

CURRICULUM, PEDAGOGY AND BEYOND



THE MATHEMATICAL
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MAV24
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Building Thinking Classrooms: What I wish I knew earlier



Event App



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A02 - (Year 1 to Year 6) Supporting High Potential and Gifted Learners in Mathematics

Pedagogy

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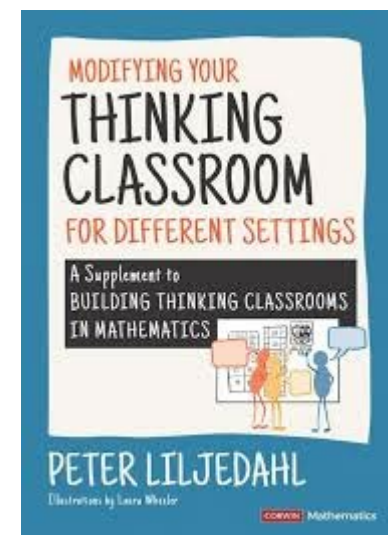
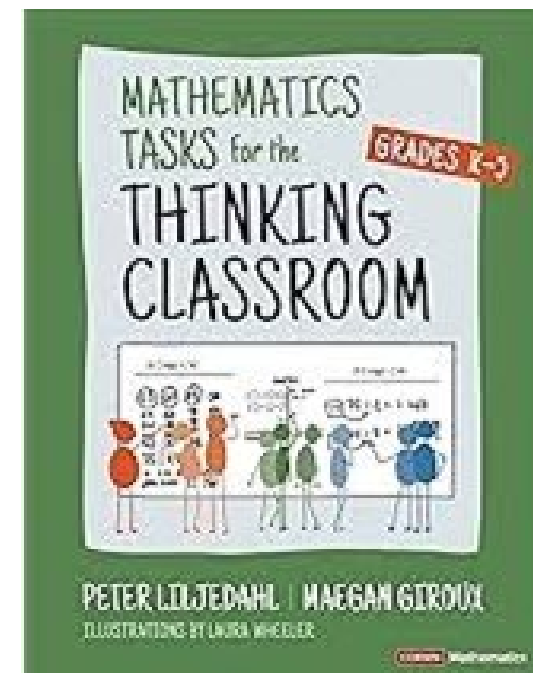
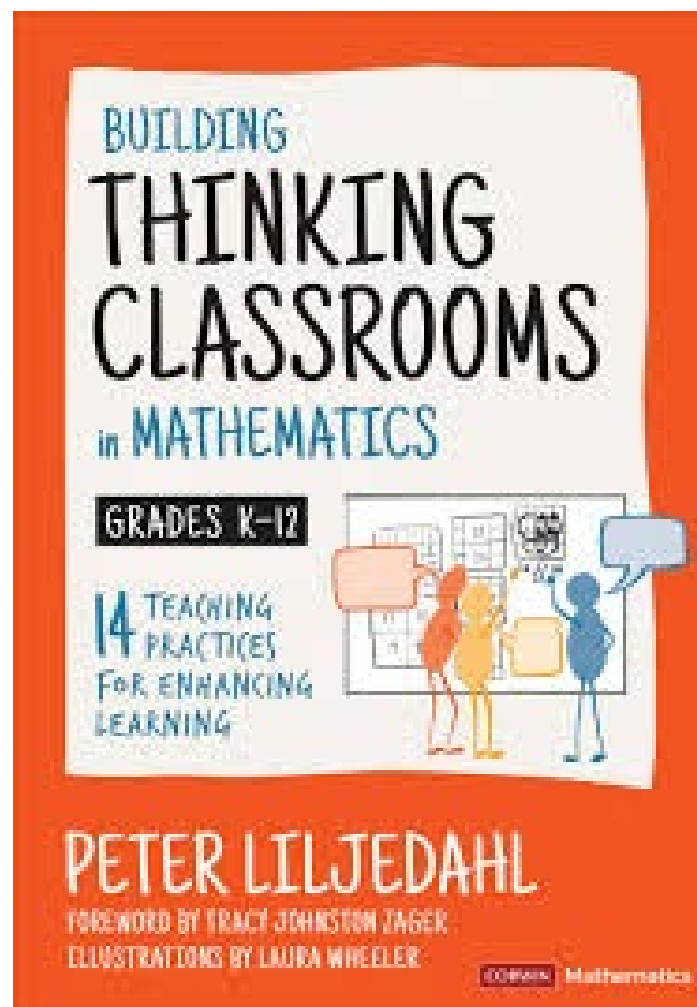
Speaker



