

Critical Thinking

A short introduction

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Plan of the session

- A bit of brain training to wake us all up
- A sample critical thinking lesson
- Why teach it at all? What skills will it equip our students with?
- Discussion questions for teachers/leaders



How many fs can you count?

Fin-ished files are the result of
years of scientific study
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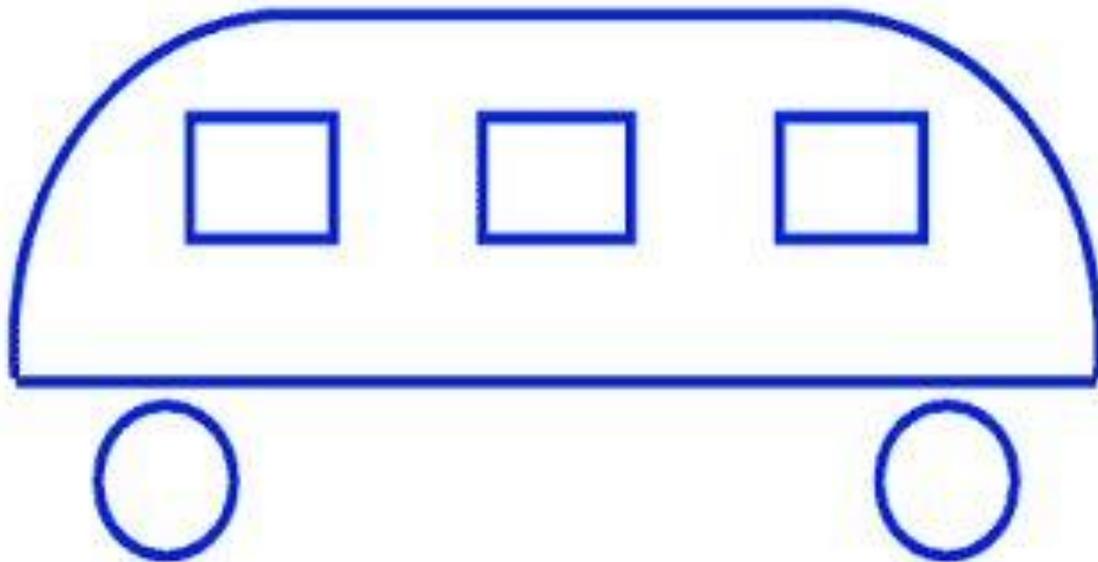
- 6 in total
- We tend to ignore the small words!



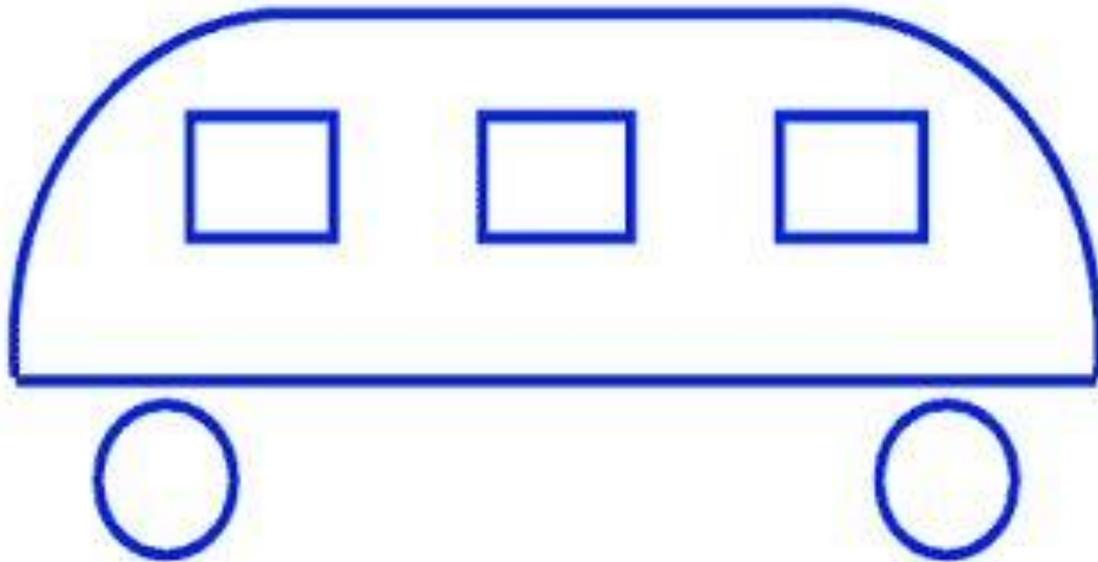
How do you cut a cake into eight pieces using only three cuts?



