Factfulness: KS3 / Scheme of Work - a collaborative document

"An indispensable guide to thinking clearly about the world" - Bill Gates

'Factfulness' was published in the UK in hardback in **April 2018.**
It was written by Hans Rosling, in association with Ola Rosling and Anna Rosling Ronnlund, of the Gapminder Foundation.

There are some existing teaching resources for Gapminder which are worth taking a look at, and which we will reference: https://www.gapminder.org/for-teachers/

There are **10 instincts** which lead people to misinterpret the world, and these are explored and unpicked in the book, and therefore in the forthcoming scheme as well.
These could become **ten sessions** (which is more open in terms of timing than lessons) as part of a finished scheme, that users could pick from - there is no compulsion to complete all ten sessions.
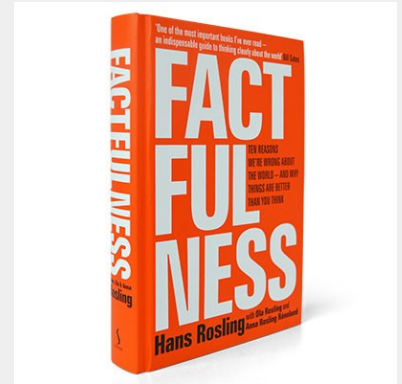These sessions will introduce the key misconceptions in the book, and also connect with some of the ideas in the **GCSE Specifications** of the main awarding bodies.
Elements of this could also form part of a GCSE course, covering some of the skills element, as well as topics such as Development.
Ola Rosling has made available all the slide decks from Hans' talks here:
https://drive.google.com/drive/folders/0B9jWD65HiLUnTTJNQ3Bna2w2blU - these could 'become' an important part of the main teaching resource, and save time producing further new slide decks. The slides can be used, with proper attribution, so there will also be some usage in new presentations.
Remember to attribute any CC licensed items from Gapminder / Dollar Street that you use in your work to model good practice for students.

> **📌 Pinned Tweet**
>
> **Ola Rosling** @OlaRosling · 23 Jun 2015
> I just coind the term Factfulness: The stress-reducing habit of only carrying oppinions for which you have strong supporting facts.
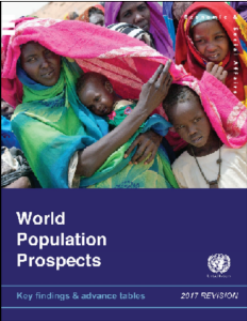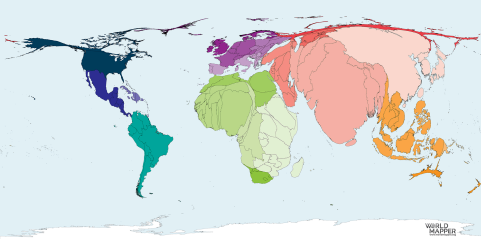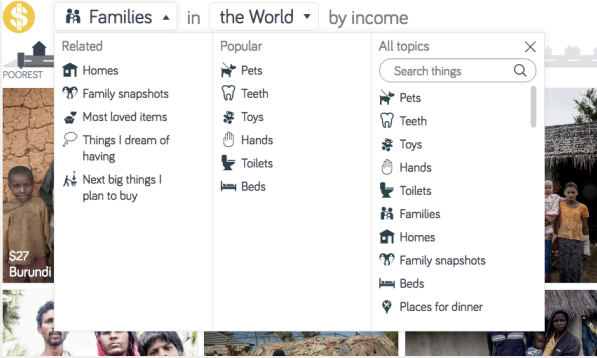>
> 💬 33   ⟲ 303   ♡ 377   ✉