Dr Chrissy Monteleone
ACU

SESSION OVERVIEW

- ❑ BTC overview and the 4 toolkits
- ❑ The importance of class culture
- ❑ Sourcing tasks
- ❑ Learning from experience





Who we are

Lorna McClory

LS Numeracy
Bacchus Marsh College,
Bacchus Marsh

MAV Consultant

Penne Grant

Former LS Numeracy
Mount Rowan Secondary
College, Ballarat



Our BTC Journey

- Started in 2021, dabbling in the first and second toolkits
- MAV presentation with Peter 2021
- 2022 continued working on introducing toolkits 1-3 in our classes. Slowly introduced to a small number of staff
- 2023 - more staff joined our journey and used BTC as one of their pedagogical strategies. Fully implemented in our junior classes. Started in VCE classes
- 2024 - kept building. LOTS of PD and learning.

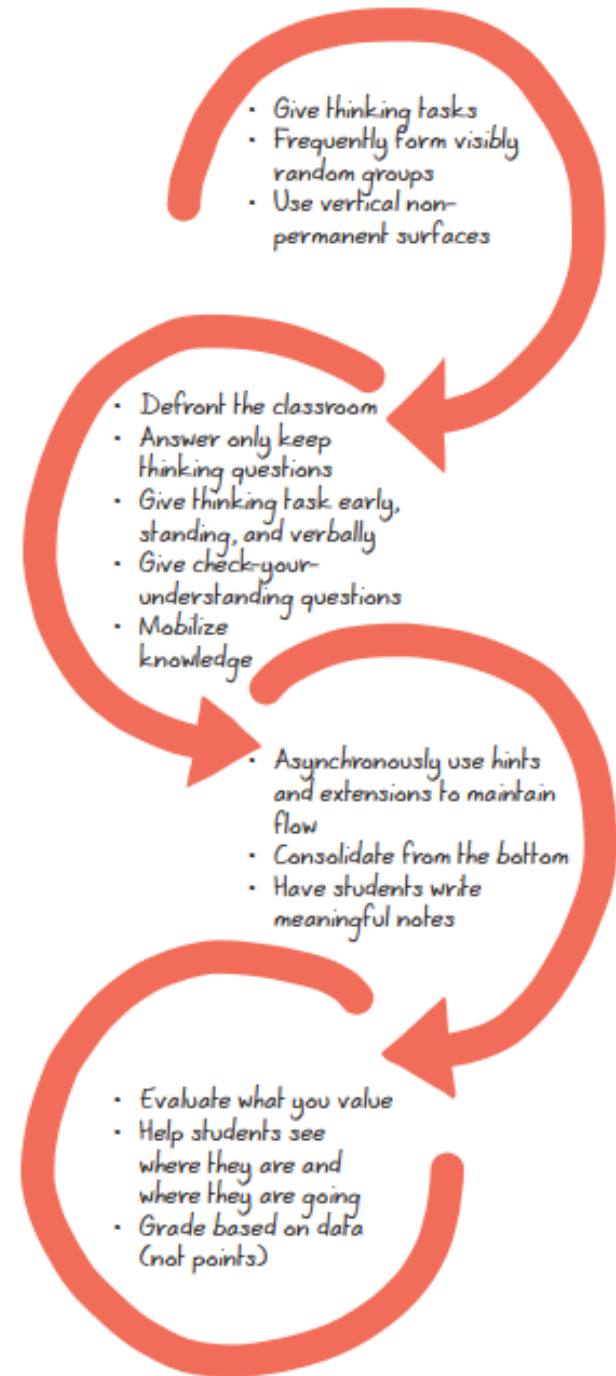
BTC Overview

- 14 practices based on 15 years of research by Dr Peter Liljedahl.
- Trying to answer the question “How do we get students to think?”

