Prifysgol Cymru
Y Drindod Dewi Sant
University of Wales
Trinity Saint David

Yr Athrofa
Institute of Education
Addysg i Gymru Education for Wales

Mmm … beth oedd y cwestiwn 'na eto?

AMCANION

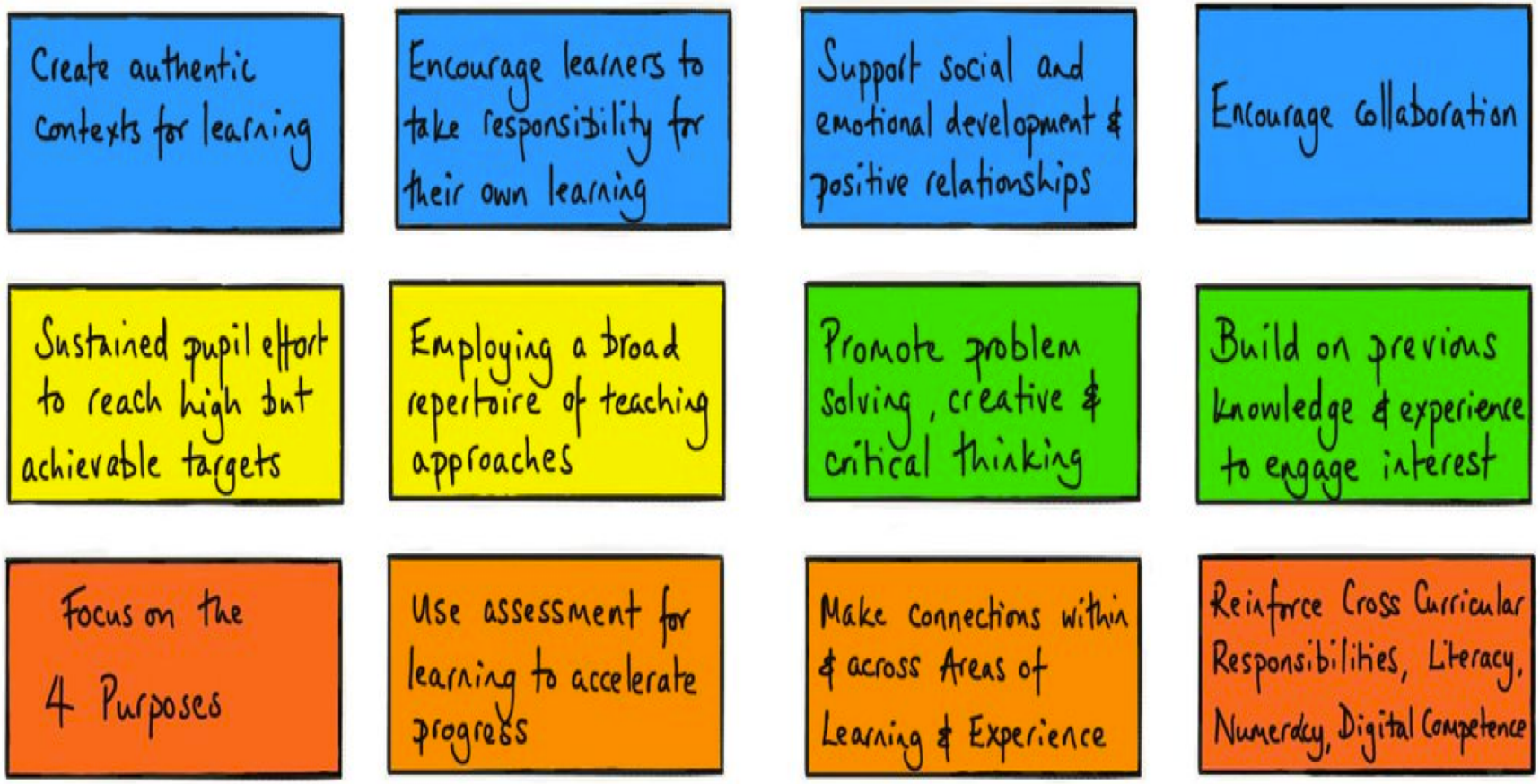
- ❑ Dyfnhau dealltwriaeth o bwysigrwydd holi
- ❑ Codi ymwybyddiaeth penodol o'r 'gwaith manwl' wrth ddefnyddio technegau holi
- ❑ Ehangu amrywiaeth o wahanol dechnegau cwestiynu llwyddiannus
- ❑ Gwerthuso effaith strategaethau cwestiynu penodol



Pam? Er mwyn cryfhau ymgysylltiad

12 egwyddor addysgeg Donaldson

(Donaldson, 2015, tt.64-70)

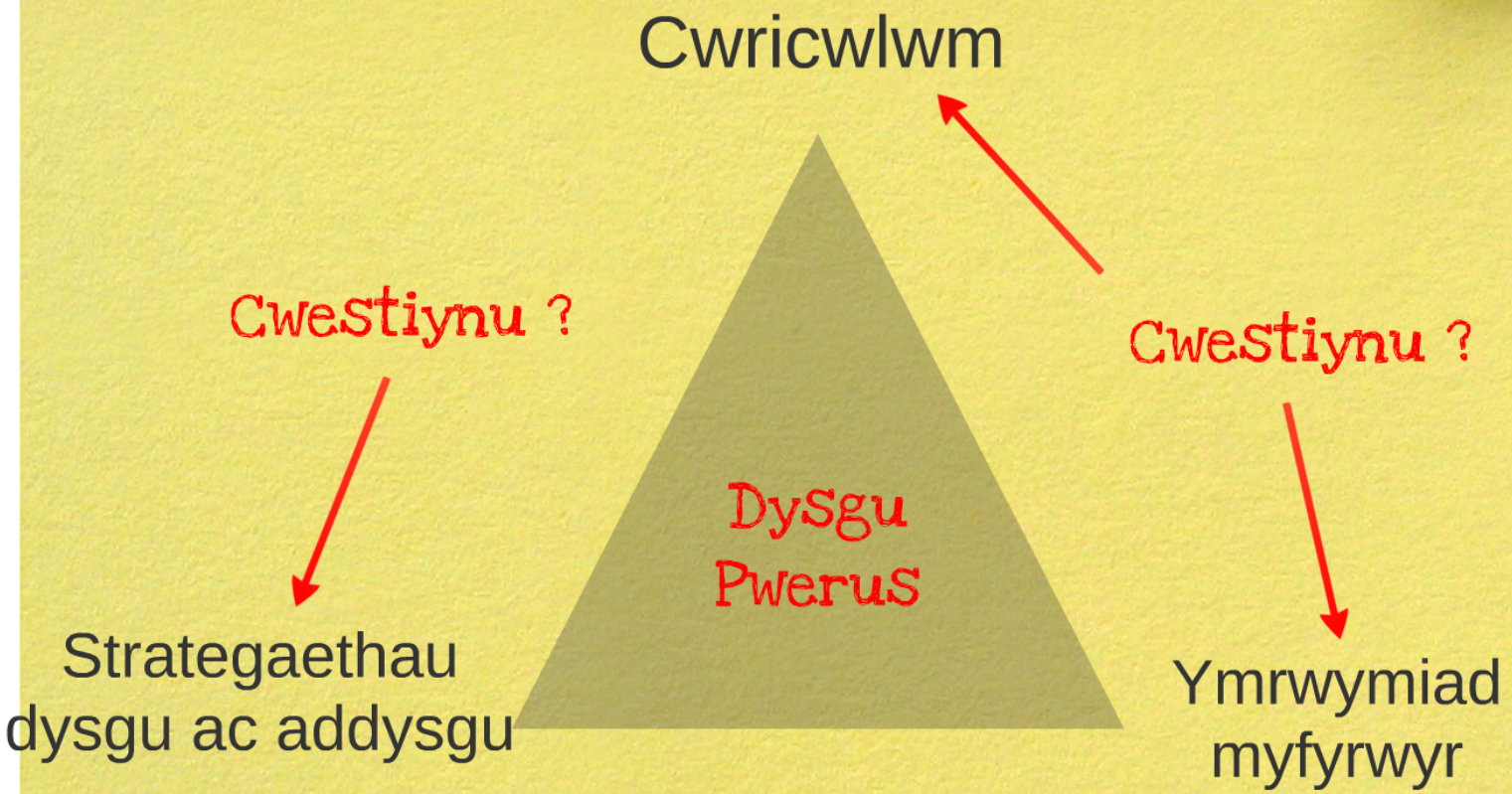


Rhowch 5 i mi!

