

Methodology for practical subjects

Metodologie vir praktiese vakke

Dr Adri Du Toit & Mnr Arno Combrinck

Noord-Wes Universiteit, Suid-Afrika

SAOU Simposium November 2021

BECOME **GREATER**
TODAY **THAN** YOU WERE YESTERDAY!

#MyNWU | #GreaterThan

Presentation sections

1. Planning learning content
 - Long term to short term
 - Documentation
2. Lesson planning
 - Phases in lesson
 - Content & requirements per phase
 - Teaching approaches
3. Assessment
 - Purpose of assessment
 - Types of assessment
 - Rubrics

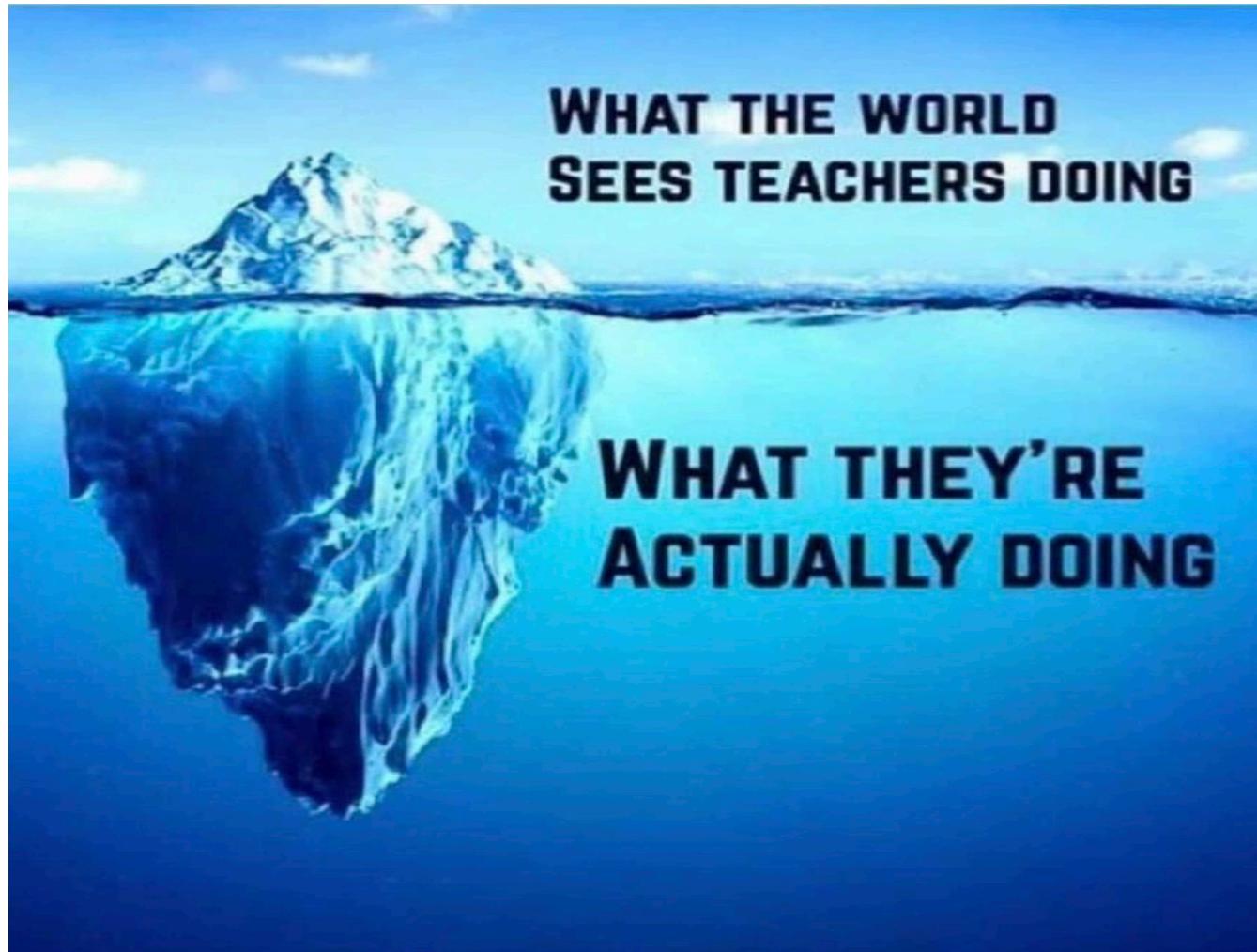
Aanbiedingstruktuur

1. Beplanning van leerinhoud
 - Langtermyn tot korttermyn
 - Dokumentasie
2. Lesbeplanning
 - Lesfases
 - Inhoud & vereistes per fase
 - Onderrigbenaderings
3. Assessering
 - Doel van assessering
 - Tipes assessering
 - Rubrieke