Section and content	Teaching and Learning - key knowledge and skills - enquiry questions	Resources	Other notes on this session e.g. NC curriculum / GCSE spec links
1. What is 'Factfulness'?' It may be worth launching this scheme with a whole school assembly / year group assembly so that the significance of this book is made clear to everyone. This might also facilitate some cross-curricular links with colleagues. ***Thanks to Catherine Owen for sharing a resource (see folder)***	Introduction to the idea of **Factfulness**: the book and the man who started it off: **Hans Rosling** What is factfulness? How factful are you? Are you more intelligent than a chimpanzee? You can take the Factfulness test here - students to do this now (and at the end of the unit) - start the unit with this test http://forms.gapminder.org/s3/test-20h18 Some thoughts on Factfulness are in this document here Go to menti.com Use code 93 49 05 E.g. https://informationisbeautiful.net/visualizations/mountains-out-of-molehills/	You can take the Factfulness test here, at the start of the unit - http://formsb.gapminder.org/s3/test-2018 May want to show Ola Rosling's video from the Facebook group: https://www.facebook.com/gapminder.org/videos/2008348509200097/	Need to put together a list of useful sites to obtain 'facts' / data which can be referred to, or which visualise data accurately. Also some sites which may not be so factual. By the end of the unit, students should be able to distinguish between them. https://www.google.com/publicdata/directory
2. Mind the Gap - how should we best describe global development?	Introduce the binary method of defining development, and how this has moved to 3 levels with the new GCSEs Introduce the **4 Income Levels** that Hans	Need a copy of the Gapminder World map 2015 version Gapminder Card Game:	List of ACs, EDCs and LIDCs (GCSE terminology) http://www.ocr.org.uk/qualifications/by-subject/geograp

	proposes, which are referenced in other sections of the book, and the rationale that lies behind them, Exploring how we describe countries: ACs, EDCs and LIDCs (GCSE terminology) Channel 4: Hans Rosling interview: https://www.youtube.com/watch?v=1vr6Q77lUHE Use the Mountain chart to explore this (can be embedded onto a VLE page) http://bit.ly/2rMxgPW	https://www.gapminder.org/downloads/card-game/	hy/geography-news/why-acs-edcs-and-lidcs/
3. Where in the world are negatives turning into positives?	Following the test questions, students will explore some of the positive steps being taken in the world. Pp.60-3 - 32 things which have improved. Half are bad things decreasing, half are good things increasing. Could become a Higher or Lower game, with arrows to hold up. Development indicators and their relative value.	The Magic Washing Machine PPT	SDGs may be mentioned here (MDGs in the GCSE specs) https://sustainabledevelopment.un.org/sdgs
4. When is a straight line not a straight line?	Exploring trends in data and the tendency to believe they will continue in a straight line (or even an upward curve)	Stories on population growth	What do you think of the Population Matters critique of Hans' ideas on future

	Introduced using the story of Ebola: https://www.bbc.co.uk/programmes/p02mrlx5 Exploring future population growth trends and family size The inevitable fill-up effect is explained here. Can students produce their own explainer video for a related issue. Use the Trends chart, which can be embedded onto a VLE page http://bit.ly/2L2MM2a	World Population Prospects Key findings & advance tables 2017 REVISION Malthus & Boserup (an introduction to their thinking) NYT article: https://www.wsj.com/articles/in-japan-doing-more-with-less-means-getting-a-robot-to-milk-your-cows-1525611603 Fill-up effect, plus Vimeo film: https://www.gapminder.org/topics/population/fill-up/ Resource I produced previously on Malthus and Boserup (download or view here)	population growth here? https://www.populationmatters.org/population-factfuless/
5. What have we got to be afraid of? AKA Is the world	This session will use various data sources to help students evaluate whether the world is a	Connect with the Session 1 activities in British Red Cross pack on Nepal	Ben Fogle currently attempting to climb Everest