Which way is the bus moving?



Which way is the bus moving?



To the left, as you cannot see the door!



The blind beggar

- A blind beggar had a brother who died.
What relation was the blind beggar to the brother who died?
“Brother” is not the answer.

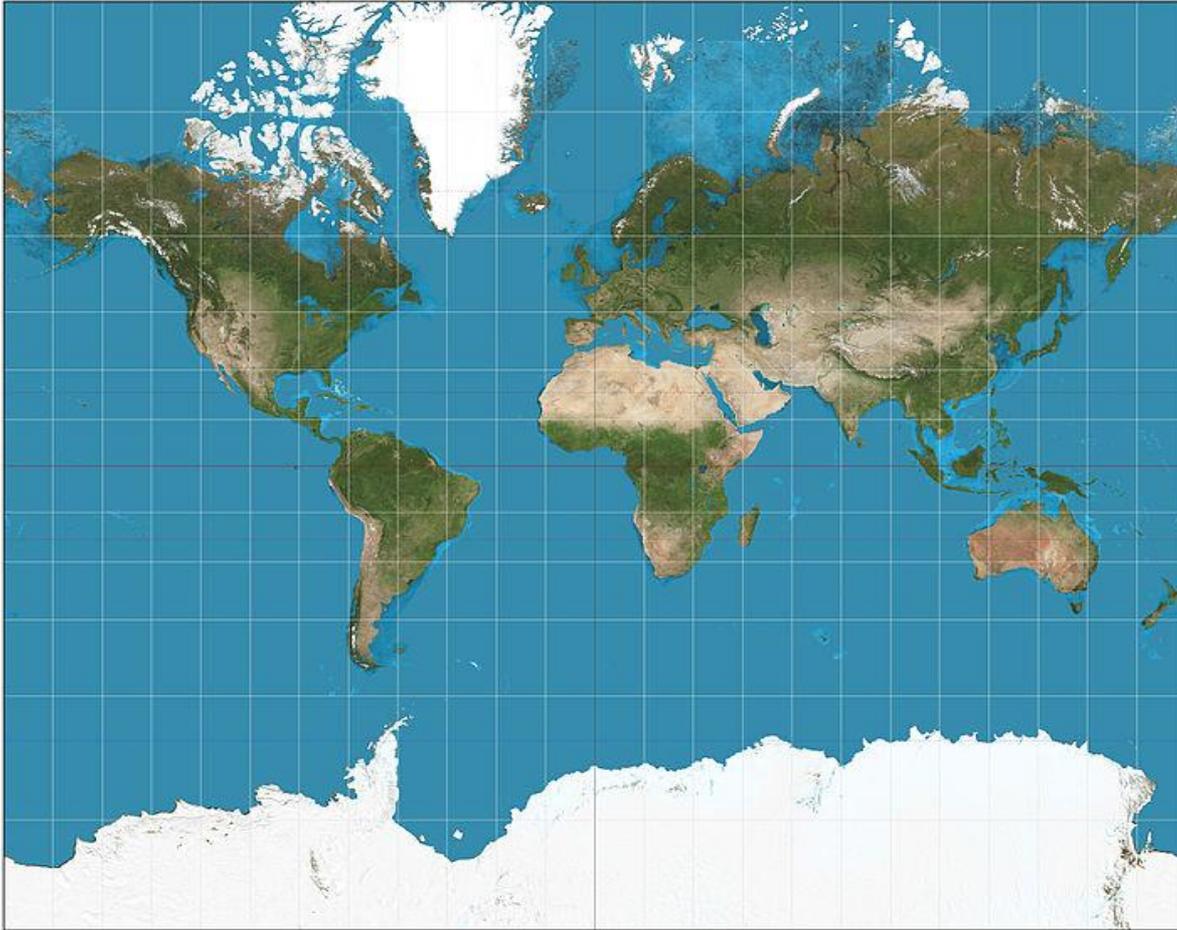


The blind beggar

- A blind beggar had a brother who died.
What relation was the blind beggar to the brother who died?
“Brother” is not the answer.
- She was his sister!