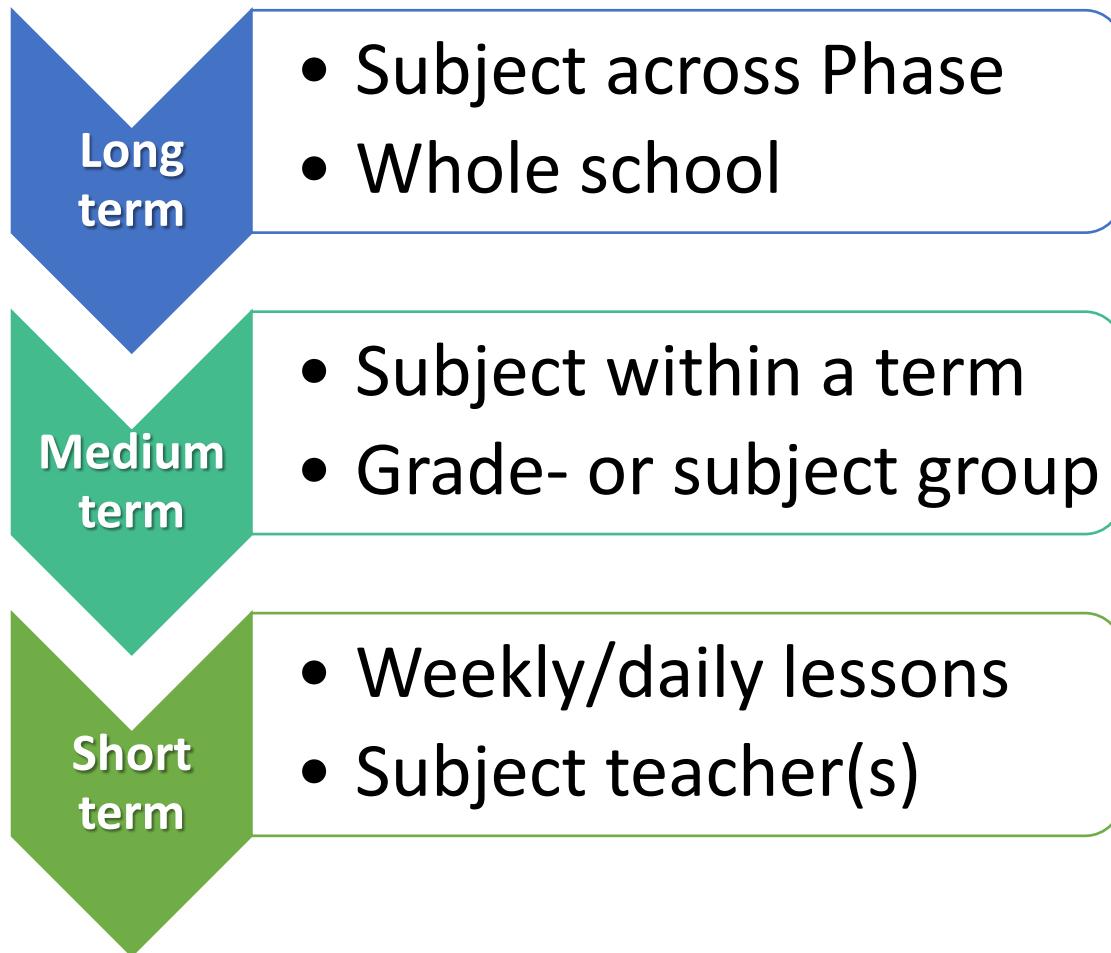


The iceberg of education

Die ysberg van onderrig



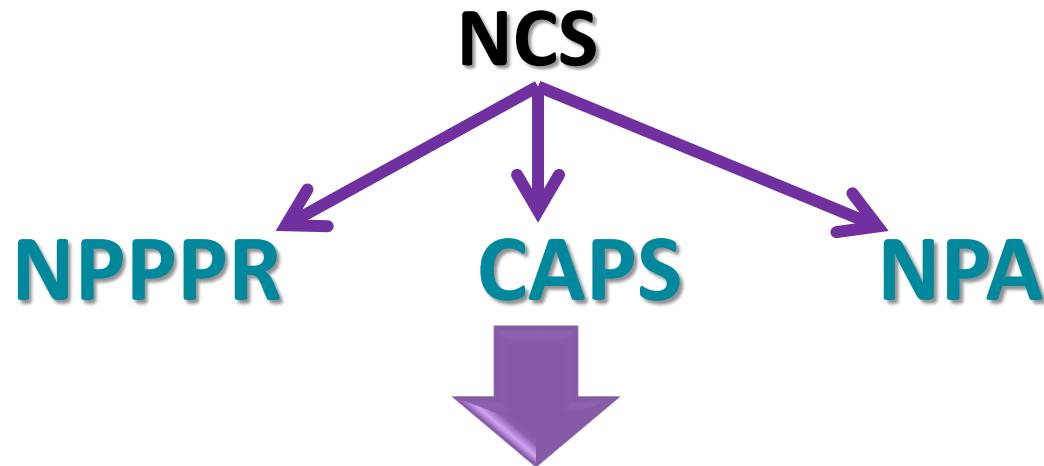
1. Planning learning content



1. Beplanning van leerinhoud



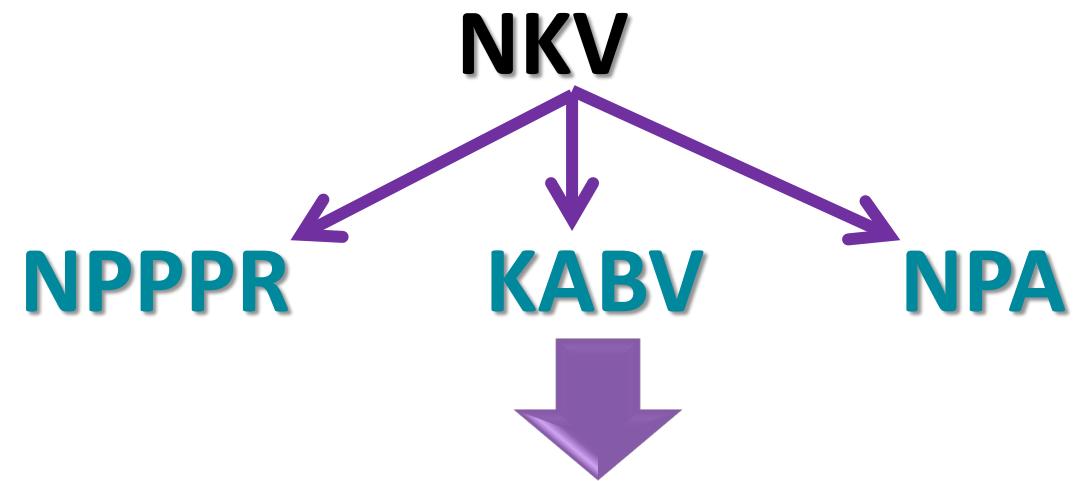
1. Planning documents



Sections:

1. General background
2. Subject details
3. Subject content
4. Assessment

1. Beplanningsdokumente



Afdelings:

1. Algemene agtergrond
2. Vakspesifieke detail
3. Vakspesifieke inhoud
4. Assessering



SECTION 3:

