



Photo by Javier Quesada on Unsplash

# Leaving Certificate Applied LCA Mathematical Applications Module Descriptors

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## Participant Workbook - Day 5

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## Key Messages

Courses in LCA are inherently transdisciplinary, authentic and relevant to the current and future needs of all students

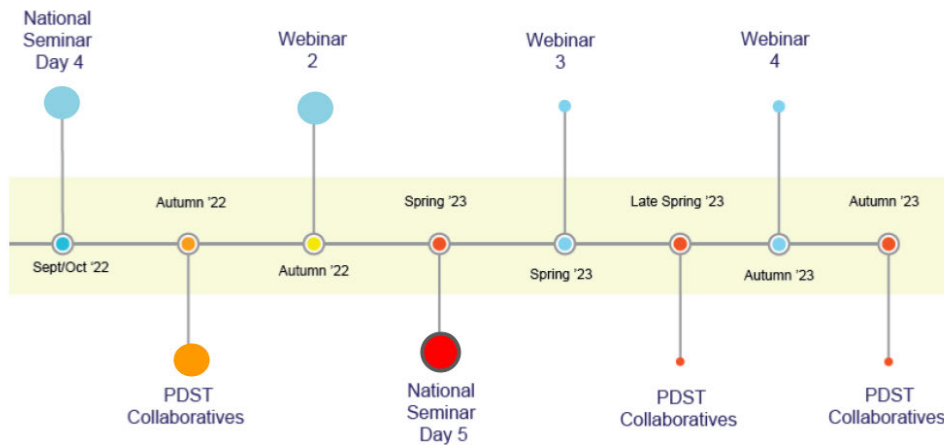
The Mathematical Applications module descriptor supports the use of a wide range of inclusive, differentiated, experiential teaching and learning approaches

Real documents and authentic context are paramount to exploring the mathematical implications of decisions

We should consider all Mathematical Concepts and Skills (MCS's) when engaging with learning outcomes

## PDST Supports

### CPD for the revised module descriptors



Leaving Certificate Applied Subject Specification CPD



Email: [lca@pdst.ie](mailto:lca@pdst.ie)  
 Website: [www.pdst.ie/lca](http://www.pdst.ie/lca)  
 Scoilnet: <https://www.scoilnet.ie/go-to-post-primary/lca/>



## Session 1: 9.30 - 11.00

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### Unpacking Learning Outcomes

What knowledge, understanding, skills and values do our students need?	How will I recognise their progression? What do they need to develop next?	What will I do to get them there? What MCS's are involved in your learning outcome?

## Prior Knowledge and MCS

Identify sources of prior knowledge for our students.

	<b>Unit 1: Mathematics and Work</b>
Primary School	
JC Maths/TY Maths	
Module 1, 2 & 3 Maths Applications	
Other school work	
Other Life Skills	
MCS (1-5)	

## Prior Knowledge and Real Life Documents

What prior knowledge would students need to have to engage with these real life documents?

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What potential is there to engage with Mathematical Concepts and Skills?

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What transdisciplinary links could we make? How could we extend into other subjects?

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How could you use this in the classroom?