How accurate is this map?

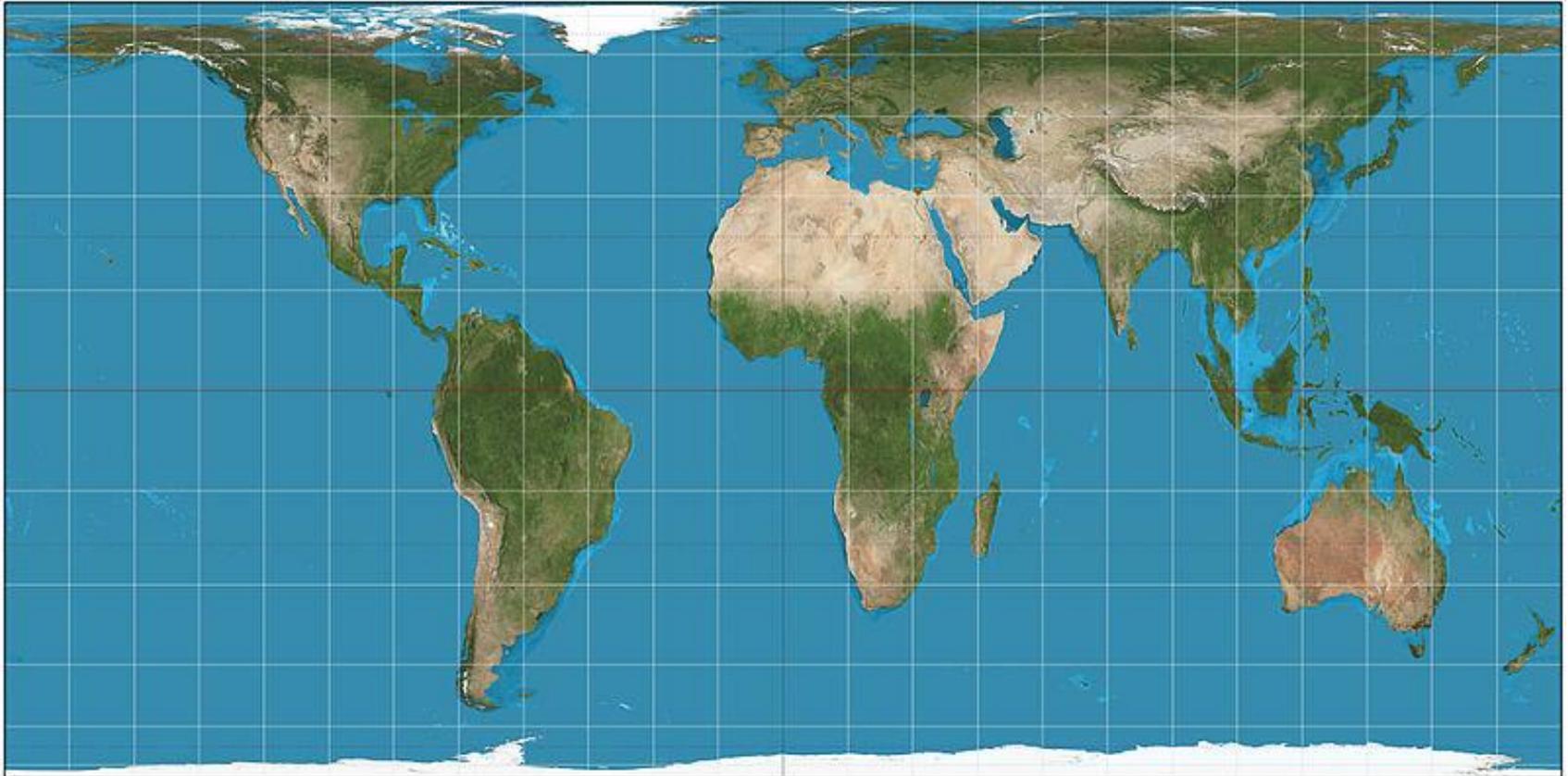


Some 'truths'...