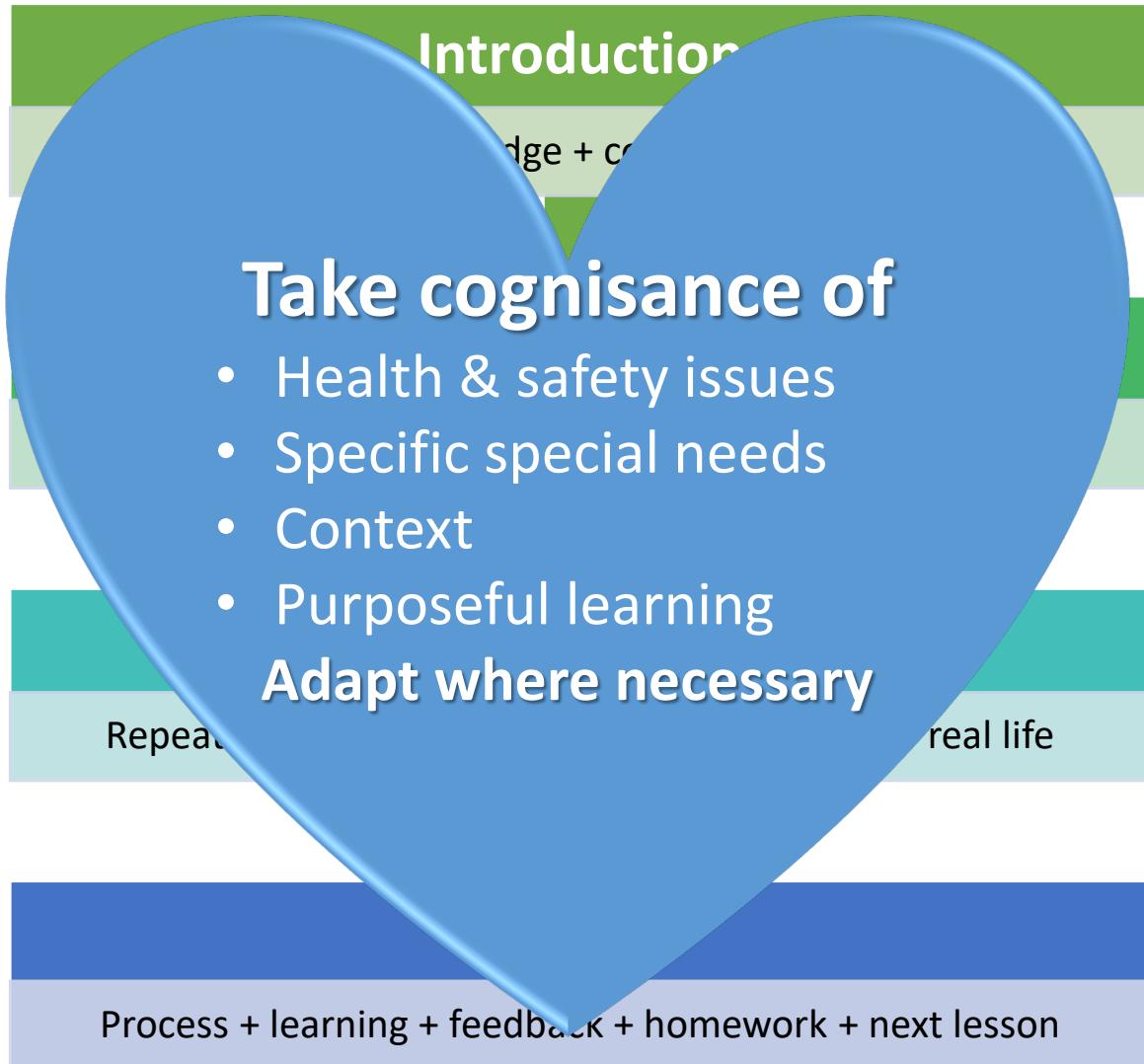
OVERVIEW OF TOPICS PER TERM AND ANNUAL TEACHING PLANS