- 5 datganiad
- Trefnwch y datganiadau o 1 i 5



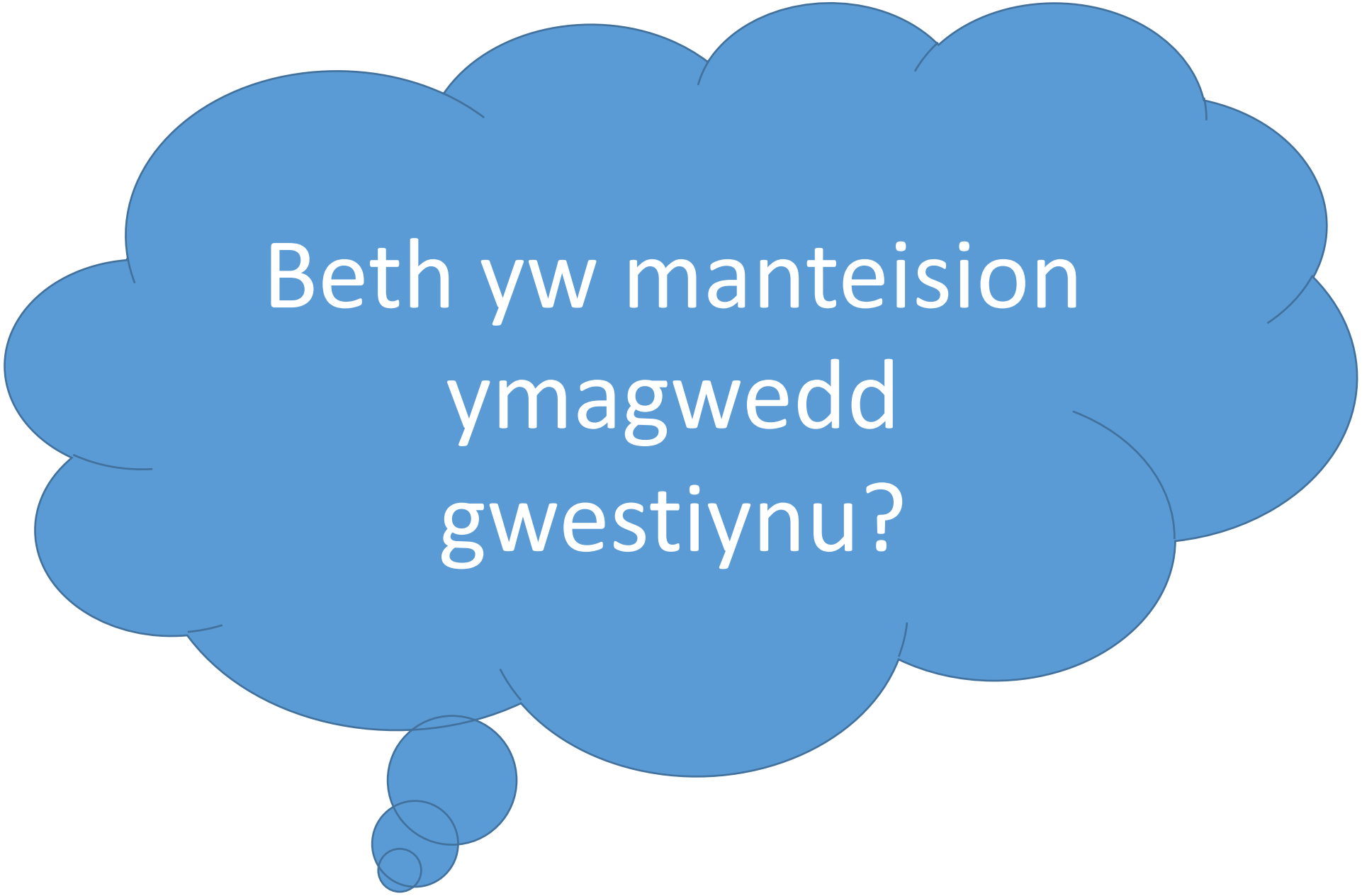
The Instructional Core
Y Craidd Hyfforddi



Friday, 30 October 2009

Confronting the Elephant in the Classroom strategies for addressing the instructional core

David Hopkins


Beth yw manteision ymagwedd gwestiynu?

Beth yw manteision yr agwedd gwestiynu?



Canolbwyntio ar ddeall nid yn unig cofio

Cymryd rhan yn ymarferol

Ysgogi chwilfrydedd

Gwersi'n symud ymlaen ar gyflymder y dysgwyr

Dysgwr yn arddangos llwyddiant

Mwy diddorol

Dysgwyr yn gorfod meddwl drostynt eu hunain

Roedd gan ddysgwyr rhagdybiaethau a heriwyd camsyniadau – hyn yn allweddol.

Mae rhesymwaith y pwnc yn agored ac maent yn cael eu hannog i'w ddefnyddio.

Yr athro a'r dysgwr yn derbyn adborth unionsyth

Gwella Ysgolion - Effeithiolrwydd

Lleihau maint dosbarthiadau 30%

Cynyddu cynnwys gwybodaeth athro o wan i gryf

Asesu / asesu ffurfiannol ar gyfer dysgu

Misoedd ychwanegol o ddysgu bob blwyddyn

4 (mewn 12 mis dosbarthiadau bach yn cyflawni'r hyn a wnaeth y dosbarthiadau mwy o faint mewn 16)

2

8

Dylan Wiliam (2009) Assessment for learning: why, what and how? London: Institute of Education

Cwestiynu pendant



Grwpiau ‘Buzz ‘



Athrawes yn monitro



“Ti’n iawn?”

“Angen awgrym?”

“Wyt ti angen mwy o amser?”

“Ateb gan bawb?”

DIM UN ATEB!

Yr athrawes yn enwebu un aelod o bob grŵp i roi ateb ar ran y grŵp.

Diolch. Cyfiawnhau – Pam ydych chi’n Meddwl fel hyn?

Pwy sy’n cytuno/rhywbeth gwahanol?

Nid yw’r athrawes yn gwerthuso!

Athrawes – amlygu’r anghysonderau

Consensws – ‘ateb dosbarth’