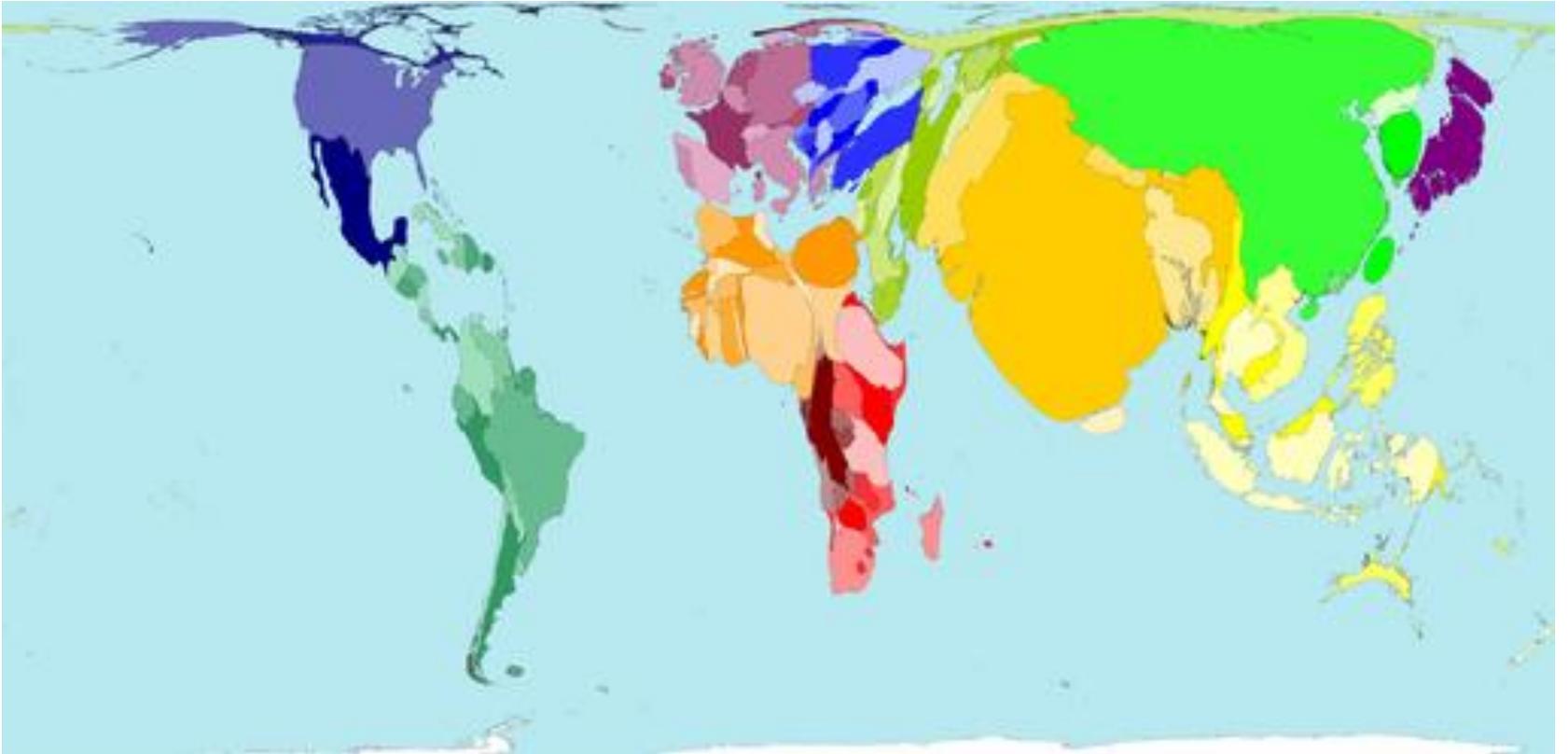
- On the map, Greenland and Africa are the same size. In reality, Africa is fourteen times bigger than Greenland
- It is based on the convention that the northern hemisphere is at the top, and the southern hemisphere is at the bottom – but how 'truthful' is this?
- Who is to say that Europe is in the centre of the world... and why has it been shown as such?



Hobo Dyer projection



By population...



From the top?



- What does this tell us about how we should approach critical thinking?



Critical Thinking
Is a Self-Directed Process
By Which We Take Deliberate Steps
To Think at the Highest Level of Quality.