3.1 Content overview

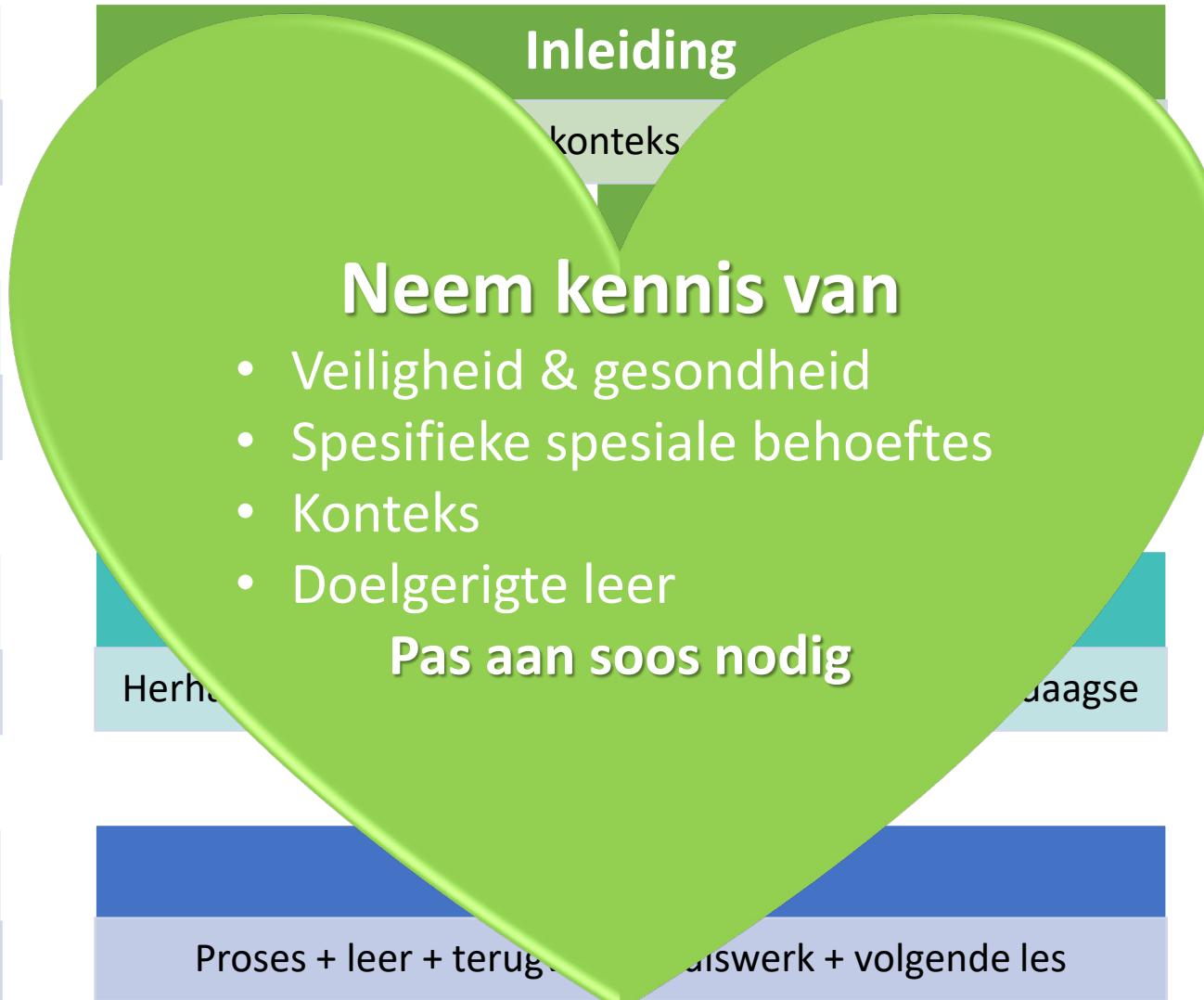
TOPIC	Year 1	Year 2	Year 3	Year 4
1. Health and Safety	General workshop rule and procedures Housekeeping Evacuation plan Importance of wearing protective gear Safety signs and installation rules HIV and Aids and awareness of substance abuse	Importance of wearing protective gear Know safety Precautions when using general tools and equipment Safety signs and installation rules HIV and Aids and Awareness of Substance abuse	Know safety Precautions when using tools and equipment Know safety precautions when using general tools and equipment Apply basic principles of Health and Safety on the Electrical installation	Know safety precautions when using tools and equipment Apply basic principles of Health and Safety on the Electrical installation
2. First Aid	Apply basic first Aid principles	Apply basic first Aid principles	Apply basic first Aid principles	Apply basic first Aid basic principles