1. What types of tasks we use
2. How we form collaborative groups
3. Where students work
4. How we arrange the furniture
5. How we answer questions
6. When, where, and how tasks are given
7. What Homework looks like
8. How we foster student autonomy
9. How we use hints & extensions
10. How we consolidate a lesson
11. How students take notes
12. How we choose to evaluate
13. How we use formative assessment
14. How we grade

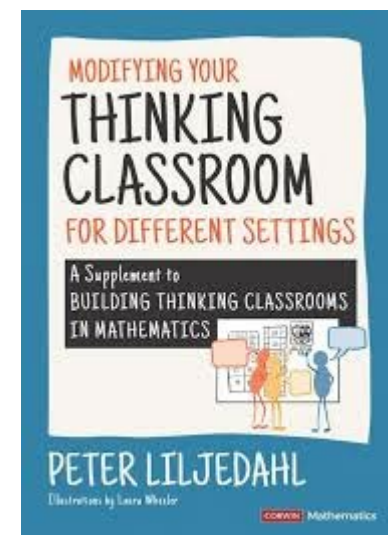
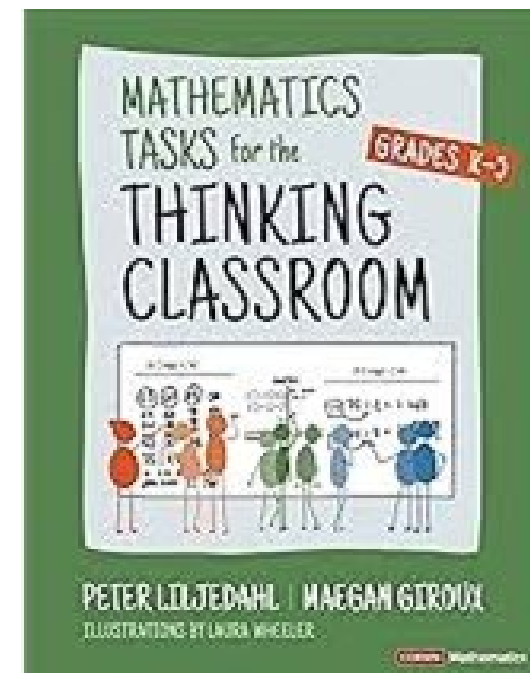
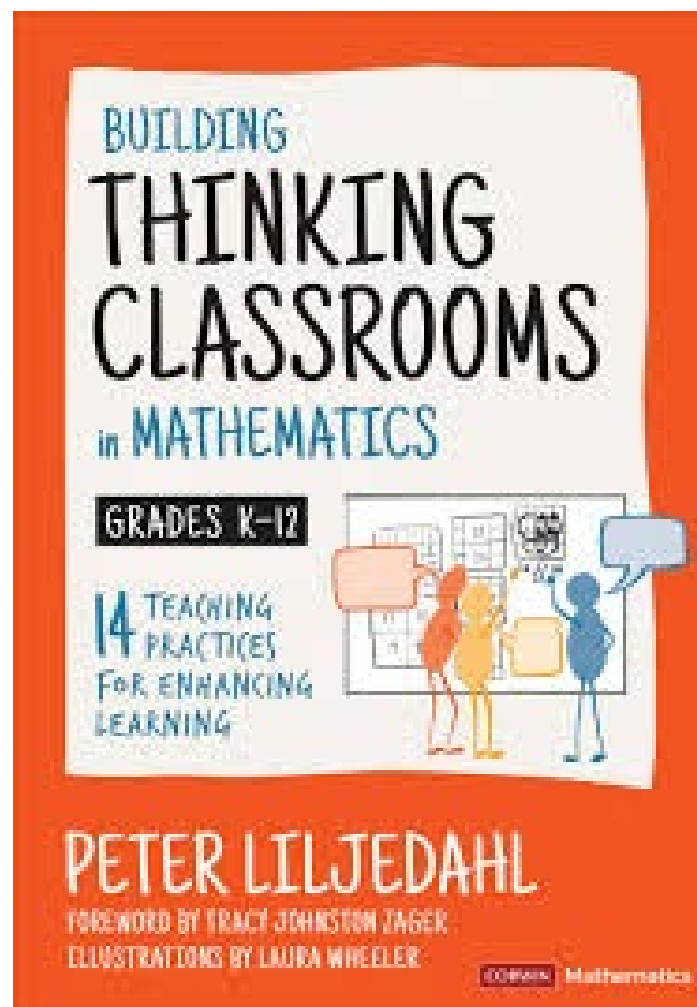
The Four Toolkits

