Leaving Certificate Applied
Mathematical Applications

Participant Workbook
Webinar 3

Contents

Circular 0070/2020

The four revised module descriptors and their timetable for introduction are outlined below.

Revised Leaving Certificate Applied Module Descriptors	Original Implementation Date	Revised Implementation Date	First Leaving Certificate Examination
English and Communications	September 2020	September 2021	June 2023
Mathematical Applications	September 2020	September 2021	June 2023
Introduction to Information and Communication Technology	September 2020	September 2021	June 2023
Information and Communication Technology: Specialism	September 2020	September 2021	June 2023

Key Message

The focus of this webinar is anchored in key message four from national seminar day 2.

LCA Mathematical Applications seeks to consolidate students' knowledge and skills through practical, problem-solving set in meaningful contexts through critical and creative thinking.

PDST CPD Timeline
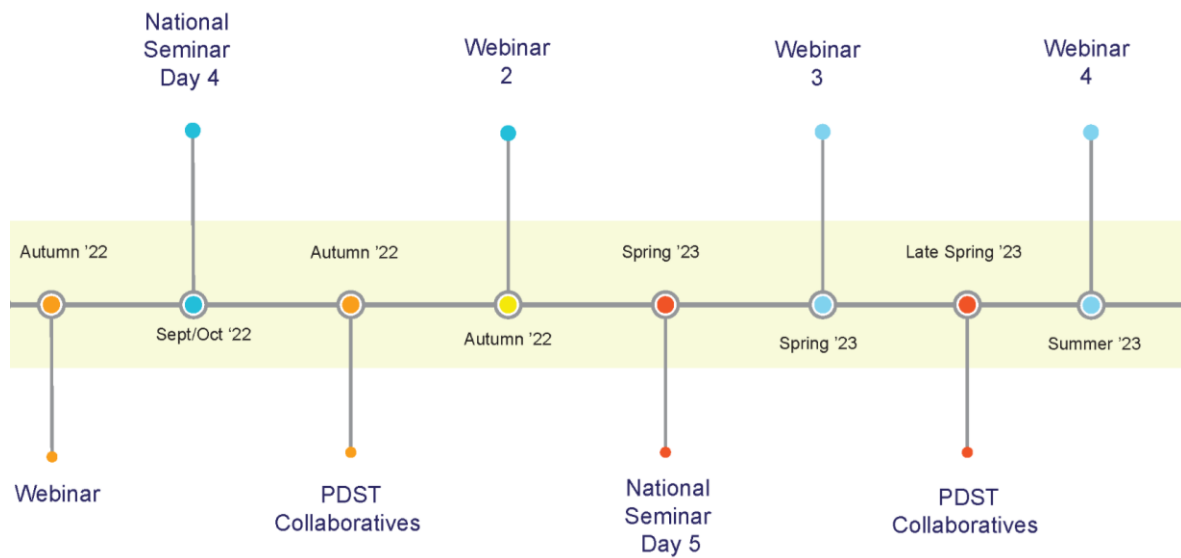
This shows the schedule for Year 2 of the professional development support continuum for LCA Mathematical Applications teachers.
This is the third in a series of webinars designed to support teachers as they introduce the module descriptors in their classrooms.

Below is a QR code to bring you to the module descriptors in LCA.

What particular strategies can you put in place to encourage a growth mindset in your LCA Mathematics Applications classroom?

How can a growth mindset guide you in your LCA classroom and support your students in preparing them for critical and creative thinking?
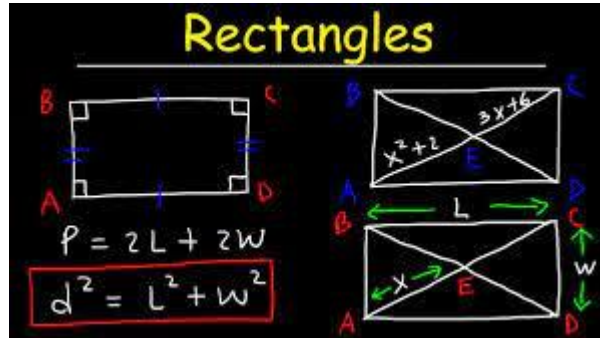
How could you support a growth mindset when choosing content to use in your LCA Mathematical Applications classroom?'

Strategies to enhance critical and creative thinking in the mathematical applications classroom

Open Problem Prompts

"A rectangle has a perimeter of 24m. What might be its area?

Find as many different rectangles as you can."

Convince Me Prompts

1. **Estimated max heart rate:**

220-24= 191 Is it true? Justify

2. **Karvonen formula:**

[(220 - 60)x 60%]+52 Is it true? Justify

3. **RM-1 Muscle Strength Formula:**

(0.033 x 12 x 10kg) + 10 kg Is it true? Justify

How can you adapt these strategies in your own LCA Mathematical Applications classroom to encourage critical and creative thinking?

How can you support your students when using these strategies?

Role Cards and Sentence Starters

Ask a question	Praise your classmates work or ideas	Challenge your peers
Synthesise ideas to conclude the task	Paraphrase what your classmate has said	Further develop your peers point
Review how well your group worked together	Clarify what your peers are saying	Summarise what your peers have said

Could I ask a question in relation to…. Have you considered this question….	Thats a great idea which I had not thought of That's an excellent point	That is an interesting point, however, I believe that… Despite the fact that…, I think….
Looking at all our ideas we could…as the next step So the most important elements of what we have done is…..	So what you are saying is… In other words…	This is an interesting point, have you also thought about…. I would like to add to your point by saying….
Two areas of this task that we/I did well were…. One area we/I could improve was	So what you mean is… If I understand you correctly, you're saying that….	To recap what that group have said… So the overall point of that was…

Planning for creative and critical thinking

When planning for your LCA students how can you as a teacher promote and support critical and creative thinking?

Please take a moment to visualise your 3 LCA students of varying academic abilities - one relatively high achieving, one of average ability and one who has a lot of academic challenges. Take a moment to reflect how you have approached critical and creative thinking in your LCA Mathematical Application classroom to date considering these 3 LCA students.

When planning for your LCA students how can you as their teacher promote and support critical and creative thinking?

Reflection Activity	
1. What are the barriers and enablers for critical and creative thinking in your LCA Mathematical applications classroom?	2. How can the school community support this process?

3. **How can I as an LCA Mathematical Applications teacher engage my students and their parents/guardians to cultivate a culture of participation and collective responsibility regarding critical and creative thinking?**

Further Resources

https://ncca.ie/media/3380/ks_framework.pdf

www.ncse.ie

www.pdst.ie

https://pdst.ie/sites/default/files/Integrated%20Approach_0.pdf

https://www.youtube.com/watch?v=M1CHPnZfFmU&t=2s

https://www.gov.ie/en/publication/b1bb3-looking-at-our-school-2022/#

Notes