it means, and hopefully for them to go out into the world looking to fix some of those problems! #CoreMathsChat #MathsCPDChat



James Maloney @JamesWMaloney · Dec 6 ...

I'd like that too. Lots of my students are already on that journey and I think Core Maths can help them! #MathsCPDChat #CoreMathsChat

His Q5 generated this conversation ...



Beth Turner @MissBTMaths · Dec 6 ...

Replying to @JamesWMaloney

For students to have a better understanding of where inequality can be found and what it means, and hopefully for them to go out into the world looking to fix some of those problems! #CoreMathsChat #MathsCPDChat



Tom Rainbow @CoreMathsTom · Dec 6

Replying to @MissBTMaths and @JamesWMaloney

I'm convinced that the route to happiness is equality - there's a reason why the Scandinavian Countries are rated so highly here (in fact the UK is the outlier in the top ten): slow-journalism.com/infographics/i..

#CoreMathsChat #MathsCPDChat



slow-journalism.com

Infographic: The best and worst countries in the world

For our book of infographics, An Answer For Everything, we produced a meta-list that tracks the 'best country' indices published by NGOs an...



Tom Rainbow @CoreMathsTom · Dec 7

Replying to @CoreMathsTom @MissBTMaths and @JamesWMaloney

Why is the UK in the top ten? It seems to be mainly because we have made strides environmentally (that's undoubtedly a good thing) and because we have world class universities. We don't seem to feature in the top ten societally at all! #CoreMathsChat #MathsCPDChat



Tom Rainbow @CoreMathsTom · Dec 6

Replying to @CoreMathsTom @MissBTMaths and @JamesWMaloney

I think it's worth the risk of veering into political discussions if your students leave school realising that there is more than enough money out there for everyone to live a comfortable life...let the maths guide them to that conclusion! #CoreMathsChat #MathsCPDChat



Dimitris Georgalis @pelkiotis · Dec 7

Replying to @CoreMathsTom @MissBTMaths and @JamesWMaloney

I thought that was a prerequisite for us, to make students critical thinkers. I couldn't agree more with you

... and a question from Heather Scott prompted more thoughts:



Heather Scott @MathsladyScott · Dec 6

Replying to @JamesWMaloney

Is there a way of using maths to propose a model for reducing inequality? What is fair and equitable for all to have a happy life? #MathsCPDChat #CoreMathsChat



Mary Pardoe @PardoeMary · Dec 6

Replying to @MathsladyScott and @JamesWMaloney

Supporting *everyone* in their learning helps?!
jinjaedtrust.com/wp-content/upl... #mathscpdchat #CoreMathsChat



Mary Pardoe @PardoeMary · Dec 6

#mathscpdchat #CoreMathsChat



bernie westacott @berniewestacott · Jul 16

The teachers here are doing an amazing job. In some schools we are seeing them engaging and inspiring classes of 50-60 plus pupils. Twinkle school nursery class - 2nd picture - had 65 in that day - you can see some of them in the picture. One nursery class we visited had 85!!



There were three contributions to the chat that were independent of the host's questions. This

was one of them ...



Dave Bowman @Maths4ukplc · Dec 6

...

#coremathschat #mathscpdchat Somewhat tenuous link to inequality but I think maybe inequality of beliefs of students . Wouldn't it be better to show this data rather than "flight paths". Look what "low attaining" KS2 can achieve! And how "high fliers" need to keep working!

2019 transition – using "old" KS2 nomenclature

Pupil Numbers		KS4 Attainment									
		U	1	2	3	4	5	6	7	8	9
KS2 Attainment	W	13	10	23	11	7	4	3	2	3	0
	1	147	97	48	31	12	8	8	5	0	1
	2	2,637	4,444	2,229	924	390	158	57	33	16	3
	3c	814	2,545	2,173	1,230	567	138	32	10	8	0
	3b	850	3,347	3,521	2,311	1,149	362	67	39	12	4
	3a	809	4,344	6,340	5,206	3,009	815	142	67	22	8
	4c	823	4,573	10,231	12,877	10,575	3,299	621	216	49	8
	4b	798	3,576	10,218	20,099	27,058	12,716	3,047	1,119	302	37
	4a	455	1,603	5,445	15,020	36,052	27,777	10,267	4,695	1,458	224
	5c	175	350	1,293	5,089	23,389	32,417	21,922	14,578	6,644	1,374
	5b	44	48	121	767	5,803	14,870	19,513	23,033	19,754	8,988
	5a	3	0	5	13	185	829	2,081	4,205	7,239	8,013



Tom Rainbow @CoreMathsTom · Dec 6

...

Replying to @Maths4ukplc

Hi Dave, good to 'see' you. Hope all is well! #CoreMathsChat #MathsCPDChat



Dave Bowman @Maths4ukplc · Dec 6

...

Replying to @CoreMathsTom

Yes thanks Tom. Still lurking and trying to promote #YesUCan ! Keep promoting that Core Maths. #mathscpdchat #coremathschat



Tom Rainbow @CoreMathsTom · Dec 6

...

Replying to @Maths4ukplc

Try to stop me 😊 . #CoreMathsChat #MathsCPDChat



Tom Rainbow @CoreMathsTom · Dec 6

...

Replying to @Maths4ukplc

I toyed with quoting from Sunday's Observer regarding public schools and subsequent jobs (eg 7% of students go to public school but >50% of judges went to public schools)...but I didn't! For those of you interested it's the lead comment this week. #CoreMathsChat #MathsCPDChat

... this was another ...



MathSmart Martin Newton @martinnewton112 · Dec 6

#MathsCPDChat @JamesWMaloney bit late to the party but 'How to crack the glass ceiling' discussing inequality in the work place. Even a bit bar modelling thrown in for good measure.