- Designed to give a roadmap for implementing the 14 practices



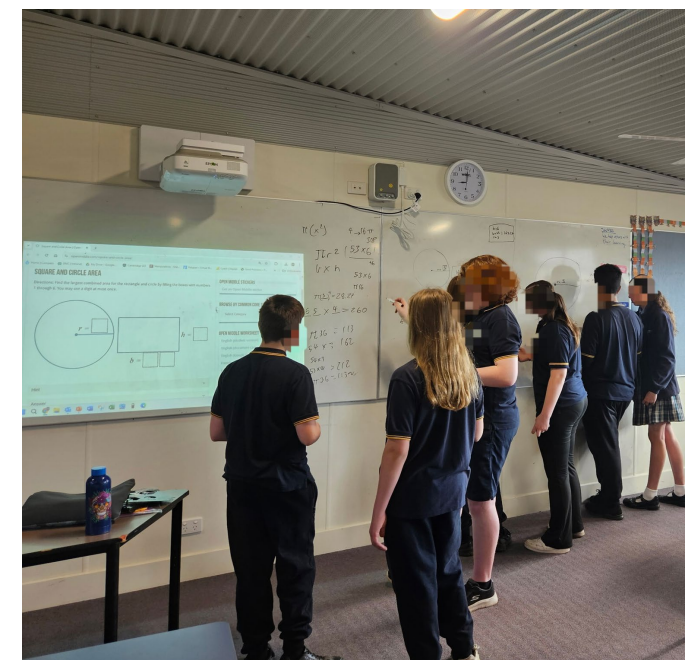
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