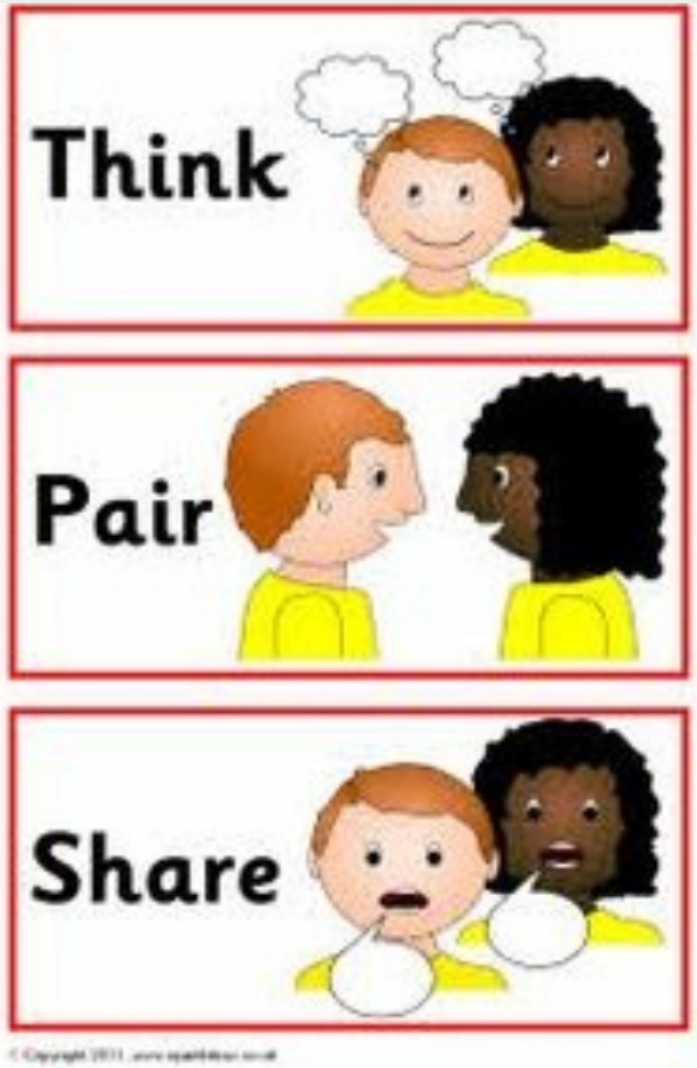
Yr athrawes ‘yn rhoi’r’ ateb cywir neu’n gwerthsuo/gwneud sylwadau.

Meddwl, Paru, Rhannu

Pose an opened ended question or problem to which there may be a variety of answers.
THINK: Allow 'thinking time' and direct them to think about the question.
PAIR: Students then work in pairs to share ideas, discuss, clarify and challenge.
SHARE: Share ideas with another pair or with whole class

It is important that students need to be able to share their own partner's ideas as well as their own.

Peer interaction and thinking time are powerful factors in improving responses to questions.



Pêl-fasged nid ping-pong



Taflwch y cwestiynau o amgylch yr ystafell ddosbarth er mwyn adeiladu ar ddealltwriaeth ac annog y dysgwyr i ddatblygu rhesymu cryfach wrth ddelio gyda chamsyniadau

e.e. “Ifan, beth yw dy farn di am ateb Caryl?”

“ Caryl, sut allet ti ddatblygu ateb Siôn fel bod mwy o fanylder?”

“ Siôn, sut allet ti grynhoi’r atebion hyn i gyd mewn un ymateb?”

Techneg Athroniaeth ar gyfer Plant (P4C)

NODIADAU CYFRINACHOL



Unigol



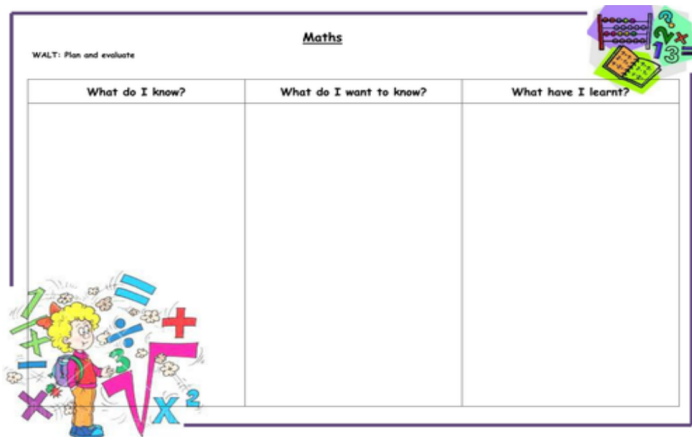


x 3





Gridiau GED/GESD



- Strategaeth i alluogi dysgwyr ac athrawon i ysgogi ac archwilio dysgu blaenorol.
- Dysgwyr yn creu cwestiynau eu hunain a rhai maent yn awyddus i gael atebion iddynt.

Enghraifft:

Beth ydw i'n **G**wybod?	Beth ydw i **E**isiau gwybod?	Beth ydw i wedi **D**ysgu?

Beth ydw i'n **G**wybod?	Beth ydw i **E**isiau gwybod?	**S**ut ydw i'n mynd i gael gwybod? **S**ut oeddwn i wedi ei ddysgu?	Beth ydw i wedi **D**ysgu?

https://www.youtube.com/watch?v=fGehZsYtniY

1. Pose



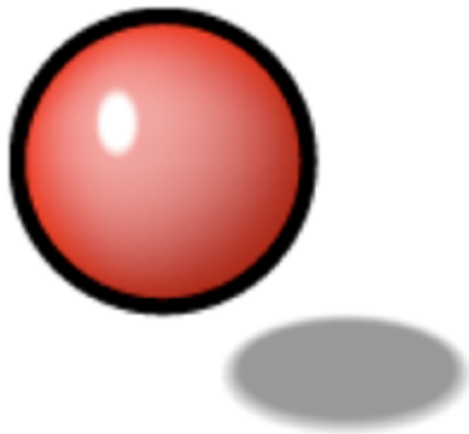
2. Pause



3. Pounce



4. Bounce



Mae gwybodaeth a geir trwy gwestiynu yn fwy tebygol o fod yn ...?



... drosglwyddiadol

Meddyliwch!

Faint o dechnegau cwestiynu allwch chi feddwl am?

Beth yw'r rhain?



Amrywio'r math o gwestiynau

PRYD?

SUT?

PWY?



BLE?

BETH?

PAM?

Mathau o gwestiynu

Trevor Kerry (1982)

Math o gwestiwn	Enghraifft
Galw data i gof	Ble mae prifddinas Ffrainc?
Enwi	Beth yw enw'r asgwrn yn eich clun?
Arsylwi	Pa liw yw papur litmus?
Rheoli	Wneud di eistedd lawr Ifan?
Cwestiwn-Pseudo	(cwestiwn agored ond disgwylir un ateb) Beth allwch chi weld fan hyn?
Math o gwestiynau sgiliau uwch	
Hypothesis dyfaliadol (speculative)	Beth fyddai'n digwydd petai'r coed i gyd yn cael eu torri lawr?
Rhoi rhesymau	Pam mae pobl yn y trydydd byd yn penderfynu cael cymaint o blant?
Gwerthuso	Pa dystiolaeth sydd ar gael o blaid ac yn erbyn bywyd ar ôl marwolaeth?
Datrys problemau	Sut y gallwn ni ddrilio metel heb iddo ordwymo?

Y trap siarad

Mae'r rhan fwyaf o bobl yn siarad tua 100 to 200 gair bob munud



Mi allai darlith 2 awr gynnwys hyd at 24,000 o eiriau.

Effaith ar gof tymor hir/byr?

Rhychwant canolbwyntio = 5 munud (Israddedigion 15-20munud).

"A lecture is an event where information passes from the notes of the lecturer into the notes of the student, without passing through the brains of either. "(Petty, 2009)

TC

The talk trap

Most people talk up to 100 to 200 words per minute.



A 2 hour lecture could contain up to 24,000 words.

Effect on short/ long term memory?

5 min concentration span (Undergraduate 15-20mins).

