STUDY SKILLS AND SUPER-CURRICULARS

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SESSION OUTLINE & AIMS

By the end of this session you will…

CRITICAL THINKING
• Know where to find super-curricular resources and how to use them

SUPERCURRICULARS
• Feel more prepared for the learning styles in play at university

METACOGNITION
• Be able to reflect on what does and doesn’t work for you

STUDY TECHNIQUES
• Be able to identify techniques to shape your own revision process
What is critical thinking and how do you do it?
WHAT IS CRITICAL THINKING?

Critical thinking is when you...

• Understand the links between ideas
• Determine the importance and relevance of arguments and ideas
• Recognise, build and appraise arguments
• Identify inconsistencies and errors in reasoning
• Approach problems in a consistent and systematic way
• Reflect on the justification of your own assumptions, beliefs and values
• Explain, not just describe, ideas
WHAT DOES CRITICAL THINKING HELP WITH?

CURRENT SCHOOL WORK

UNIVERSITY APPLICATIONS
Personal statements & admissions tests

UNIVERSITY TEACHING & LEARNING
THINKING CRITICALLY

INTEREST
• What about this do I find interesting and why?

CONTEXT
• What is the resource and why is it like this?

WIDER THINKING
• How does this fit with what you already know?
• What can you do to find out more?

OPINION
• Do you agree and why? Is it a convincing argument?
EXAMPLE – CLIMATE CHANGE VIDEO

Take 3 minutes to answer some of these questions…

1. **INTEREST** - What was the main point of the video? What did you take away from it or find interesting?

2. **CONTEXT** - What was the purpose of the video? Why do you think it was made?

3. **WIDER THINKING & OPINIONS** - Did the video fit with other things you know about climate change/marine biology/social geography? Did it make you think about any broader questions or anything else you know? How might they be relevant and what would you like to find out next?

It is okay if this clip wasn’t about a topic you’re interested in, the point of super-curricular learning is that you get to pick the things that make you excited about that subject!
EXAMPLE – TIMES COVER, BARACK OBAMA

Printed 29th December, 2008

1. **INTEREST** - What is interesting about this cover?
2. **MESSAGE** - What is the purpose of the cover? What is the effect of the image?
3. **WIDER THINKING & CONTEXT** - What is the context of the cover? What was the political context? What is it trying to portray?
4. **OPINION** - Does the cover fit with other things you know about American politics/global affairs/the media? What bigger questions does this image make you think about?
EXAMPLE – TIME COVER, BARACK OBAMA

Printed 29th December, 2008

1. **INTEREST:** colour scheme; comic book style of cover.
2. **MESSAGE:** Obama named Person of the Year; won the presidential election in November 2008; TIME a generally liberal magazine.
3. **WIDER THINKING:** TIME portraying Obama as an American hero; image evokes superheroes, e.g., Captain America. First black president in the US.
4. **OPINION:** Media has the influence to promote a leader as a hero; Obama presidency signals a new liberal era.
SUPER-CURRICULAR ACTIVITIES

WHAT?
• What does this mean?
• What counts?

WHERE?
• Where can I find super-curriculars?

WHY?
• When will I need this?
• How will I use super-curriculars?
QUIZ: WHAT IS A SUPER-CURRICULAR ACTIVITY?

A. Something you’re the best at
B. The things you do well at within the curriculum
C. Academic things you do outside of the curriculum
D. Non-academic things you do outside of the curriculum
QUIZ: WHAT IS A SUPER-CURRICULAR ACTIVITY?

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WHAT COUNTS AS A SUPER-CURRICULAR ACTIVITY?

Start building your super-curricular activity portfolio now!
STEPPING STONES

Super-Curriculars: English
- Studied Angela Carter at A-Level (feminist author)
- Watched interviews with Angela Carter
- Podcasts: In Our Times 'Literary Modernism'
- EPQ about magazines & feminist movement

Super-Curriculars: Biology
- Infinite Monkey Cage: What is Life
- Gresham College Biology Lectures
- David Attenborough documentaries
- The Amoeba Sisters
- Very Short Introduction: Developmental Biology

Read more literary texts
...AND WHERE CAN I FIND THEM?

It doesn’t have to cost a penny and lots can be done from home. Find what suits you and the sooner you start the more experience you’ll have.