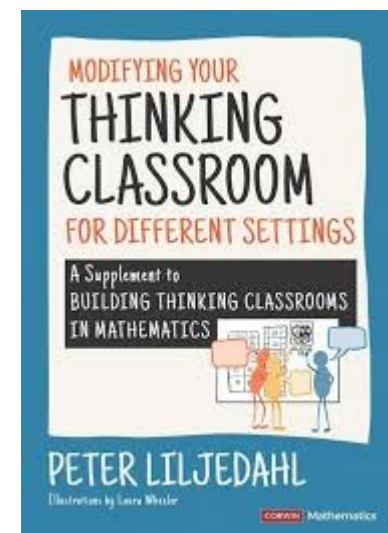
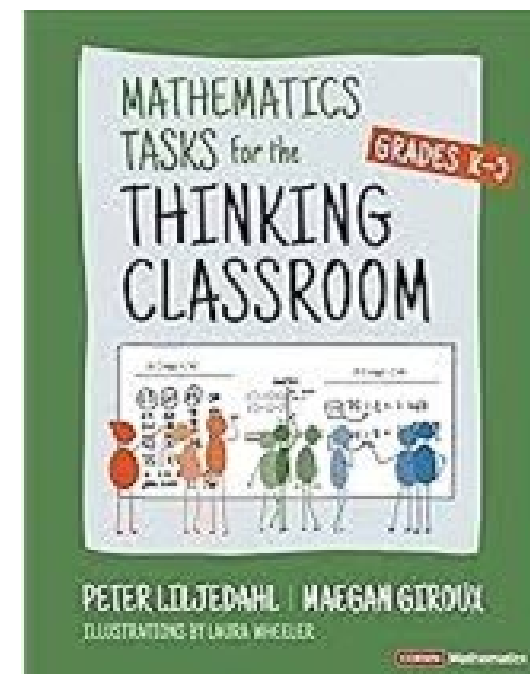
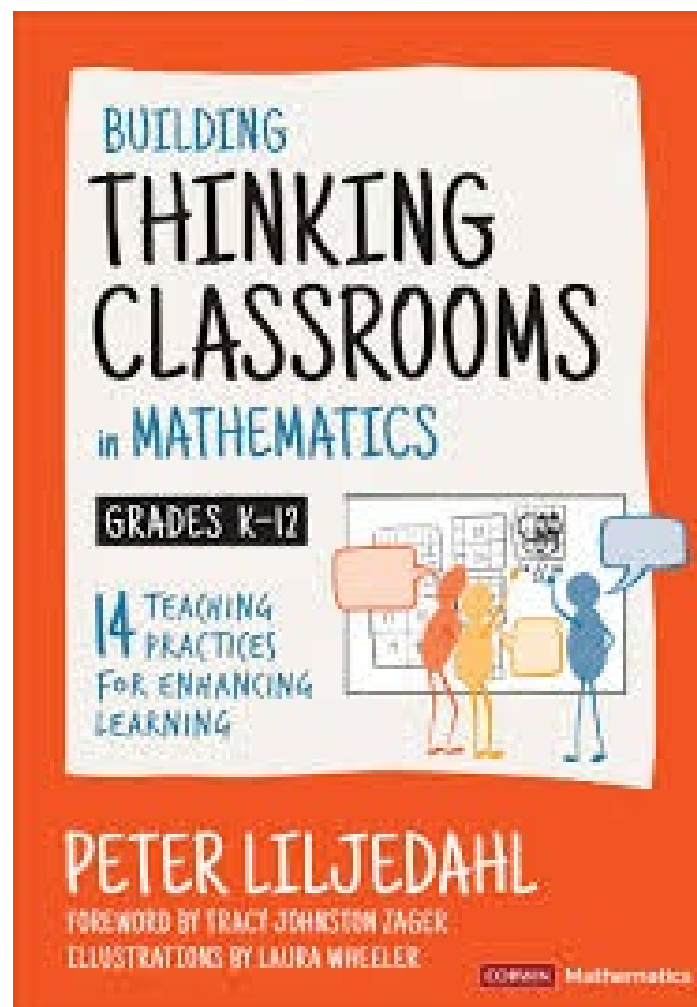
Building Classroom culture and routines