A lecture is an event where information passes from the notes of the lecturer into the notes of the student, without passing through the brains of either. (Petty, 2009)

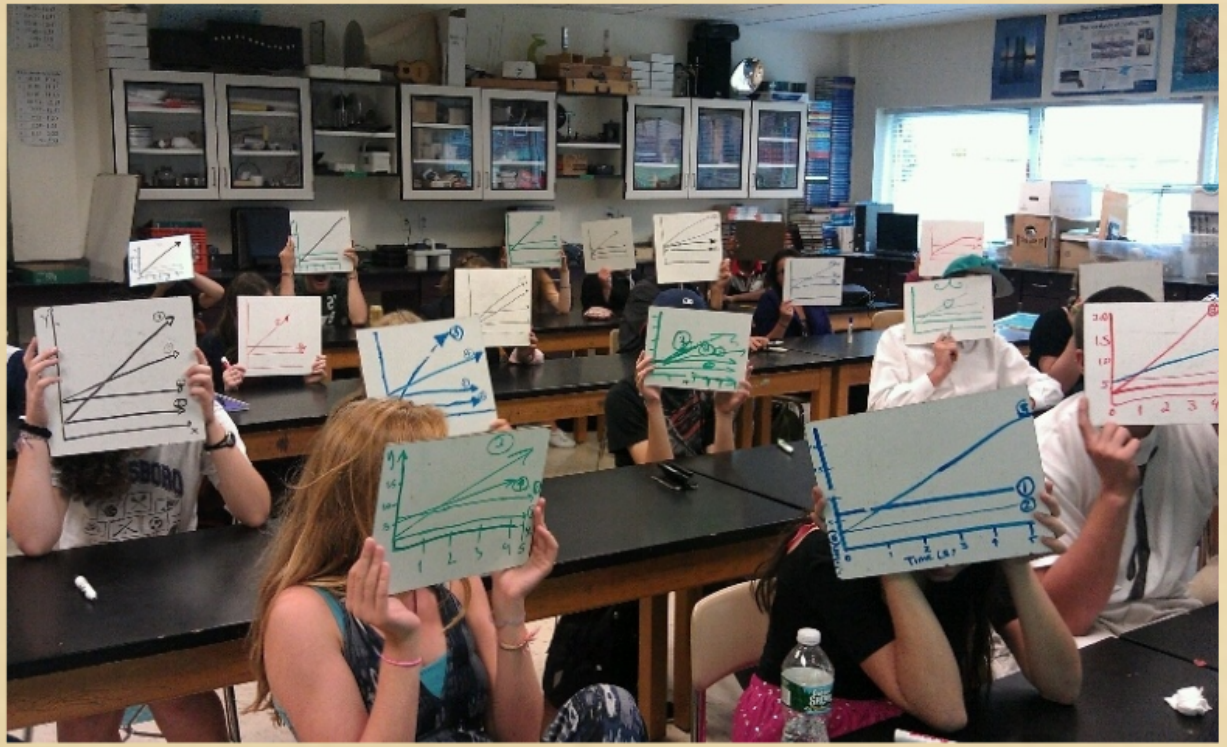
PELEN EIRA





'Secret Squirrel'






Poker Face

‘Might’ ‘Efallai’.

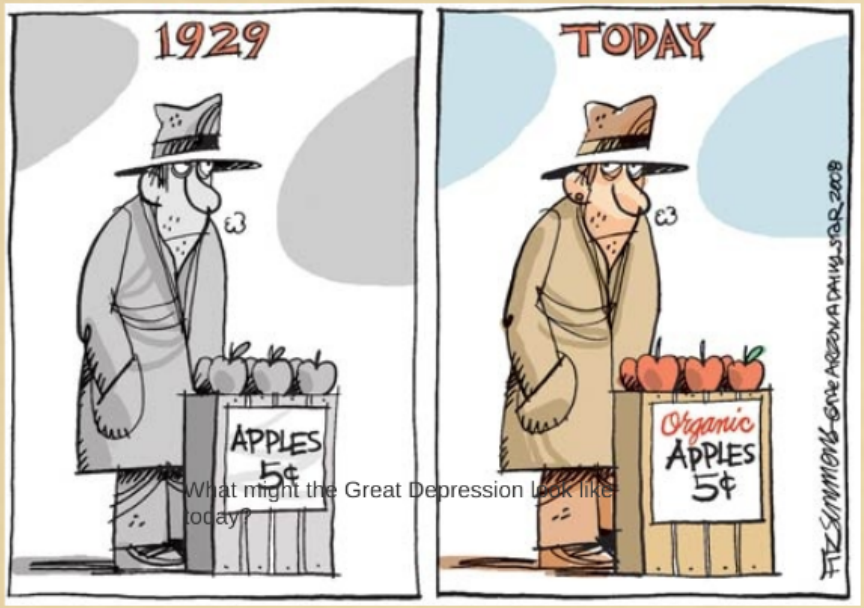
When questioning, insert the word ‘might’ to give students greater opportunity to think and explore possible answers.

e.g.

What is meaning of democracy?

What might the meaning of democracy be?

The first infers a single answer known by the teacher whereas the second is inherently more open.



What might the Great Depression look like today?

Amser-Aros

(0.9 secs)



Wait time allows students time to think and therefore to produce answers. Also, not everyone in the class thinks at the same speed or in the same way – waiting allows students to build their thoughts and explore what has been asked.

2 types of wait time –

Teacher speaks and then waits before taking student responses.

Student response ends and then teacher waits before responding. This gives the student space to elaborate or continue – or for another student to respond.



Don't weaken the question



X = Y

Gofyn i ddisgyblion pam fod X yn enghraifft o Y?

e.e. “Pam mae afal yn enghraifft o ffrwyth?”

“Pam mae cadno yn enghraifft o famal?”

Mae cwestiynu fel hyn yn osgoi dwyn ffeithiau yn unig i gof. Mae’n amlygu’r rhesymeg yn fwy eglur.



X and Y

NR

Ask students why X is an example of Y

e.g.

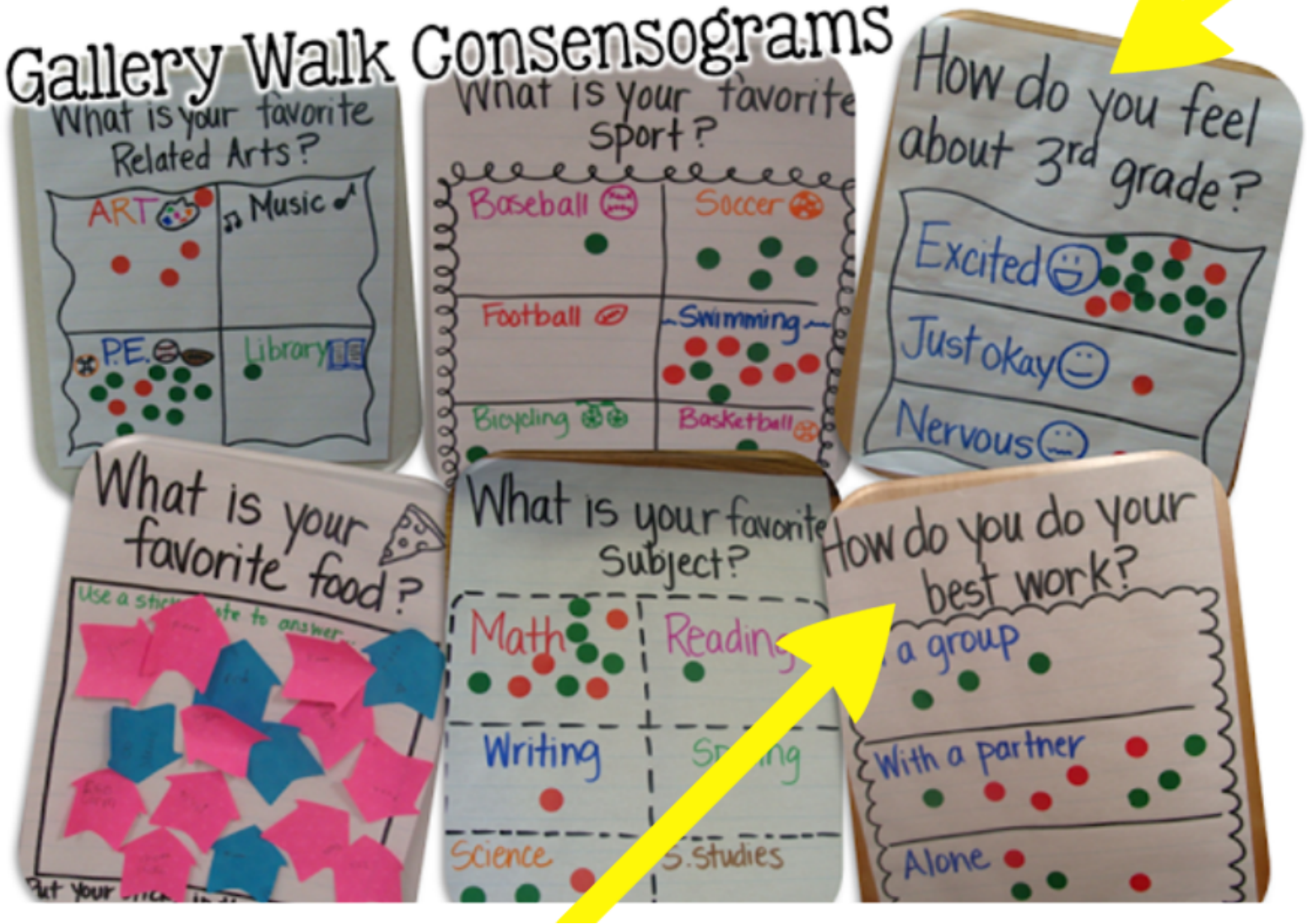
Why is an apple an example of a fruit?

