

5-year plan • meeting #2

17 Sept 2025

Led by Sarel van Greunen & hosted by The Answer Series

THE CHAT:

Comment

I'm finding that the Students that we are receiving Grade 8s that are struggling with these skills... I do think is more than just Maths... all subjects need to help with these soft skills.



Comment

We do not cut out topics in grade 9, but what we do is the non-algebraic sections first, so that they can gather confidence. So Number systems, Stats, DP and IP and Finance are done first.

Comment

constructions in geometry should be rigorously taught in grade 8 not necessarily tested/assessed

Comment

How deep do you go into 3rd degree equations and functions, remainder and factor theorem? For later maybe.....

Comment

Topics should not be retaught each year - do the topic once in detail and give small revision exercises as they progress through the years.

Comment

Comment: "I'm finding that the Students that we are receiving Grade 8s that are struggling with these skills... I do think is more than just Maths... all subjects need to help with these soft skills."

Response to comment above: I completely agree. We should have more discussions with our colleagues teaching other subjects

Comment

Comment: "We do not cut out topics in grade 9, but what we do is the non-algebraic sections first, so that they can gather confidence. So Number systems, Stats, DP and IP and Finance are done first."

Response to comment above: A lovely idea Kathleen. Do you see an improvement in their confidence? What do you move on to after the non-algebraic topics?

Comment

We then move onto basic exponents, as algebra requires exponents for simplification of polynomials. So Exponents, then polynomials, then factorisation, then fractions and we revise

exponent fractions. Then equations.... The girls definitely get more comfortable by doing it in this order.

Comment

A thought about Probability ... at a Maths conference (UGC IEB KZN) quite a number of years ago there was an educational expert who spoke to us about Probability (so sorry I cannot remember his name). I just remembered that he was originally from Eastern Europe (I think!). He mentioned that research has found that the older a learner is before Probability is introduced, the less they struggle to understand it. The earlier its introduced, the more they struggle in later years. Maybe I remember it because it resonated with my own experience.

Comment

Comment: "constructions in geometry should be rigorously taught in grade 8 not necessarily tested/assessed"

Response to comment above: Are you referring to working with a ruler, compass and protractor? If you are not assessing these, do they take it seriously?

Comment

Comment: "How deep do you go into 3rd degree equations and functions, remainder and factor theorem? For later maybe...."

Response to comment above: I don't teach Remainder and Factor Theorem as a separate topic. I introduce these when working with cubic equations and sketching cubic graphs. Learners can use their calculators to determine the roots so the problems need to be of such a nature that applications of the Remainder and Factor Thm need to be applied



Comment

Yes I am - the constructions help the learners understand what they are doing in geometry they have seen things happen by constructing. Maybe just 1 or 2 periods so they know how to measure an angle. why parallel lines behave as they do etc

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Comment: "A thought about Probability ... at a Maths conference (UGC IEB KZN) quite a number of years ago there was an educational expert who spoke to us about Probability (so sorry I cannot remember his name). I just remembered that he was originally from Eastern Europe (I think!). He mentioned that research has found that the older a learner is before Probability is introduced, the less they struggle to understand it. The earlier its introduced, the more they struggle in later years. Maybe I remember it because it resonated with my own experience."

Response to comment above: In which grade do you introduce Probability?

Comment

Comment: "Yes I am - the constructions help the learners understand what they are doing in geometry they have seen things happen by constructing. Maybe just 1 or 2 periods so they know how to measure an angle. why parallel lines behave as they do etc"

Response to comment above: I agree. Measurement and constructions is so neglected at school level.

Comment

Comment: "We then move onto basic exponents, as algebra requires exponents for simplification of polynomials. So Exponents, then polynomials, then factorisation, then fractions and we revise exponent fractions. Then equations.... The girls definitely get more comfortable by doing it in this order."

Response to comment above: Thanks for sharing

Comment

You don't have the time to spend 6 weeks on fractions etc

Comment

Do you think construction can be taught in gr. 6 and 7 effectively? We also feel grade 8 already is so full.

Comment

Yes I think basic constructions can be done in grade 6 and 7. These learners would enjoy this work.

Comment

Comment: "In which grade do you introduce Probability?"

Response to comment above: When I can I only introduce it in Gr 11. Seems to work well.

Comment

Comment: "Do you think construction can be taught in gr. 6 and 7 effectively? We also feel grade 8 already is so full."

Response to comment above: There are certain topics which do need some revision as prior knowledge for teaching a new concept - building blocks

Comment

I agree 100% but we don't have to reteach every year

Comment

Comment: "There are certain topics which do need some revision as prior knowledge for teaching a new concept - building blocks"

Response to comment above: Definitely. The sooner they learn to work with a ruler the better. Grade 7s should be able to construct different types of triangles

Comment

Use Desmos and let the learners play on their phones to see what happens with translations. Maybe do translations in grade 10 and interpretations in grade 11

Comment

I like to introduce it in Grade 10 and complete the topic in Grade 11.

Comment

In terms of constructions in geometry - I have found some tasks on dot paper or grid paper can be effective in terms of leveraging up some of the understanding that constructions do. (<https://donsteward.blogspot.com> has some nice tasks for this) But clearly the basics of measuring with a ruler or a protractor also needs to be done at some point.

Comment

We've replaced the Gr 10 geometry syllabus with olympiad problems - and only do fun explorations. None of the horrible parallelogram etc. things.

Comment

Comment: "We've replaced the Gr 10 geometry syllabus with olympiad problems - and only do fun explorations. None of the horrible parallelogram etc. things."

Response to comment above: Love that. I start Circle Geometry in Grade 10 - numerical only

Comment

Comment: "In terms of constructions in geometry - I have sound some tasks on dot paper or grid paper can be effective in terms of leveraging up some of the understanding that constructions do. (<https://donsteward.blogspot.com> has some nice tasks for this) But clearly the basics of measuring with a ruler or a protractor also needs to be done at some point."

Response to comment above: How about doing these activities with Grade 7s

Comment

I think a lot of that kind of playing with geom should be done in primary. Both constructions and some of the don steward type tasks. Unfortunately I think geom is often neglected in primary (where often time is just spent identifying shapes and not exploring things like angles etc and seeing how changing this affects that etc etc)

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Response to comment above: Agree!

Geogebra works very nice for me with the transformation of functions in grade 10.

Comment

I'd love to get some help with Geogebra or Desmos. Is there a link or someone willing to help me out please? Thank you.

Comment

Don't have a working mic, doing certain topics like statistics and probability after school or over a weekend has worked well, that is if the kids attend.

Comment

show and tell

Comment

The Answer Series Geogebra and Desmos webinar recordings are available here:

<https://www.theanswer.co.za/fet-maths-community/>

**Comment**

Unfortunately doing work ahead of time isn't always possible because the learners mathematical ability is really weak. I have found teaching the learners where to find extra resources, especially YouTube videos to help them through topics they battle with help a lot.

Much appreciation in closing comments 🙏🙏