- Growth Mindset
- Overcoming Maths Anxiety
- Developing Peer Relationships
- Looking after Resources



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You try: The Answers Are.....

- Using each of the four operations once, and one operation twice, create 5 equations that have the answers provided.

QUESTION that is currently being answered	
Q1	Q2
Q3	Q4

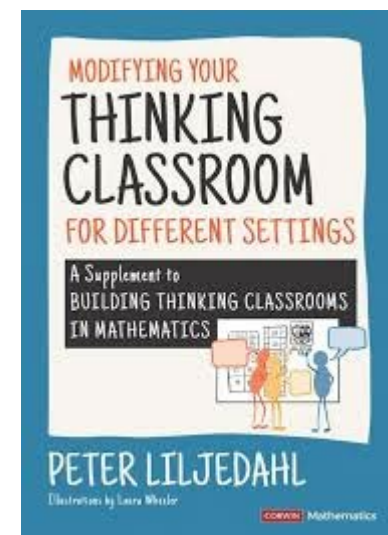
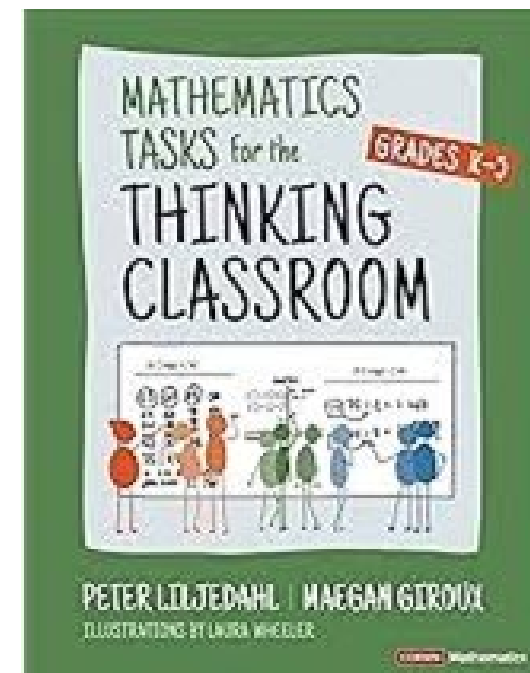
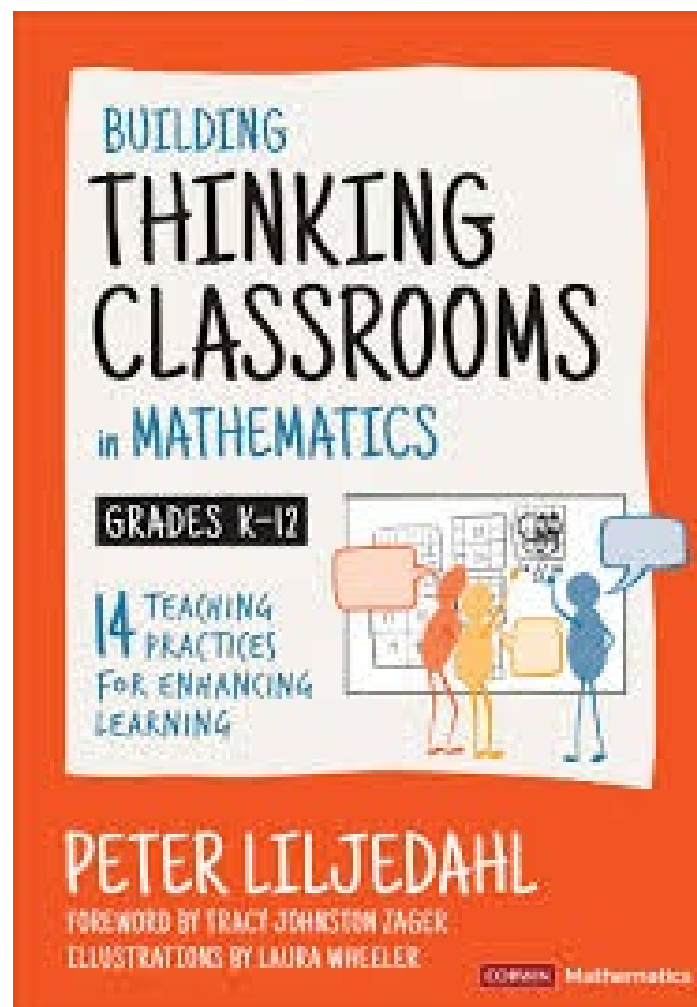


Sourcing Tasks

- The type of tasks
- Where we source ‘thick’ tasks
- Where we source ‘thin’ tasks

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Learning from experience

- This takes time to develop
 - Spend time building classroom culture
 - Non curricular tasks are powerful
 - Don't try to do everything at once
 - $\frac{1}{3}$ of lesson should be on consolidation tasks