These sites are great starting points, and can be used to help you navigate – take notes, follow your own interests, and don’t see these as reading lists to be ‘ticked off’!
<table>
<thead>
<tr>
<th>Anglo Saxon, Norse and Celtic</th>
<th>Anthropology</th>
<th>Archaeology</th>
<th>Architecture</th>
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<tbody>
<tr>
<td>Asia and the Middle East</td>
<td>Biology</td>
<td>Chemical Engineering</td>
<td>Chemistry</td>
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<tr>
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</thead>
<tbody>
<tr>
<td><strong>READING BRITAIN’S LANGUAGES</strong></td>
<td>Watch Llewelyn’s video on medieval and modern languages</td>
</tr>
<tr>
<td><strong>SLEEP TIGHT: THE SCIENCE OF SLEEPING</strong></td>
<td>Watch Siân’s video on why we sleep and how to do it better</td>
</tr>
<tr>
<td><strong>LITERARY ADVOCATES FOR ANIMALS</strong></td>
<td>Watch Laura’s video on 19th Century animal relations</td>
</tr>
<tr>
<td><strong>EVOLUTIONARY SEXUAL CONFLICT</strong></td>
<td>Watch Joe’s video on sexual conflict in the animal kingdom</td>
</tr>
<tr>
<td><strong>BLENDING FICTION &amp; PHOTOGRAPHS</strong></td>
<td>Watch Olivia’s video on the Portuguese Colonial War</td>
</tr>
<tr>
<td><strong>JOURNEY TO THE CENTRE OF THE EARTH</strong></td>
<td>Watch Matthew’s video on Earth Sciences &amp; seismic waves</td>
</tr>
<tr>
<td><strong>THE STATUS OF THE READER IN LITERATURE</strong></td>
<td>Watch Laura’s video on authorship and being a reader</td>
</tr>
<tr>
<td><strong>TALKING TRASH: OUR RUBBISH AS HISTORY</strong></td>
<td>Watch Ilia’s video on contemporary archaeology</td>
</tr>
<tr>
<td><strong>WHY ARE FLOWERS SO IMPORTANT FOR BEES?</strong></td>
<td>Watch Ellen’s video on pollinators and the flowers they need</td>
</tr>
<tr>
<td><strong>SLAVERY IN ANCIENT GREECE</strong></td>
<td>Watch Matthew’s video on the perspectives of ancient slaves</td>
</tr>
<tr>
<td><strong>SAVING SHARKS: WHAT, WHY &amp; HOW?</strong></td>
<td>Watch Hool’s video on why shark conservation matters</td>
</tr>
<tr>
<td><strong>INTRODUCING CHINESE LANGUAGE &amp; CULTURE</strong></td>
<td>Watch Nienke’s video on understanding Mandarin Chinese</td>
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ONLINE RESOURCES

LECTURES & PODCASTS

COMPETITIONS

THE ROYAL SOCIETY

IOP Institute of Physics

LEARNED SOCIETIES

STEM & MEDICINE
REAL EXAMPLES

• “Recently I read ‘Junk DNA’ by Nessa Carey and I was surprised by the power of the long non-coding RNAs and small RNAs that were believed for so long to have no purpose, especially their impact on cancer. It excites me that there are still many biochemical discoveries to be made that I could be a part of. CRISPR, one such development, was brought to my attention by a Radio 4 program ‘Editing Life’ and I later attended a lecture on the topic.”

• “As I witnessed lawyers overcome countless language barriers to defend clients I became aware that lawyers need to be well-rounded individuals. As a Police Cadet, this allowed me to explore the law from different perspectives, gaining an understanding of legal procedure and law enforcement, which I have been able to further through completing a FutureLearn Course in International Franchise Law.”

• “Upon listening to artists such as Maria Rita, Sergio Mendes and various Bossa Nova groups, I also started to take on-line classes in Portuguese, which has given me a new insight into the vast Latin American culture as well as preparing me for ab initio classes in Portuguese at university. Naturally, I enjoyed drawing comparisons between the languages I know, in particular the similarities of Old Scots and Norwegian.”

• “I have completed an EPQ on the debate about whether Playboy exploited or liberated women during the second wave feminist revolution: I pursued this project because I could expand my research skills. I chose this controversial topic for its contextual link to the work of Angela Carter, a favourite author of mine because of her blend of archaic language and provocative subversions. I find of particular interest the Marxist theory of alienation that is prevalent within her books such as The Bloody Chamber.”
Listening to the Law in Action podcast on human rights introduced me to the intersection of formal and informal justice systems. I was struck by the way in which the Universal Declaration of Human Rights simultaneously protects our physical, mental, social and cultural rights and the way in which it is enforced. This led me to watch a lecture by Sir Geoffrey Nice QC on forced organ harvesting in China. I was fascinated by how informal Peoples’ Tribunals have investigated these abuses of human rights in a way which the official court system cannot do itself. This demonstrated to me how the law can be used directly by the people it protects, rather than just being set and enforced by official bodies. I am now investigating how this concept can be applied in other areas of human rights.