becoming a more dangerous place to live?	riskier place than it used to be. On the one hand, on the other hand sheet "To what extent…" - wording of questions to be used in exams higher up the school Risky World - natural hazards - connection with ideas of **Professor Spiegelhalter** from Cambridge 'Professor Risk' YouTube clip from Cambridge Ideas: https://www.youtube.com/watch?v=a1PtQ67urG4 Introduces the idea of the micromort. https://understandinguncertainty.org/files/animations/Micromorts/Micromorts.html Nepal Earthquake 2015 as a focus (mentioned on p.107) Aid: what type of aid is needed the most? https://medium.com/@karenmerzenich/stop-donating-goods-to-disaster-victims-what-they-need-is-money-c818bc394131	Earthquake - downloadable from https://www.redcross.org.uk/get-involved/teaching-resources/natural-disasters-earthquakes These could form the basis for the resource on this chapter.	to raise money for British Red Cross work in Nepal - videos here: http://blogs.redcross.org.uk/international/2018/04/climbing-mt-everest-ben-fogle-victoria-pendleton/
6. Do we always appreciate the scale of a problem? AKA Where will the majority of the world's people be living	Big or small? How do we misunderstand the scale of some events? Can scale be misused? Trump and inauguration crowd image? Population growth: what number are you?		Population distribution and density https://worldmapper.org/maps/?_sft_product_cat=people - Check other relevant population

in 2050?	Population distribution / birth and death rates The changing pattern of global population, and the connection with migration. Box by box: https://www.youtube.com/watch?v=fTznEIZRkLg Students to create their own infographic using small props in the same style.	World Population 2050 - CC licensed, and obtained from Worldmapper (see link in next column)	maps too
7. Why might the world not be as divided as you think? **AKA** **How divided is the world in reality?** (image: Dollar Street logo)	Avoiding generalisations. Generalisation or truth activity. Producing an article for Dollar Street website in the style of some of the existing ones (see the right hand column for an example) https://www.gapminder.org/dollar-street/about Ted Talk from Anna Rosling-Ronnlund - 17 minutes - transcript available: https://www.ted.com/talks/anna_rosling_ronnlund_see_how_the_rest_of_the_world_lives_organized_by_income?utm_source=twitter.com&utm_medium=social&utm_campaign=tedspread **New version of Dollar Street now available from May 2020**	Dollar Street is being used here. I produced a previous Google Doc on this previously: https://docs.google.com/document/d/1Xt9AyZCaEbO8J3AIULyRrCW7u6JWxQR9dMD3pKvQxjc/edit Some resources needed to guide student in their use of the website. A 7 step tutorial document has been produced by Dollar Street: Tutorial document (also on Google Drive) https://drive.google.com/file/d/0B0HB08a-a9MbQWJURkxfQl94Snc/view Guide for student use here: https://docs.google.com/document/d/1ojnqLwT7XmtITJynSUzPbytOUhRloyE7xl-iT1XQsks/edit	There are some existing Dollar Street articles e.g. roofs https://www.gapminder.org/dollar-street/article/546ccf730f7ddf45c0179631

		Also useful Time article on the ideas behind Dollar Street: http://time.com/5087361/this-designer-wants-to-prove-the-world-isnt-as-divided-as-we-think/ Bill Gates is a big fan too: https://www.gatesnotes.com/Development/Exploring-Dollar-Street How about students submitting pictures of their own to create a class version of Dollar Street. The guidance for photographers is included on the site:	
8. How can we change the direction of an entire continent? Should we always believe the numbers?	Start with a look at models of how countries change over time e.g. Rostow, DTM - these are contentious (Margaret Roberts) Africa: a lost continent? **Slow change is not no change** - it is still change. Cape Town: Day Zero Water Crisis - using materials developed for ECOLINT conference https://www.slideshare.net/GeoBlogs/running-on-empty-v2 -and the news story https://amp.theguardian.com/world/2018/may/04/back-from-the-brink-how-cape-town-cracke	Stories of success in Africa to show how it is changing for the better. Tackling some of the stereotypes. Avoiding the reliance on numbers. Connection with health indicators.	