Why is a fox an example of a mammal?

Questioning in this way avoids factual recall and asks for the underlying reasoning to be made explicit.



ConsenSograms



Llinell Bendantrwydd

(certainty line)







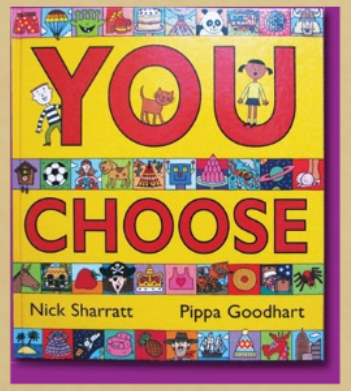
Parau pilipala



Partneiriaid perffaith



Cyswllt llygaid
Iaith y corff
Cymryd rhan
Gwrando
amser





Enghreifftiau o Gwestiynau

- A ydy pysgod yn llefain?
- Os fyddai blodau yn gallu siarad, beth fydden nhw'n ei ddweud?
- Pam bod glaw yn wlyb?

Rhifo unigolion gyda'i gilydd



Divide students into groups of 4, students each given a number 1-4
Teacher poses a question or problem.
Each individual in the group has to contribute an idea, answer or solution.
The group then have to agree on which idea will be their group answer.
Teacher calls out a number randomly 1-4.
Students with that number raise their hands, and when called on, the student answers for his or her team.



Meddyliwch am un sefyllfa addysgu… dysgwch e mewn 1 munud yn defnyddio cwestiynau yn unig!

Common mistakes made by inexperienced teachers.



Vocabulary too complex.

Not enough ‘wait time’.

Not enough reinforcement (praise).

Often unable to prompt a student into producing a useful response.

Trevor Kerry (1982)



Camgymeriadau cyffredin a wneir gan athrawon dibrofiad.



Geirfa rhy gymhleth.

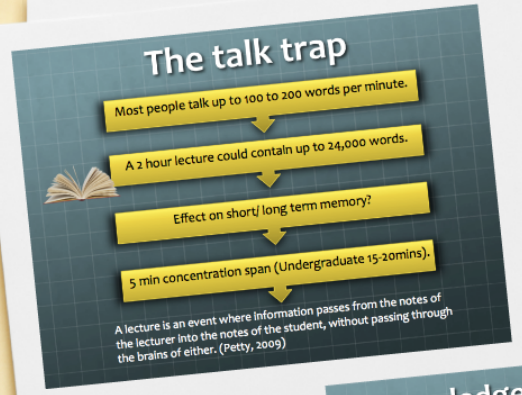
Dim digon o 'amser aros'.

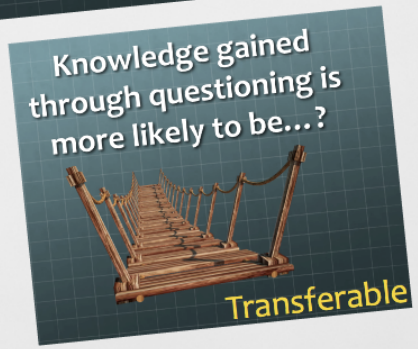
Dim digon o atgyfnerthu (canmoliaeth).

Aml ddim yn gallu ysgogi myfyriwr i mewn i gynhyrchu ymateb defnyddiol.

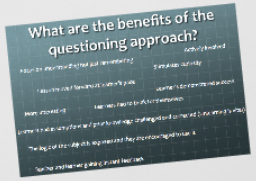
Trevor Kerry (1982)







Meddyliwch am un pwynt dysgu unigol ... dysgwch mewn 1 munud yn defnyddio cwestiynau yn unig!



Strategaethau Addysgu Gweithredol



Models

Creating communities

Films



Role play







War - Anne of Cleves

Great balloon debate







Human timelines -
(Roman 4 Saxon 7 viking 4)

Artifact timeline

Visits







Hot seating

TC







Translator

Freeze frames

Discussion carousel

Physical character lines

Decision alley

A piece of your mind

Human spider webs

Delegation / marketplace

Living graphs





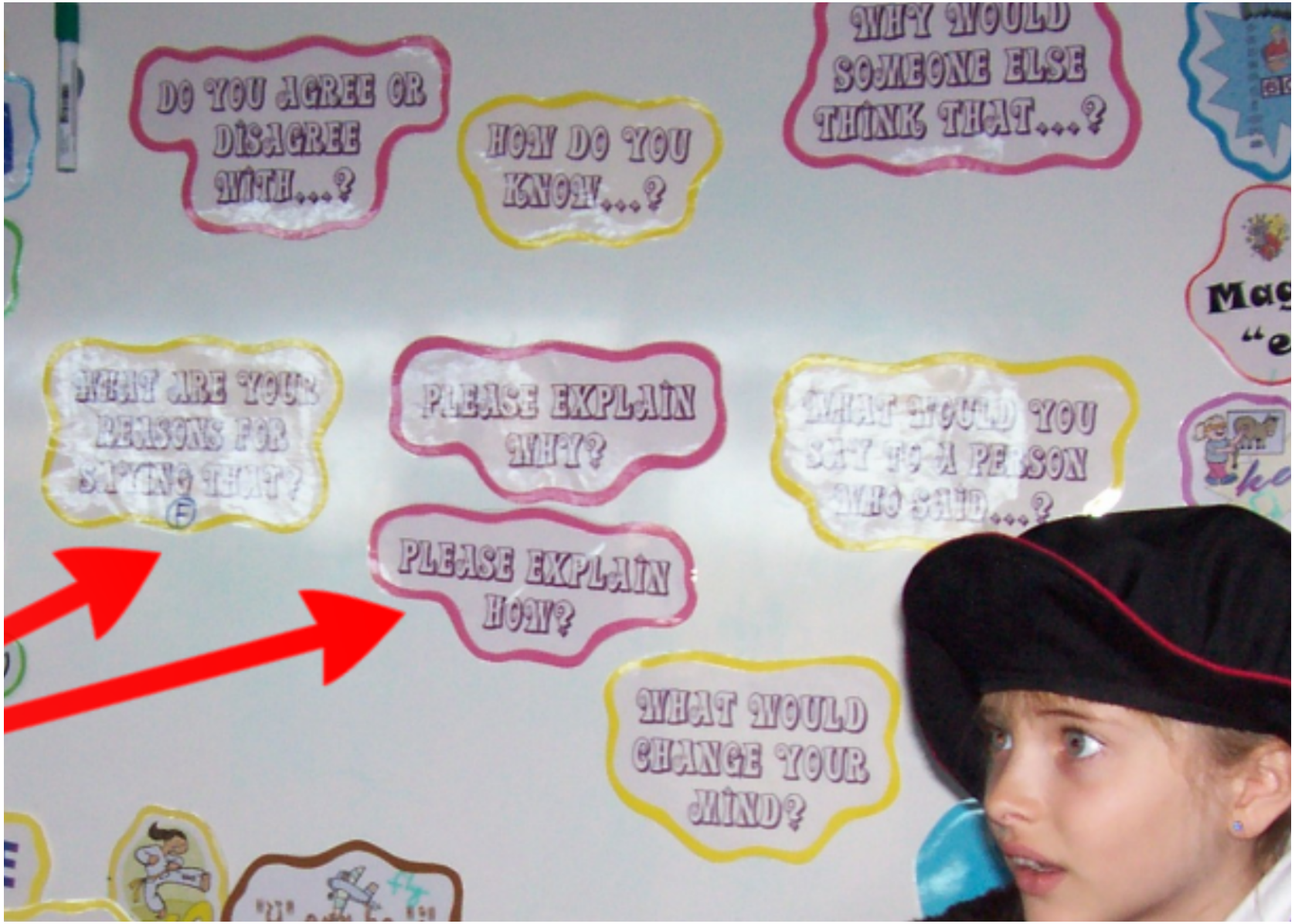
TC







Strwythurau cwestiynau socrataidd yn gallu helpu



A ydych yn cytuno gyda…?