1. What have you done?
2. What were you struck by?
3. What did you do to find out more?
4. What questions were raised?

Demonstrates critical thinking through supercurricular activities!
SUPER-CURRICULARS

Critical engagement with the subject you’re interested in

Go for depth over breadth

Think about discussion and connection, not just listing!

Use as stepping stones – can you link thoughts together?
HOW DO YOU LEARN?

QUIZZES?
PICTURES & DIAGRAMS?
SONGS & RHYMES?
SUMMARISING?
TALKING ALOUD?
MEMORY PALACES?

RE-ORGANISING NOTES?
MIND MAPS?
PRACTICE QUESTIONS?

COLOURED NOTES?
HIGHLIGHTING?

RE-READING NOTES?

RE-WRITING NOTES?

FLASHCARDS?
APPS?
DISCUSSION WITH OTHERS?
MUTUAL TEACHING?
THINKING ABOUT... THINKING

METACOGNITION CYCLE

ASSESS THE TASK
EVALUATE STRENGTHS & WEAKNESSES
PLAN THE APPROACH
APPLY STRATEGIES
REFLECT

THINKING ABOUT... THINKING

METACOGNITION CYCLE

ASSESS THE TASK
EVALUATE STRENGTHS & WEAKNESSES
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REFLECT
FOUR STAGES TO PROBLEM SOLVING

We do not often move neatly through these four stages: sometimes we jump stages or revisit stages as part of a process of clarification and restarting the problem.

1. UNDERSTAND THE PROBLEM
2. DEVISE A PLAN
3. CARRY OUT THE PLAN
4. LOOK BACK
METACOGNITION

1. UNDERSTAND
   • What do I know?
   • What am I uncertain about?
   • What do I need to find out?
   • What is the problem?
   • Can I put the problem into my own words?

2. DEVISE
   • Is there a diagram I could draw to help?
   • Have I seen something like it before?
   • Is there a different way of representing this info?
   • Can a model help me solve this problem?

3. CARRY OUT
   • Consider novel approaches and/or solutions
   • When you think you might know what’s wrong, try a few different options.
   • You won’t know whether something works unless you try it out.

4. LOOK BACK
   • Have I answered the question?
   • Check for sense and consistency
   • Read through the solution and check the flow of logic.
   • What have you learnt?
   • What could you have done differently?
THINKING ABOUT...
THINKING

“Complete an essay for A Level History”

ASSESS THE TASK
Do you have evidence and class notes? Have you done something similar before? What is the question really asking?

EVALUATE STRENGTHS & WEAKNESSES
What has been the feedback on previous essays? What do you enjoy/find tricky?

PLAN THE APPROACH
Can you start straight away or do you need further research? How can you improve on weaknesses?

APPLY STRATEGIES
Plan and write essay

REFLECT
Did you feel it was a good essay? What feedback did you get? Did you enjoy writing it? If you had time to do it again what would you do differently?

“Complete an essay for A Level History”

APPLY STRATEGIES
Plan and write essay

REFLECT
Did you feel it was a good essay? What feedback did you get? Did you enjoy writing it? If you had time to do it again what would you do differently?
STUCK?...

- Try special cases or a simpler problem
- Work backwards
- Guess and check
- Be systematic
- Work towards subgoals
- Imagine your way through the problem
- Look for patterns: are there things that keep happening which could be causing the problem?
- Are you repeating things that prevent you from moving forwards?
- Has the plan failed? Know when it’s time to move on and try something new
Using Metacognition to develop revision strategy

‘I can struggle to read lots of information in one go’

Break information down into manageable parts, e.g., flashcards and mindmaps.

Do short bursts of concentrate learning, e.g., set a timer and break every 25 minutes.

EVALUATION

APPLY A STRATEGY

REFLECT: DO YOU FEEL BETTER PREPARED FOR A TEST?
In maths, you are introduced to a new element of algebra – which you don’t seem to understand intuitively.

Rewriting notes

Testing Knowledge

Discussion with others

New Perspectives

Discussion with others

Making new connections

Mind maps

Highlighting

Trying to Understand

Trying to Understand

Trying to Understand

Revising for English, you want to understand the characters in a key text better.
SUMMARY

It’s all about you – how you work best and what interests you the most

Metacognition may help improve your revision

Actively engage with your subject using critical thinking - (don’t be a passive viewer, have opinions!)
What is one study technique you plan to take away from today?