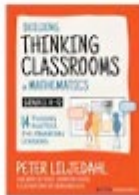


Work in progress

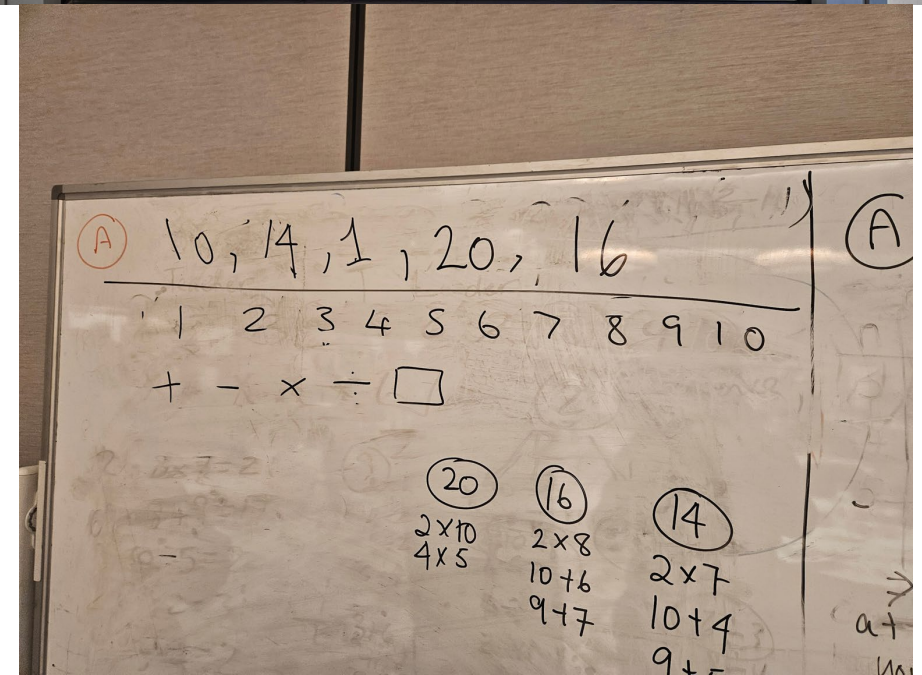
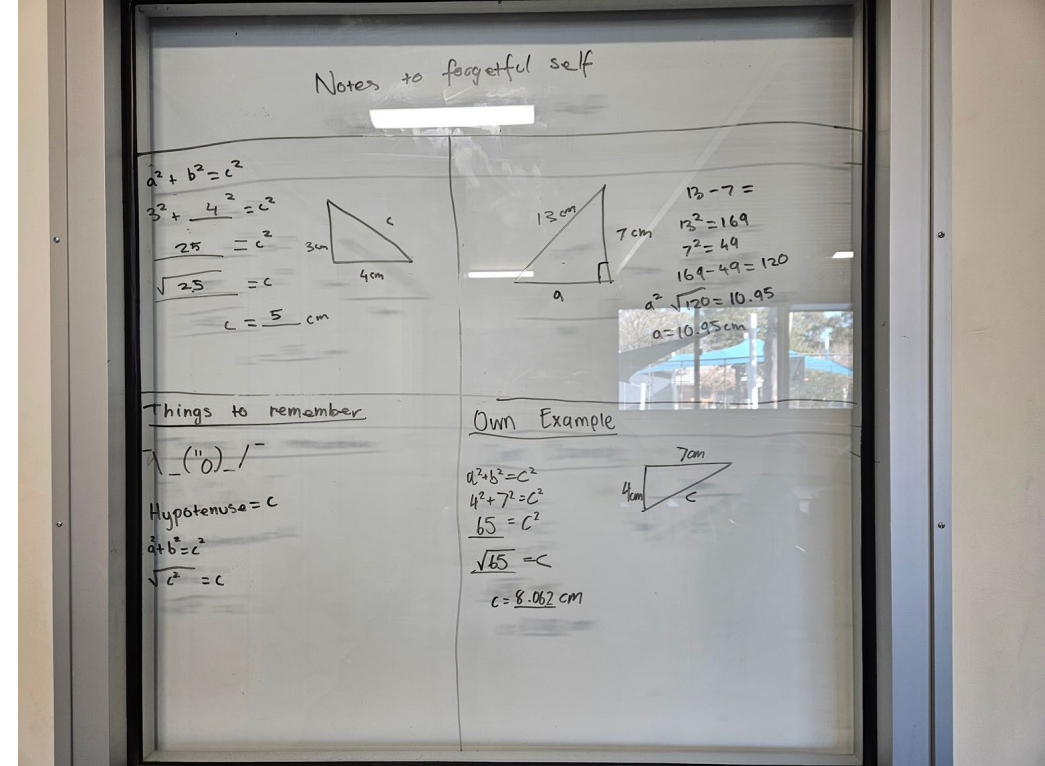
- Banner method
- Consolidation - getting better
- Grading BTC style

BTC Automated Grading Rubric

Record student data
on your phone or tablet!