	[d-its-water-crisis](#)		
9. How can we stop playing the blame game?	'Othering' and the position of migrants, followed by The role of technology in changing lives - Magic Washing Machine.	TED Talk on 'The magic washing machine': https://www.ted.com/talks/.hans_rosling_and_the_magic_washing_machine Ai Wei Wei film: 'Human Flow' - now available on DVD Also chapter in William Atkins book.	Looking for systems as a solution to the problem, rather than the cause of the problem.
10. Which global challenges are the most urgent?	Global Warming and the issue of urgency. Five global risks we should worry about: 1) Global Pandemic 2) Financial Collapse 3) World War III 4) Climate Change 5) Extreme poverty Take small steps Identify what some of those small steps might be (link to Sustainable Development Goals) One focus for many is **Ocean Plastics**. We are told that there will be *more plastic than fish in the oceans by 2050* http://marinelitter.no/ - explore the issues	Global Warming resources are numerous, but need to be chosen so that they compliment the messages in Factfulness, particularly the more positive ones. Perhaps refer to Gaia Vince's book on the Anthropocene, which has some positives. Add in session I am going to be leading at the SAGT Conference in October 2018	FIGHT LIKE YOUR WORLD DEPENDS ON IT an inconvenient sequel TRUTH TO POWER IN THEATRES JULY 28

	using this site.		
11. Using our Factfulness (an optional 'assessment' or reflection task)	Final activity / assessment / reflection task Rule of Thumb sheet: https://www.scribd.com/document/378567098/Factfulness-Rules-of-Thumb You can take the Factfulness test again if required, to see the difference - http://forms.gapminder.org/s3/test-2018 Another option would be for students to present a mini Ted-style talk of their own - banners and props could be created in TED style - here's an example which was shared by Gapminder recently of an 8 year old boy https://www.youtube.com/watch?v=D-aFyXMl6a8	Results of test at the start, and retest, or compare with own country and how people did in the test. http://forms.gapminder.org/s3/test-2018	

Teaching Checklist

Need to refer to the checklist on p.248 of the book.
The resource (as it develops) needs to tackle these areas)

Rules of Thumb
Illustrations in the chapter endings and also listed on p.256
Available online here: https://www.scribd.com/document/378567098/Factfulness-Rules-of-Thumb

P. 256 - **could perhaps use these icons at stages in the resource, to show when a particular rule of thumb is being explored.**

References

Set text: Factfulness - Rosling et al (Sceptre, 2018) - available from all good bookshops - support your local independent store.
Page references in this document are to the Hardback First edition with an orange cover
There is a full bibliography of facts in the Notes appendix starting on p.275
Also download them here: https://drive.google.com/file/d/1aO2VLdhPJ-XXD8mW1gzkGIK6eETFt_yD/view as a PDF if you prefer (added April 6th)

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Websites

Gapminder World: https://www.gapminder.org/
Animated Gapminder Tools: https://www.gapminder.org/tools/
Dollar Street: https://www.gapminder.org/dollar-street/matrix
You can take the Factfulness test here - plus some useful images
http://forms.gapminder.org/s3/test-2018
Another version here: https://samgis.se/wp-content/uploads/2016/12/Gapminder-factfulness-and-projects.pdf
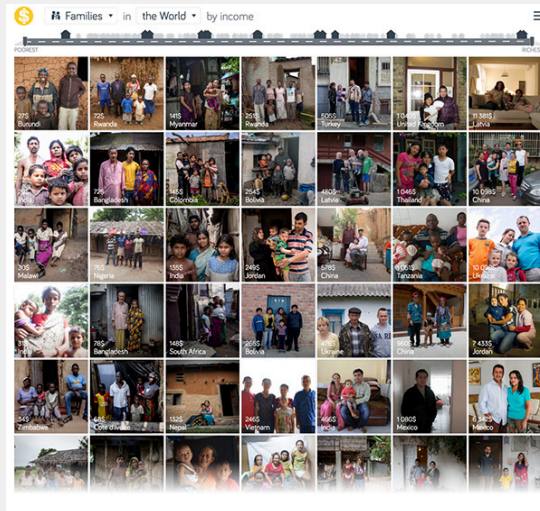
Join the Gapminder Facebook group here: https://www.facebook.com/gapminder.org/
https://www.facebook.com/gapminder.org/videos/2008348509200097/ for video
There is also a group for the Gapminder

Gapminder World Poster 2015: available as a PDF download https://www.gapminder.org/downloads/updated-gapminder-world-poster-2015/
-   Shows the 4 income levels (useful resource for Lesson 2)
-   Can be used freely

- Dollar Street has no political or financial agenda. Licensed by Creative Commons license 4.0, you are free to reuse, edit and share the images. We hope you will enjoy it!