Sut ydych yn gwybod?

Pam y byddai rhywun arall yn meddwl fel yna?

Beth yw eich rhesymau am ddweud hyn?

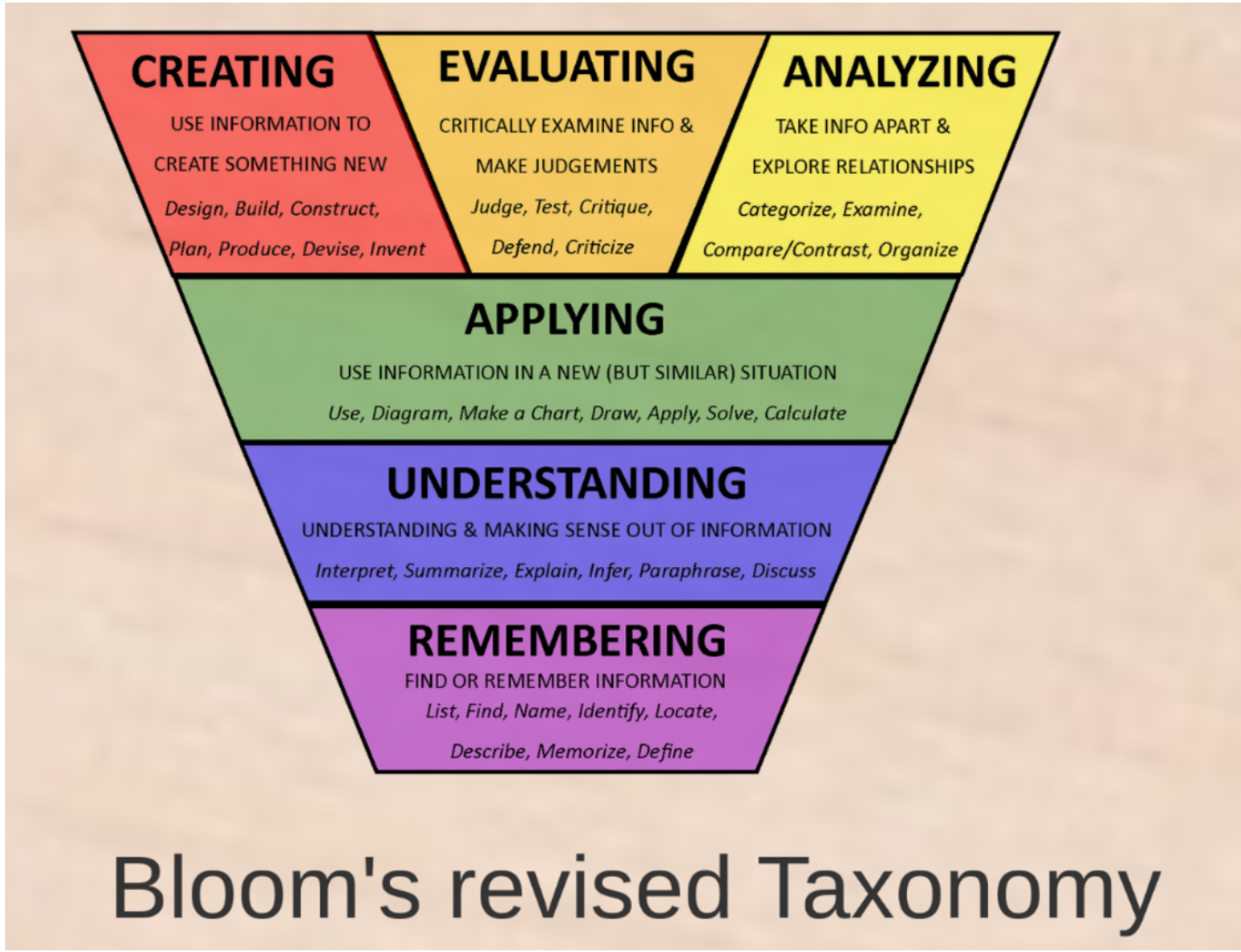
Esboniwch fwy os gwelwch yn dda?

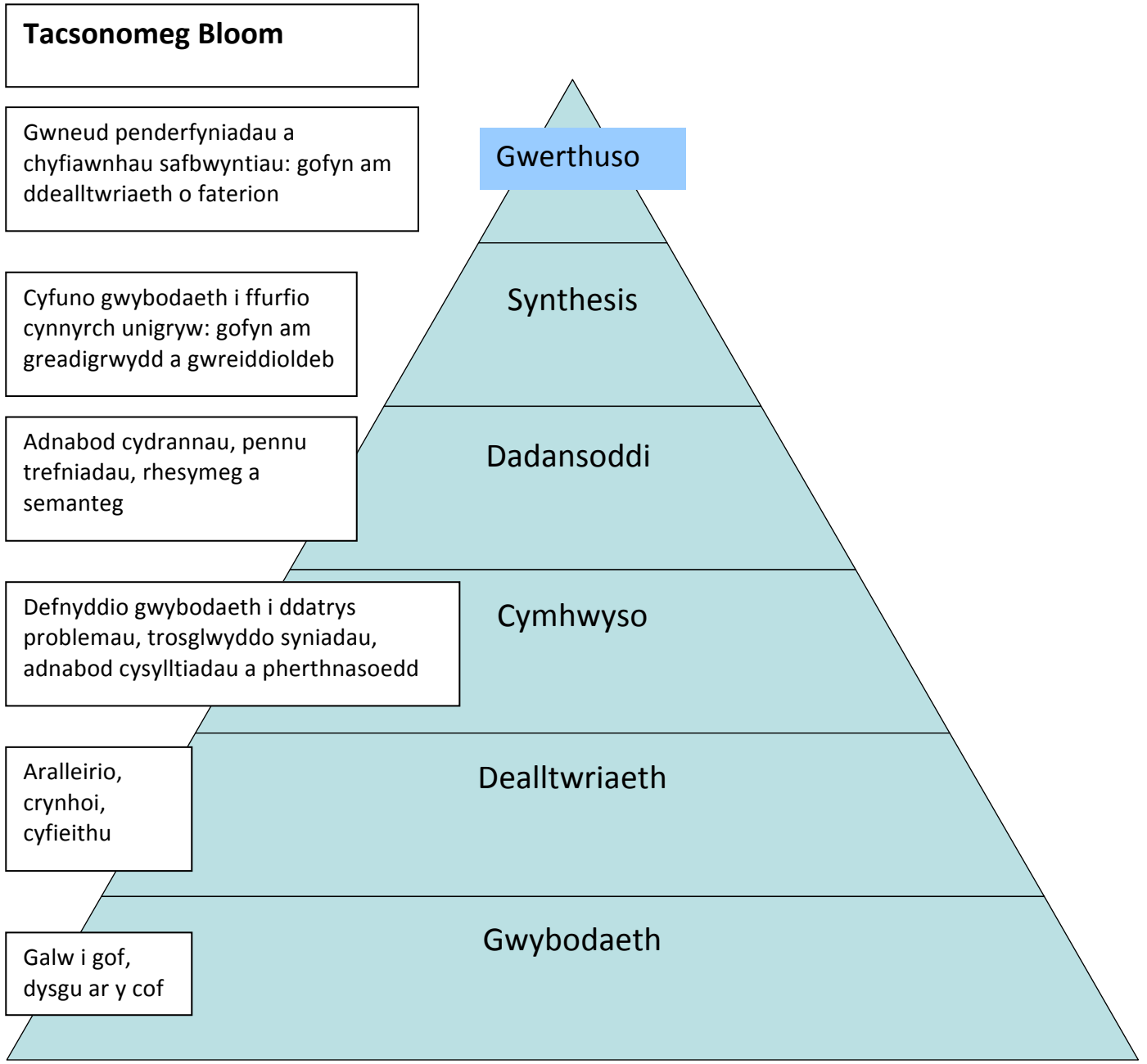
Esbonwich sut os gwelwch yn dda?