WEEK	TOPIC	CONTENT The learner is able to:	Techniques, activities, resources and process notes
1	Health and Safety Date: _____	<p>Revision</p> <p>Be aware of the dangers of HIV and Aids and how it is transmitted</p> <p>Be aware of different types of substance abuse and the effects of substance abused in the workplace</p> <p>Name and identify the following protective clothing(PPE):</p> <ul style="list-style-type: none"> • Overalls • Safety glasses • Working gloves • Safety boots • Safety Helmet <p>Know the importance of wearing protective gear</p> <p>Be aware of the safety precautions when using general tools and equipment</p> <p>Demonstrate the following:</p> <ul style="list-style-type: none"> • Unsafe acts 	<p>Theoretical explanation as well as practical demonstrations</p> <p>Activities:</p> <p>Examples:</p> <p>Wear ,identify and name different types of protective clothing.(oral test)</p> <p>State the use of protective clothing. (Oral test)</p> <p>Design their own safety sign</p> <p>List examples of unsafe acts and conditions</p> <p>Resources:</p> <p>Examples:</p> <p>PPE, DVD's about safety, charts</p>

2. Lesson planning



2. Lesbeplanning



2. Lesson teaching approaches

- Engaging pedagogies
- Learner-centred learning
- Active learning
- Facilitation
 - Demonstrations
 - Experiments
 - Video-clips/cases/case studies
 - Excursions outside the classroom
 - Games
 - Dramatization & role play

2. Onderrigbenaderings vir lesse

- Innemende pedagogie
- Leerder-gesentreerde leer
- Aktiewe leer
- Fasilitering
 - Demonstrasies
 - Eksperimente
 - Videosegmente/gavalle/gevallestudies
 - Uitstappies buite klaskamer
 - Speletjies
 - Dramatisering & rolspel



3. Assessment

Purpose

- Measure / Judge /Evaluate
 - Knowledge development
 - Skills development
- Meaningful
 - Gaps
 - Misconceptions
 - Constructive feedback
 - Report to various role players

3. Assessering

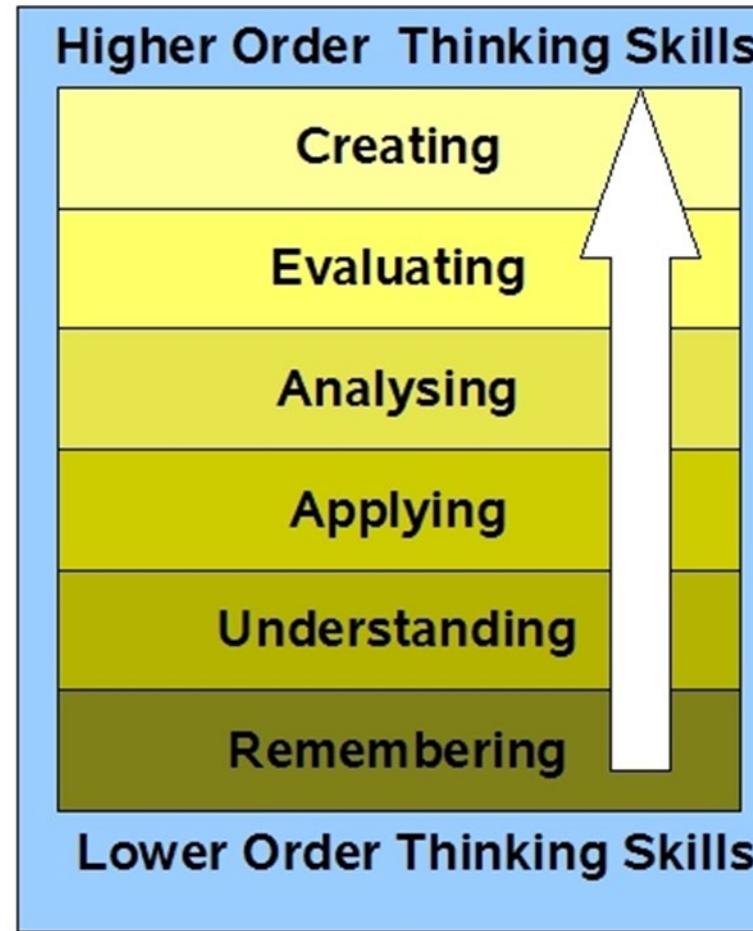
Doel

- Meet / Beoordeel / Evaluate
 - Kennisontwikkeling
 - Vaardighedsontwikkeling
- Betekenisvol
 - Gapings
 - Wankonsepsies
 - Konstruktiewe terugvoer
 - Verslaggewing aan verskeie rolspelers