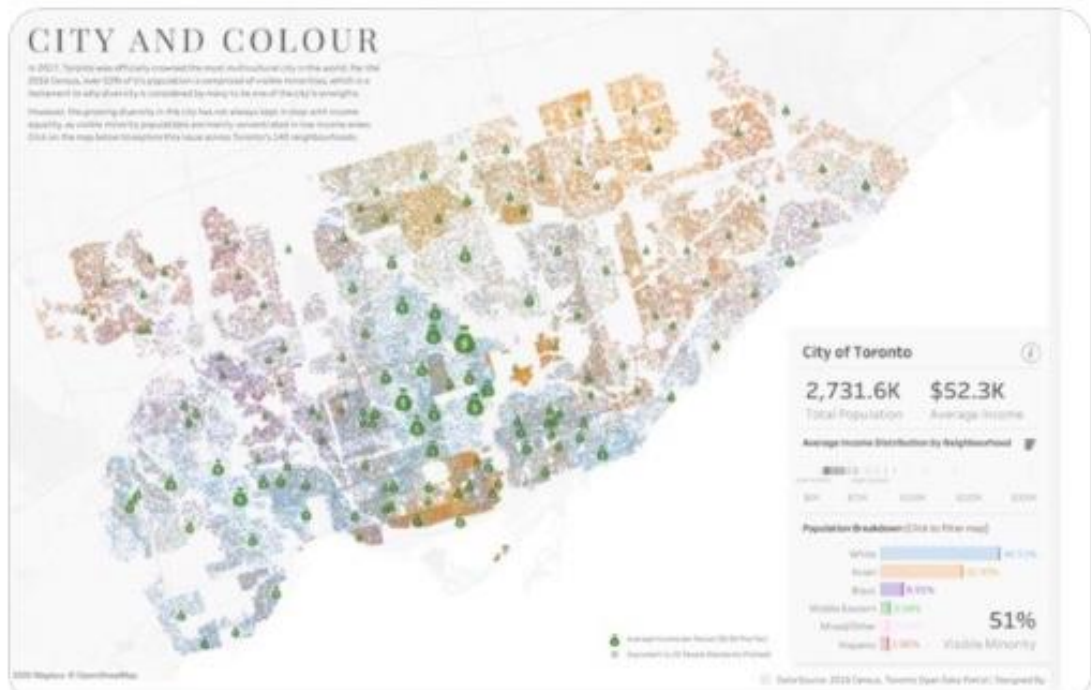
... and the third was an extra question from the host himself, which prompted more thoughts:






James Maloney @JamesWMaloney · Dec 6


And finally, a Slow Reveal Graph I found.
What do you think? How could you use it in class?

slowrevealgraphs.com/2020/10/26/inc... #MathsCPDChat
#CoreMathsChat



-  **Beth Turner** @MissBTMaths · Dec 6 ...
Replying to @JamesWMaloney
This looks a bit like the @skewthescript resource for sampling, which does show some really interesting things about inequality #CoreMathsChat #MathsCPDChat
-  **Elizabeth Hopker** @lihopker · Dec 6 ..
Replying to @JamesWMaloney
Plenty here for a What do you notice? What do you wonder? activity. Percentage change, estimation questions, graphical interpretations - the more I look, the more I see how it could be used in a classroom! #CoreMathsChat #MathsCPDChat
-  **James Maloney** @JamesWMaloney · Dec 6 ...
Replying to @lihopker
I wish there was similar for somewhere in the UK, but I did this today and the students did wonder... what would Manchester or Stoke look like? 😊 #MathsCPDChat #CoreMathsChat
-  **Elizabeth Hopker** @lihopker · Dec 6 ...
Replying to @JamesWMaloney
Hmmm, this sounds like a project to do! ONS data would have a lot of the info, it's just putting it all together... though mapping it out could be tricky #MathsCPDChat #CoreMathsChat
-  **James Maloney** @JamesWMaloney · Dec 6 ...
Replying to @lihopker
Yep, my visualisation skills are....
-  **Tom Rainbow** @CoreMathsTom · Dec 6 ...
Replying to @JamesWMaloney and @lihopker
...until you come to the Core Maths Festival session on January 28 that is... #CoreMathsChat #MathsCPDChat

The following screenshots show some responses when James closed the chat:

-  **James Maloney** @JamesWMaloney · Dec 6 ...
And just like that... the hour is up! Thank you everyone for your contributions tonight. Don't forget you can add to the chat in the coming weeks. It'd be great to hear if you've used anything and how things have gone. #MathsCPDChat #CoreMathsChat





mathscpdchat @mathscpdchat · Dec 6

...

Replying to @JamesWMaloney

VERY many thanks, James, @JamesWMaloney, for arranging and hosting a really fascinating and informative #mathscpdchat combined with #CoreMathsChat tonight! MANY thanks for all contributions. Look out for a summary with all links shared tonight in one place!



James Maloney @JamesWMaloney · Dec 6

...

Replying to @mathscpdchat

You're welcome. So many great ideas and contributions from everyone! #CoreMathsChat #MathsCPDChat



Tom Rainbow @CoreMathsTom · Dec 6

...

Replying to @JamesWMaloney

Thanks so much for taking the time to make this happen James. A great #CoreMathsChat #MathsCPDChat



Cat van Saarloos @CoreMathsCat · Dec 6

...

Thanks so much for hosting a brilliant chat as always @JamesWMaloney! #mathscpdchat



Heather Scott @MathsladyScott · Dec 6

Thank you for an interesting discussion tonight - loads of ideas and food for thought 😊 [twitter.com/JamesWMaloney/...](https://twitter.com/JamesWMaloney/)