Beth fyddech yn ei ddweud wrth berson fyddai yn dweud…?

Beth fyddai yn newid eich meddwl?


What happened after...?
Remembering
Where else would you see...?
Analyzing
Why would
Understanding
What would be an example of...?
Understanding
How many ways can you...?
Creating
THINKING DICE
Higher Order Thinking
made simple

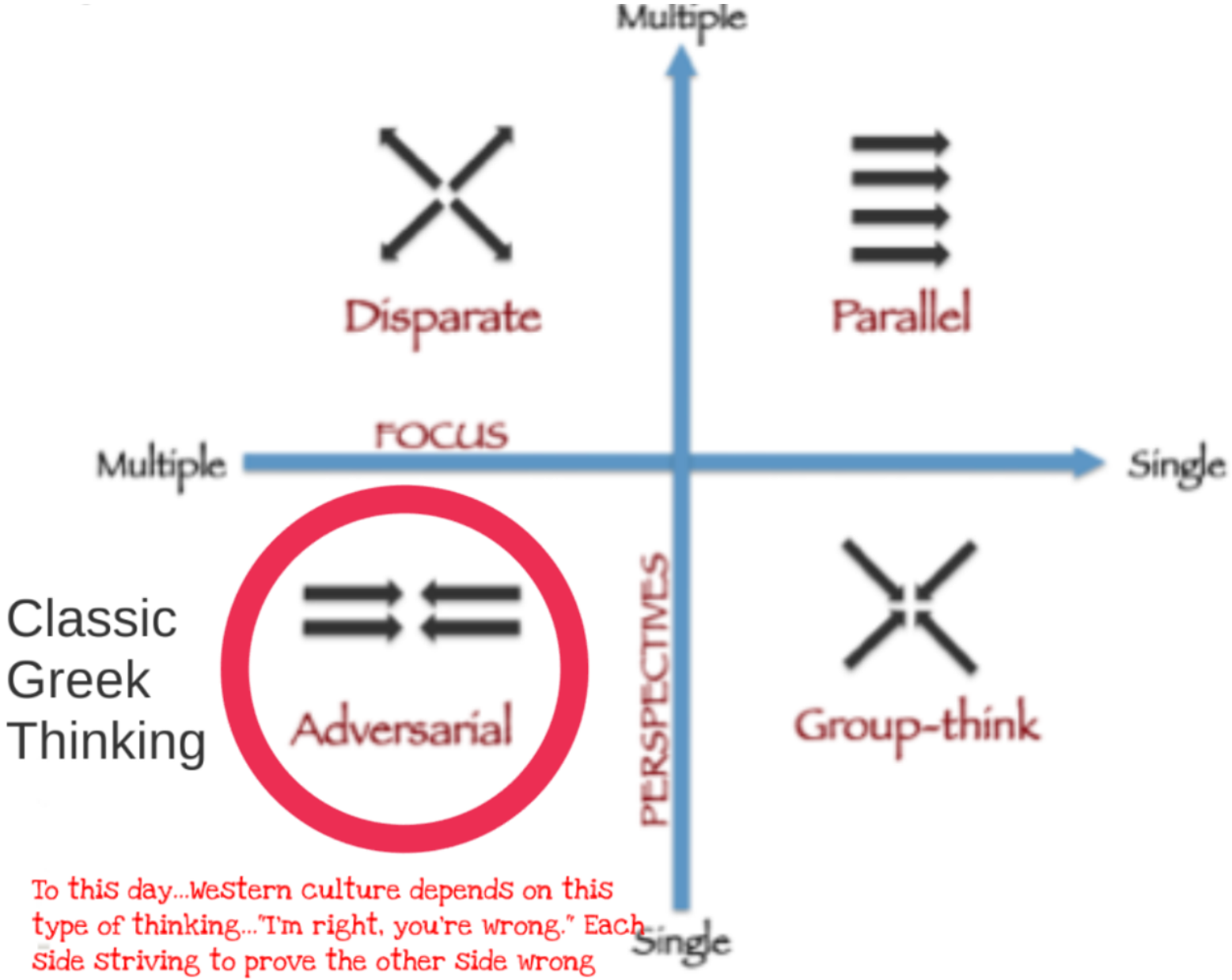

CREATING
USE INFORMATION TO CREATE SOMETHING NEW
Design, Build, Construct, Plan, Produce, Devise, Invent
EVALUATING
CRITICALLY EXAMINE INFO & MAKE JUDGEMENTS
Judge, Test, Critique, Defend, Criticize
ANALYZING
TAKE INFO APART & EXPLORE RELATIONSHIPS
Categorize, Examine, Compare/Contrast, Organize
APPLYING
USE INFORMATION IN A NEW (BUT SIMILAR) SITUATION
Use, Diagram, Make a Chart, Draw, Apply, Solve, Calculate
UNDERSTANDING
UNDERSTANDING & MAKING SENSE OUT OF INFORMATION
Interpret, Summarize, Explain, Infer, Paraphrase, Discuss
REMEMBERING
FIND OR REMEMBER INFORMATION
List, Find, Name, Identify, Locate, Describe, Memorize, Define
Bloom's revised Taxonomy



(Llywodraeth Cymru, 2013:t.16)



Should marriage be
a five year
renewable contract?



Classic Greek Thinking

To this day...Western culture depends on this type of thinking..."I'm right, you're wrong." Each side striving to prove the other side wrong with logic and reason.

Trafodaeth Balwn Boeth







Six Thinking Hats®
Quick Summary

PROCESS

Blue Hat - Process
Thinking about thinking.
What thinking is needed?
Organizing the thinking.
Planning for action.

FACTS

White Hat - Facts
Information and data.
Neutral and objective.
What do I know?
What do I need to find out?
How will I get the information I need?

FEELINGS

Red Hat - Feelings
Intuition, hunches, gut instinct.
My feelings right now.
Feelings can change.
No reasons are given.

CREATIVITY

Green Hat - Creativity
Ideas, alternatives, possibilities.
Provocations - "PO".
Solutions to black hat problems.