Worldmapper - cartograms fit nicely with Hans' statistics and help show the patterns of some key indicators
New site launched 2018: http://www.worldmapper.org/

Google Public Data explorer: https://www.google.com/publicdata/directory - adapted the bubble visualisations developed by Gapminder for use with public data sets

Gates Notes: https://www.gatesnotes.com/Books/Factfulness

YouTube / TED Talks

Hans Rosling: https://www.ted.com/talks/hans_rosling_shows_the_best_stats_you_ve_ever_seen

TEDx Singapore: https://www.youtube.com/watch?v=nh94kK05l-M

Let my dataset change your mindset: https://www.ted.com/talks/hans_rosling_at_state

Anna's Dollar Street:
https://www.ted.com/talks/anna_rosling_ronnlund_see_how_the_rest_of_the_world_lives_organized_by_income?utm_source=twitter.com&utm_medium=social&utm_campaign=tedspread

There is also a transcript available in various languages which has been saved to the folder (in English) for possible use as another resource.

Also discussion on TED Talk could be used to produce some opinions for students to consider, and also perspectives…
https://www.ted.com/talks/anna_rosling_ronnlund_see_how_the_rest_of_the_world_lives_organized_by_income/discussion

Google Stats: based on the tools that Gapminder created

Twitter
Anna Rosling Ronnlund: https://twitter.com/AnnaGapminder
Ola Rosling: https://twitter.com/OlaRosling
Gapminder Foundation: https://twitter.com/Gapminder

Tim Harford, the economist, wrote an appreciation of Factfulness: http://timharford.com/2018/04/in-praise-of-factfulness/

Pinterest Board: Started in April 2018: request to be added as an editor to access and add further images:
https://www.pinterest.co.uk/geoblogs/factfulness-scheme/

Noel Jenkins blog: http://www.digitalgeography.co.uk/archives/2007/01/gapminder-some-teaching-ideas/
BBC Radio 4 Book of the Week - currently unavailable to listen sadly, but will contact BBC and see if it can be made available
https://www.bbc.co.uk/programmes/b09yshws/episodes/guide

Nature article: https://www.nature.com/news/three-minutes-with-hans-rosling-will-change-your-mind-about-the-world-1.21143

Books

Relevant GCSE Geography Textbooks
Geographical Association KS3 Toolkit -'Mind the Gap'
https://www.geography.org.uk/Shop/Publication-series/KS3-toolkit/Geography-Teachers-Toolkit-Mind-The-Gap-How-is-development-changing-in-Southeast-Asia-and-beyond/9781843773740 - focus on S.E. Asia but can adapt for African context

Audio
LSE Public Lecture from April 2018 - Audio only -
http://www.lse.ac.uk/website-archive/newsAndMedia/videoAndAudio/channels/publicLecturesAndEvents/player.aspx?id=4045

Newspapers

Globe and Mail (August 2018):
https://www.theglobeandmail.com/canada/article-take-off-the-rose-coloured-glasses-and-the-worlds-still-a-lot/?utm_medium=Referrer:+Social+Network+/+Media&utm_campaign=Shared+Web+Article+Links

Additional reading and references for particular sessions

I wrote a resource for the GA a while ago, and there is some useful information here linked to the idea of inequality:
https://www.geography.org.uk/Exploring-our-Global-Village-online-cpd

1. Introduction to Factfulness
https://informationisbeautiful.net/

2. Mind the Gap - are we moving away from the binary?

7. Dollar Street: Tutorial document (also on Google Drive)
https://drive.google.com/file/d/0B0HB08a-a9MbQWJURkxfQl94Snc/view

Photographers' guide for taking part in Dollar Street: may be useful for development of activity
https://drive.google.com/drive/folders/0By2siUCQWXnSallDVzdwel9Rd00

10.
Marine Plastics: GRIDA http://marinelitter.no/

Gaia Vince: Anthropocene book https://www.youtube.com/watch?time_continue=4&v=6pGrlepAp-c