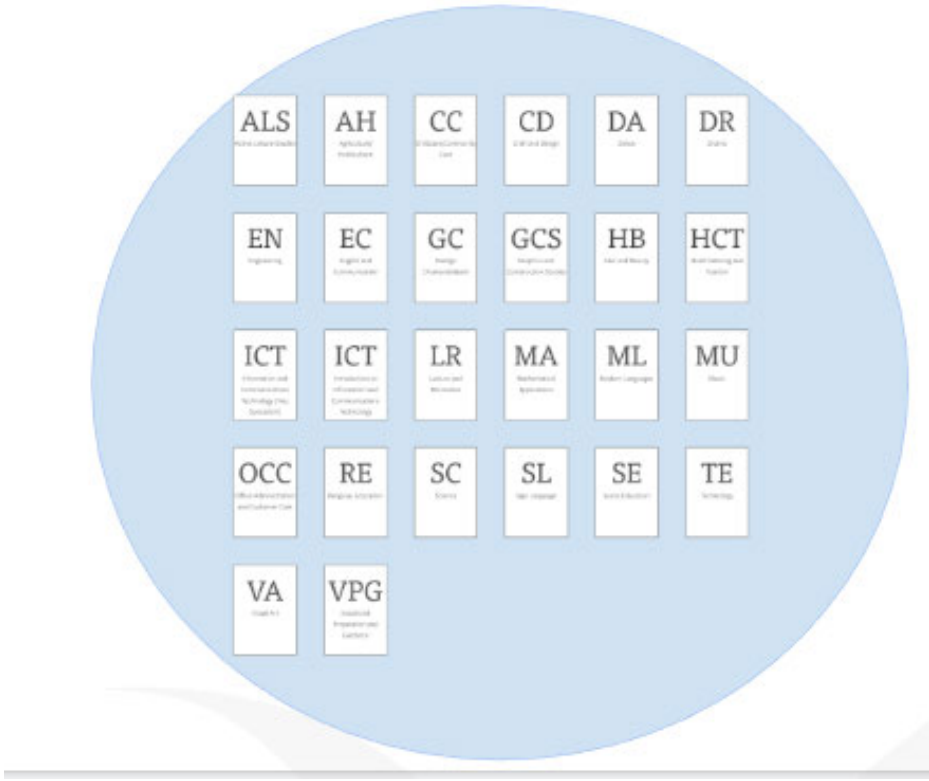
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## Transdisciplinary Links



What modules are ongoing in other LCA subjects for my students at this time and can you identify some of the **Maths content** involved?

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How are you supporting students to make connections between the subjects

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What opportunities are there for transdisciplinary work for my students?

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How can I work more collaboratively with other teachers in my school?

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## Session 2: 11:30 - 1:00

### Session 2 Activity 1: A Year in the Life

#### Student Activity

The aim of this activity is to calculate your monthly take home pay by investigating a chosen job/career and then use this information to inform your choices about lifestyle and complete a budget.

The task is split into three parts:

**Part a)** Choose a career option and calculate your monthly income.

**Part b)** Calculate all of your expenditure under the appropriate headings

**Part c)** After completing the activity, you will need to complete the monthly budget.

#### Part A

PAY SLIP			
Employee Name:		Rate: Hours:	
Earnings		Deductions	
Gross Monthly Income		Income Tax €___@20%	
Overtime		PAYE	
		PRSI	
		USC	
Total Earnings		Total Deduction	
NET Monthly Income			

What do your students need to consider in identifying career goals ?

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What do your students need to consider when completing a payslip?

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What support might students need to address this question?

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**Part B**

- Group 1: Accommodation
- Group 2: Gas and electricity
- Group 3: Television, phone and broadband
- Group 4: Transportation
- Group 5: Food, clothes, entertainment and holidays

My group: \_\_\_\_\_

What do your students need to consider in investigating each area of expenditure ?

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How could you students represent this information graphically?

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What support might students need to address this question?

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**Part C**

Income	
Category	Amount
Salary/wages	

Expenditure	
Category	Amount
Rent	
Food	
Phone	
Gas	
Electricity	
Bins	
Broadband	
Transportation	
Miscellaneous	
Clothes	
Entertainment	
Holidays	
Total Income:	
Total Expenditure:	
Money Remaining:	

What support do your students need to consider when analysing and interpreting the budget?

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If you were doing this problem with your students, how might you guide them?

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How would you bring this learning back to the classroom? What are the next steps?

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## Session 2: Activity 2 Job Costing

What support do your students need to consider when costing a job?

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If you were doing this problem with your students, how might you support them?

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How would you bring this learning back to the classroom? What are the next steps?

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## Discussion Card 3

### Peer feedback

**These five steps can be shared with students to help them give each other feedback**

**01.** The first time you read through your partner's piece of work hold off giving any comments. You don't want to swamp your partner with suggestions. You want to focus on the main strengths and weaknesses of the work, based on the success criteria agreed with the teacher.

**02.** If you notice that there are misspellings or mistakes in punctuation, just point out the problem but let the person fix it themselves.