BENEFITS

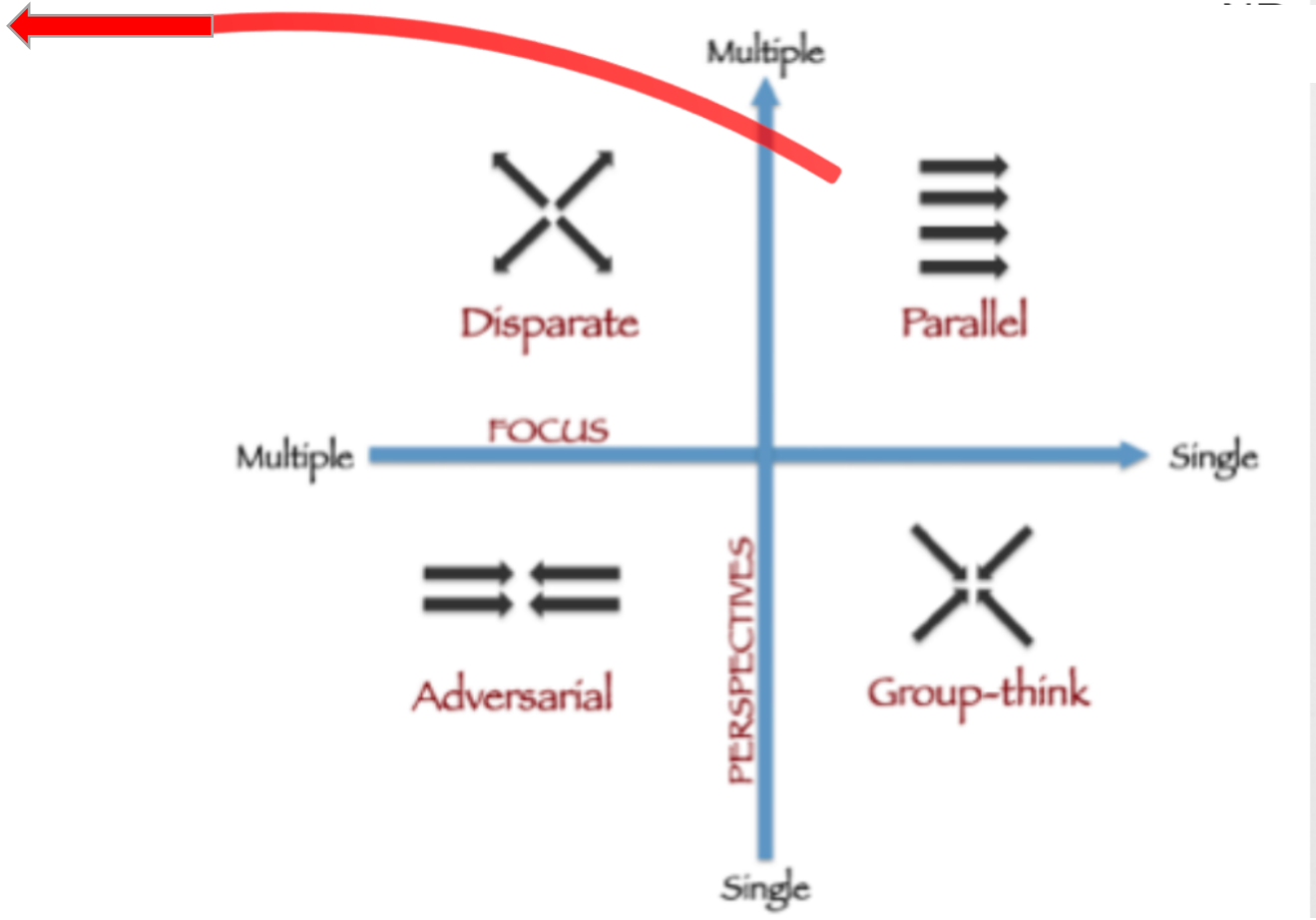
Yellow Hat - Benefits
Positives, plus points.
Logical reasons are given.
Why an idea is useful.

CAUTIONS

Black Hat - Cautions
Difficulties, weaknesses, dangers.
Logical reasons are given.
Spotting the risks.

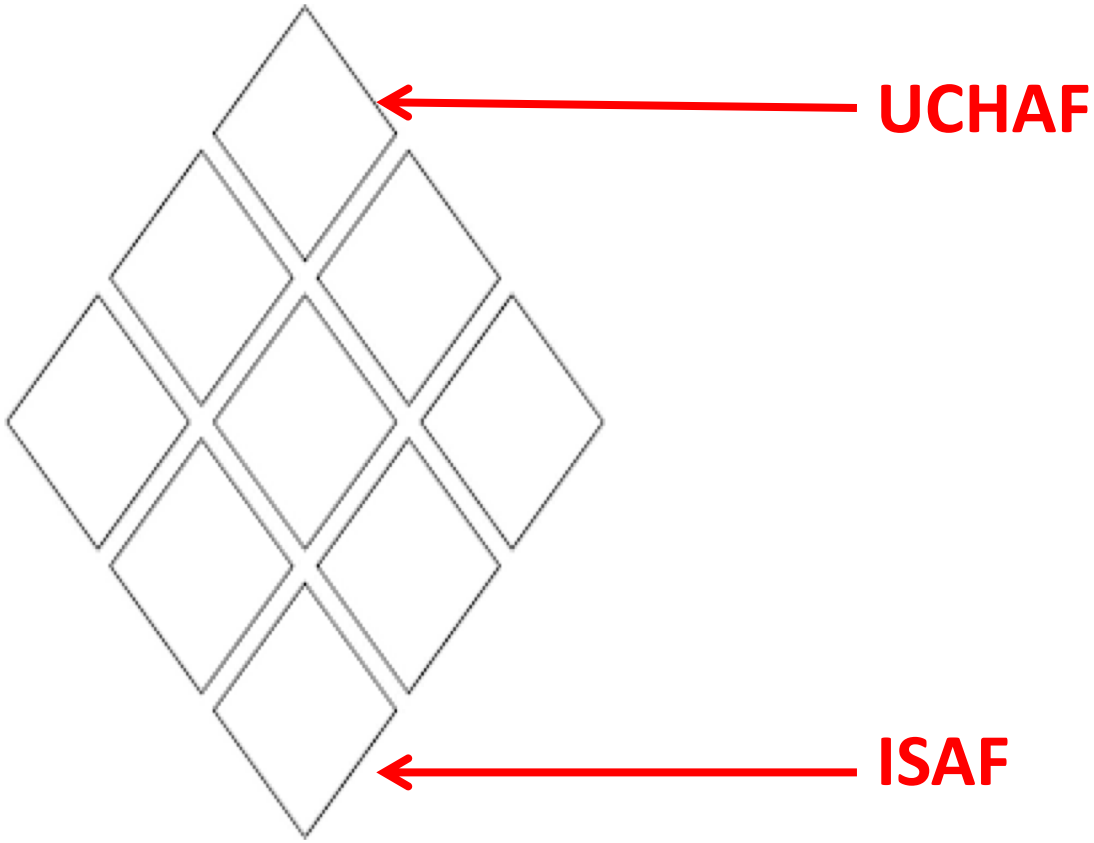
Stock Number 80701 © 2008 The McQuaig Group

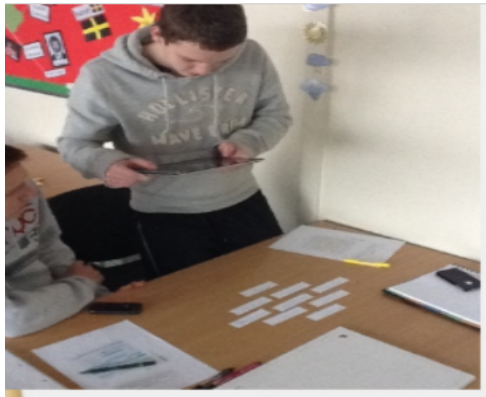
Meddwl Cyfochrog



A yw'n AagD da?

Beth yw eich naw strategaeth orau?





1 Highest

2 3

4 5 6

7 8

9 Lowest

what are your nine top strategies?

Cyfeiriadau a darllen pellach

Groisser, P. (1964) How to use the fine art of questioning, Englewood cliffs, NJ: Teachers Practical Press.

Kerry, T. (1982) Effective questioning, London: Macmillan.

Marzano, R.J. et al. (2001) Classroom instruction that works: Research-Based strategies for Increasing Student Achievement, Alexandria, VA: ASCD.

Petty, G. (2006) Evidence Based Teaching, Cheltenham: Nelson Thornes.