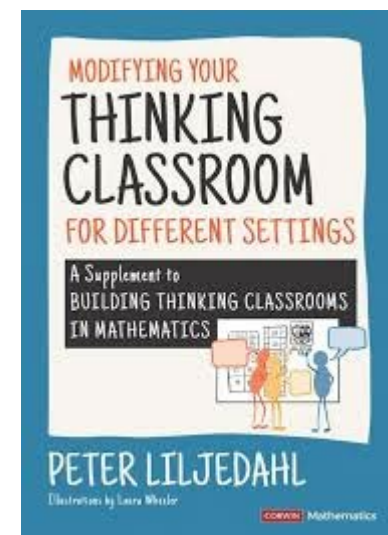
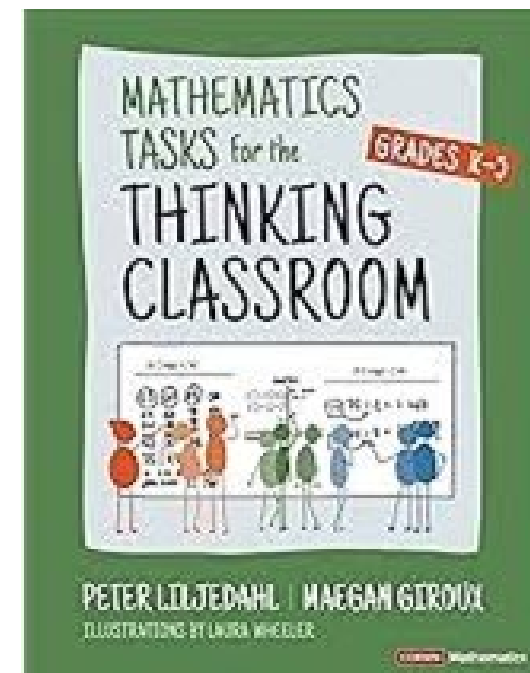
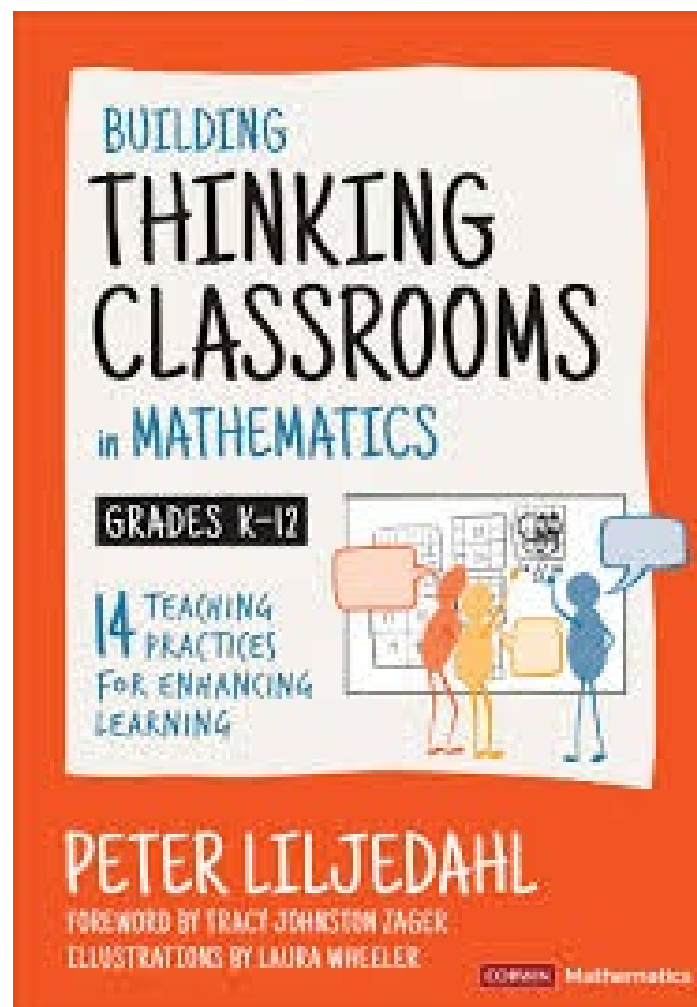


<https://www.youtube.com/watch?v=kRwJsArgtJ0>



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Questions??



RESOURCES



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