3. Assessment Types

- Bloom's Taxonomy: cognitive levels
- Informal vs Formal
- Formative
- Self assessment
- Peer assessment
- Assessment *for* learning
- Assessment *of* learning



3. Assessering Tips

- Bloom se Taksonomie: kognitiewe vlakke
- Informeel vs Formeel
 - Formatief
- Selfassessering
- Maatassessering
- Assessering *vir* leer
- Assessering *van* leer



3. Assessment

Rubrics

- Analytical
- Holistic

	Nie goed (0-2)	Redelik goed (3-5)	Goed (6-7)	Uitstekend (8-10)	Punt (10)
Voorkoms	Onnet prente en byskrifte	Effens onnet prente en byskrifte	Netjiese prente en byskrifte	Uiters netjiese prente en byskrifte	
Ontwerp en uitleg	Baie swak gebruik van ruimte	Gebruik van ruimte kan beter beplan word	Goeie gebruik van ruimte	Uitstekende gebruik van ruimte	
Inligting	Onvolledig of foutief	Redelik volledig en korrek	Volledig en korrek	Baie volledig en korrek	
Totaal					(30)

3. Assessering

Rubrieke

- Analities
- Holisties

Punt	Beskrywing
4	Plakkaat is uiters suksesvol met besonderse netjiese afronding, goeie gebruik van ruimte en uiters volledige en korrekte inligting
3	Plakkaat is suksesvol met goeie netjiese afronding, goeie gebruik van ruimte en redelike volledige en korrekte inligting
2	Plakkaat is nie baie netjies afgerond nie, die gebruik van ruimte is swak beplan en inligting is nie heeltemal korrek of volledig nie
1	Plakkaat is onnet met swak gebruik van ruimte, onvoldoende of foutiewe inligting.



Closure: Questions or Comments

We offer our willingness to assist with any questions and comments regarding our presentation via the SAEU office.

Please make use of our e-mail details if you have any other direct contact needs

- Any information concerning study programs for teachers can contact Mr Combrinck or Beula.debeer@nwu.ac.za

Afsluiting : Vrae en opmerkings

Ons wil ons bereidwilligheid uitspreek om enige vrae en opmerkings i.v.m. ons aanbieding te maak via die SAOU.

Maak asb gebruik van ons e-pos besonderhede vir enige ander direkte kontak benodighede

- Enige navrae i.v.m. Studieprogramme vir onderwysers kan vir Mn Combrinck of vir beula.debeer@nwu.ac.za kontak



'MYTHBUSTER' ON SCHOOL TESTING

"If you want the kids' test scores up, bring back band and bring back shop and get kids actually learning stuff instead of teaching them how to take a test."



Adam Savage

STEM, the acronym for science, technology, engineering and math, should be STEAM "because you need art in there to complete an education." He is excited about the growth of robotics competitions, the makers movement of do-it-yourselfers and a bigger variety of people from diverse backgrounds "getting interested in science by getting your hands dirty." — Sharon Kennedy Wynne, tbt*

TV personality Adam Savage, one of the stars of *Mythbusters* on the Discovery Channel, in an interview. Savage, who works with partner Jamie Hyneman, was promoting their live show coming April 23 to Tampa's Straz Center, and his comment exploded on Twitter. Savage said

MythBusters: Jamie and Adam Unleashed

The duo from the Discovery Channel's Emmy-nominated series takes the stage at 7:30 p.m. on April 23.

Coming Friday:
More about the *Mythbusters* show.

THANK YOU DANKIE KE A LEBOGA

arno.combrinck@nwu.ac.za

dutoit.adri@nwu.ac.za

The NWU's **Greater Than** awareness campaign focuses on the idea that greatness is meant for all of us – not just reserved for a chosen few. Every moment of every day, you have the potential to be greater. We want to encourage you to use every opportunity the NWU provides to exceed your expectations and create endless possibilities