**03.** Then try to point out

- What has been done well
- What has been less successful
- One or two suggestions on how improvement can be made

**04.** Make your comments as specific as possible reminding your partner of the success criteria.

**05.** Be honest with each other and sensitive too! Never say or write something harsh or critical that will hurt another student.

Having read these steps, discuss how you might apply them in your class? Are there other ways you could develop students' skills in giving and receiving feedback to each other? What are the benefits for students of peer feedback?

# Peer Feedback

(sample template)



Date: / /

**Your name:**

**Their Name:**

**Title of work**

Success criteria	How did this piece of work achieve the success criteria?

	<b>Two excellent points</b>
	
	

**This could be improved by...**





## Session 3: 2:00 - 3:30

### Yearly Planning

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### Planning a unit of learning

#### Module 4 Mathematics and Work

##### Unit learning outcomes:

Learning outcome 1: Analyse and interpret information about income and expenditure represented in words/equations/tables/graphs or charts.

Learning outcome 2: Create an estimate for a job including costings such as materials, labour, taxes and profit margin

Learning outcome 3: Analyse, interpret and communicate relevant information in relation to wages, time worked and holidays communicated in words/tables/charts/payslips or graphs.

Learning outcome 4: Compare and contrast different job contracts and justify decisions made with mathematics.

##### Mathematical Concepts and Skills underpinning learning outcomes:

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##### Prior Knowledge:

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<b>Transdisciplinary Links to other LCA Subjects:</b> <ul style="list-style-type: none"><li>•</li></ul>
<b>Learning activities: Number of Weeks:</b> <ul style="list-style-type: none"><li>•</li></ul>
<b>Success Criteria:</b> <b>Students will be able to:</b> <ul style="list-style-type: none"><li>•</li></ul>
<b>Opportunities for Formative Assessment:</b> <ul style="list-style-type: none"><li>•</li></ul>
<b>Case Study title:</b>
<b>Stage 1 (Finding out):</b> <ul style="list-style-type: none"><li>•</li></ul>
<b>Stage 2 (Collecting, Comparing and Calculating):</b> <ul style="list-style-type: none"><li>•</li></ul>
<b>Stage 3 (Interpreting):</b> <ul style="list-style-type: none"><li>•</li></ul>
<b>Stage 4 (Making judgements)</b> <ul style="list-style-type: none"><li>•</li></ul>
<b>Stage 5 (Communicating):</b> <ul style="list-style-type: none"><li>•</li></ul>

## Next Steps

1. What new learning have I come to?

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2. What are the implications for my teaching?

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3. What will you do differently to maximise learning for ALL learners in your class?

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# Appendix

## Extracts from other LCA Module Descriptors

All LCA module descriptors can be found here:

<https://www.curriculumonline.ie/Senior-cycle/LCA/>

## References

NCCA: Effective Questioning: [https://ncca.ie/media/1924/assessment-booklet-2\\_en.pdf](https://ncca.ie/media/1924/assessment-booklet-2_en.pdf)

NCCA Formative Feedback [https://ncca.ie/media/1925/assessment-booklet-3\\_en.pdf](https://ncca.ie/media/1925/assessment-booklet-3_en.pdf)

NCCA: Learning Intentions and Success Criteria

[https://ncca.ie/media/1947/workshop-1\\_designed-slides\\_en.pdf](https://ncca.ie/media/1947/workshop-1_designed-slides_en.pdf)

## Links

[www.ncse.ie](http://www.ncse.ie)

<https://ie.talent.com/tax-calculator>

[www.careersportal.ie](http://www.careersportal.ie)

[www.qualifax.ie](http://www.qualifax.ie)

<https://switcher.ie/gas-electricity/>

<https://www.bonkers.ie/compare-gas-electricity-prices/>

<https://consumption.selectra.co.uk/>

<https://www.ccpc.ie/consumers/about/financial-education/leaving-cert-applied/>

<https://spunout.ie/life/money/how-to-create-a-budget>





**info@pdst.ie | pdst.ie**  



**An Roinn Oideachais**  
Department of Education



Dublin West Education Centre  
Ionad Oideachais Bhaile Atha Cliath Thiar

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