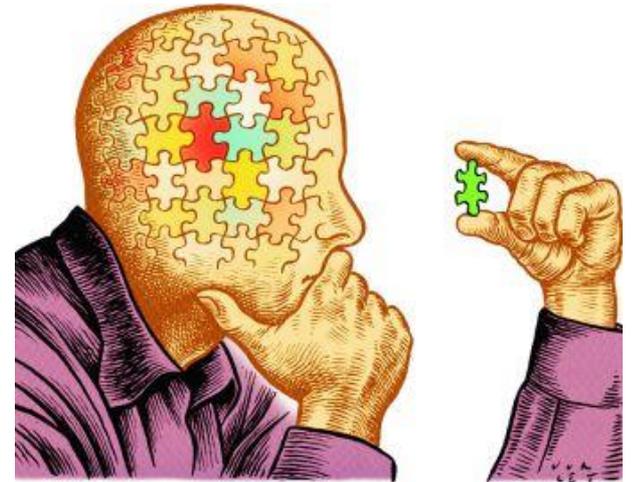


- Every step in our thinking needs to be examined. Why do we think that? What makes us think in the way we do? Are there other points of view that need to be examined?
- If we do this we become much better thinkers...

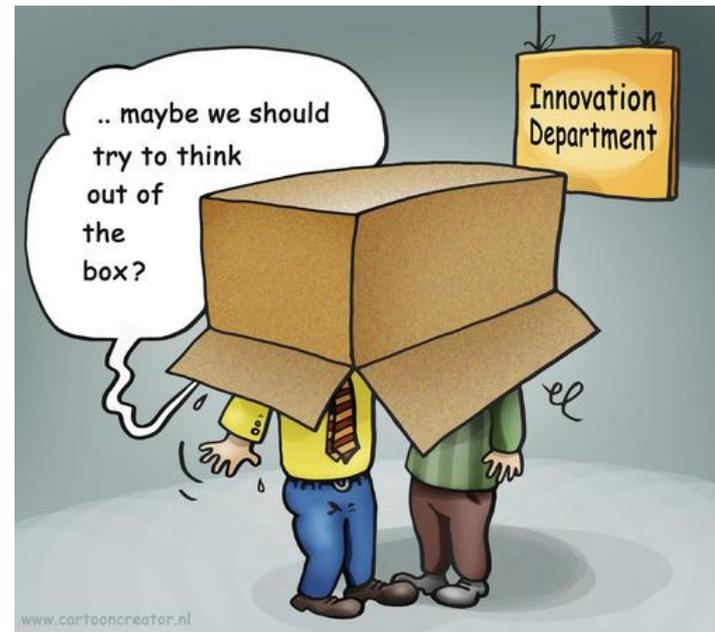


How accurate are our maps?

- If our ideas and beliefs come from our family, friends, teachers, books and the media
- we don't have time to check that everything they tell us is true
- How do we know they are right?



- It is hard for us to think outside of our customs and conventions

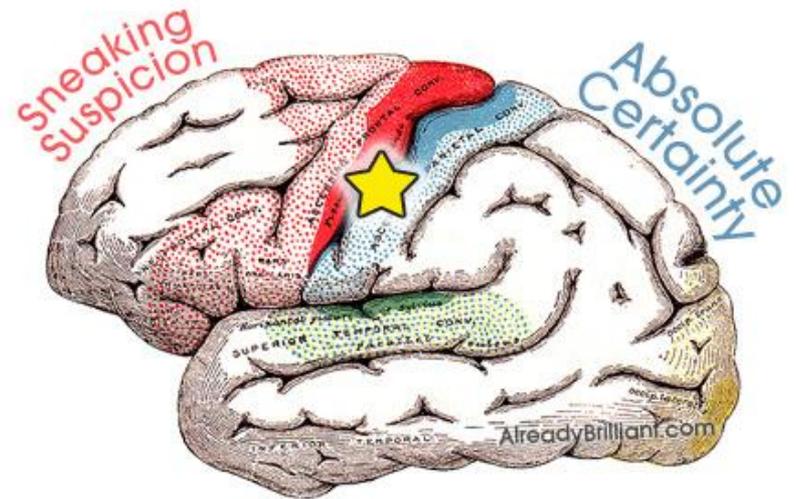


What does this have to do with our discussion?



Certainty

- List in order the five things in life that you are the most certain of



YOU ARE HERE
(for now)



How do you know that the below are true?

1. 'I know that the Twin Towers collapsed on September 11 2001'
2. 'I know that oranges are orange'
3. 'I know that murder is wrong'



How do you know that the below are true?

‘I know that the Twin Towers collapsed on September 11 2001’

- Were you there?



How do you know that the below is true?



‘I know that oranges are orange’

- But what if you are colour blind?



How do you know that the below is true?

I know that murder is wrong'

- Do others? Are you right?
Can you be sure?
- What is murder anyway?
Some people would say war,
abortion and euthanasia are
murder: are they right or
wrong?

**Murder is wrong,
unless**
masses of people are murdered at once,
it is called "war"
and endorsed by your government of choice.

DavidKretzmann.com



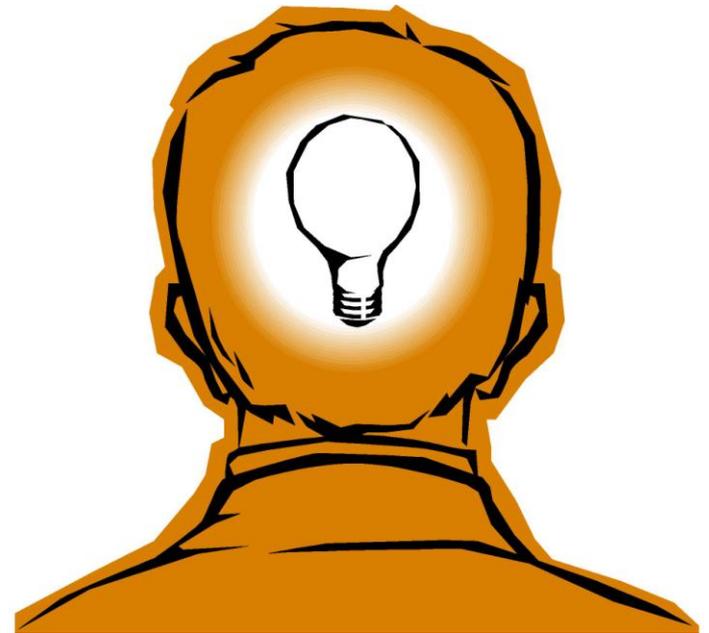
The ultimate truth

- 'I know that I exist'
 - How do you know?
 - If you cannot get outside of your own existence, how do you know that you or others exist at all?
 - Perhaps we are in a dream, and our dreams are our reality...
- Is the fact that we can think about it proof that we are thinking beings, and therefore exist?



What is critical thinking?

- ...concerned with arguments, with working out what makes a good argument and how we can work out how reliable our evidence is
- We use arguments to question our beliefs and ideas
-concerned with how we know what we know
-about how we think and not just what we think



Why teach Critical Thinking?

- We often devote too much attention to teaching students WHAT to think rather than HOW to think
- We need to teach them to examine how their beliefs and ideas about the world got into their heads in the first place, and not always to accept without questioning
- How effectively they can build an argument and can challenge the arguments of others is important



What will it enable students to do?

- To argue, debate, present a persuasive case more effectively when they are required to do this
- To see the weaknesses in arguments put by others more clearly
- To avoid common errors in constructing arguments
- Above all, to improve how they think



What will it enable students to do?

- Construct better essays and presentations
- Analyse the arguments of others in books or articles more effectively
- Argue and debate more effectively
- Construct better exam answers
- See the flaws or the strengths of arguments wherever they come across them and, in doing so, improve their skills of analysis and evaluation



In conclusion

- Our knowledge is the product of what society/parents/schools etc. have taught us (and what they were taught themselves in the past...).
- If students begin to understand more clearly the process they go through in gaining ideas and concepts about the world, they can be more critical in their thinking processes
- They can therefore offer more robust arguments and understand how the arguments of others are constructed
- Knowledge is power...



Discussion questions

- Which subjects lends themselves best to a critical thinking approach?
- Can you think of examples of how you might approach a subject you teach differently bringing in the ideas discussed today?
- What might be some of the challenges a leadership team could face when wishing to integrate critical thinking into the curriculum?
- Are there particular social or political issues that teachers have to be mindful of when bringing in ideas such as these?

