

# Engagement and Achievement through Computational Thinking (ENACT) Summer Institute: Day 3

# Goals for day 3

- Utilize computational thinking (CT) strategies and student-focused practices to plan and present a microteaching lesson.
- Increase teachers' capacity to integrate CT strategies and student-focused practices into their mathematics instruction.
- Supporting teachers in brainstorming and planning their first CT-integrated lessons.

# Agenda for today

- Warm-up activity
- Microteaching
- Planning time
- Closing

# Warm-up activity

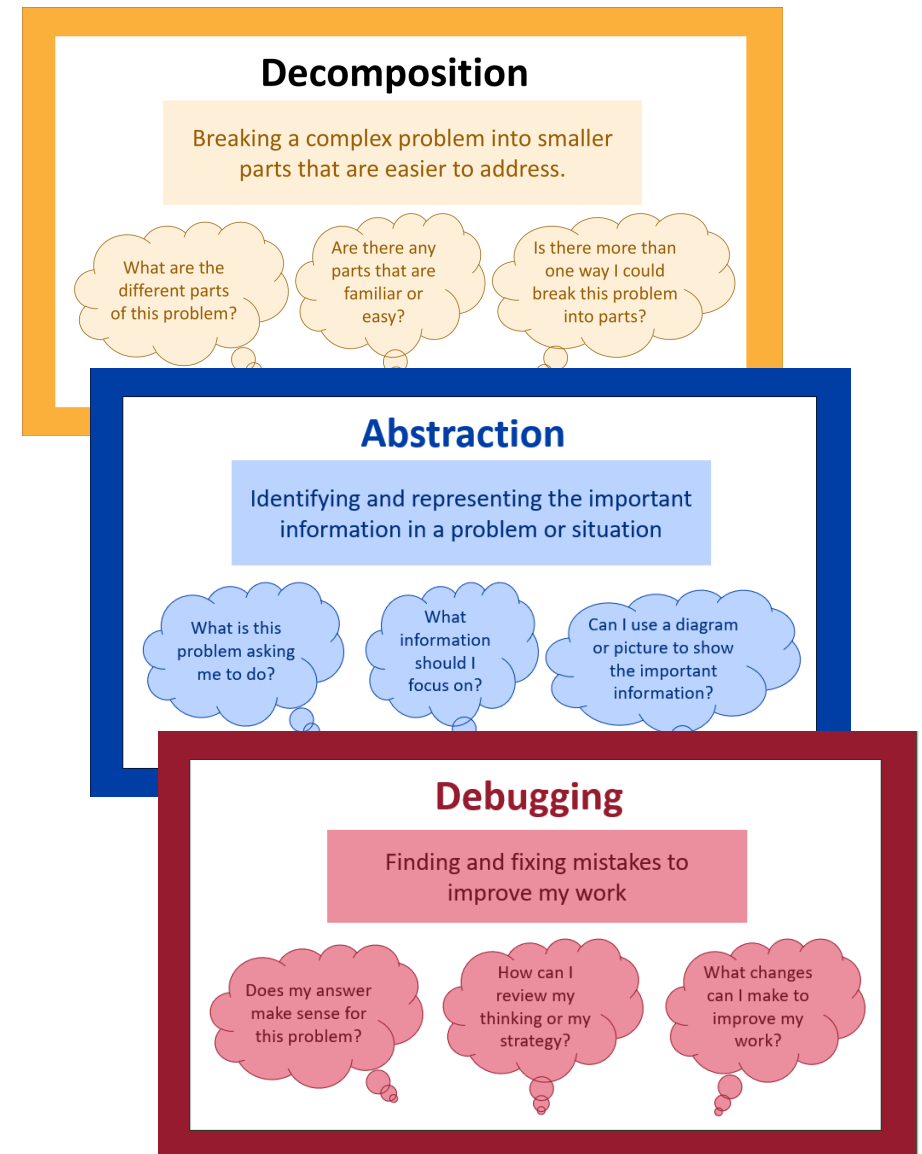
# CT and classroom routines

How can you connect CT to some of the **classroom routines** you use during your math teaching?

Routines could include the following:

- Something you do each lesson, such as start by connecting to prior learning.
- Familiar questions or teaching moves you use in the moment, such as Think-Pair-Share or asking, “What do you notice?”

Add your classroom routines sticky notes.



# Classroom routines

Classroom routines become familiar to students and can offer an entry point into mathematical thinking or discussions.

Choose one of the routines on the sticky notes and consider these questions:

- How can you connect CT to this routine?
- How might integrating CT into the routine help students to become more familiar and comfortable with CT?

Share your thinking with a partner.



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# Microteaching

# Please follow the link below...

*(SI facilitator: Enter described link here)*

- This link will take you to a PowerPoint template that we will use for the next few hours.
- Each participant should have the link open on their own computer.
- Save a copy of the presentation in the current drive (default is to save to your drive; please make sure you are saving it to the right place).

# Microteaching

## Process overview:

- Collaborate with your peers to develop a micro-lesson plan.
- Microteach a part of your lesson while your coach and peers pose as students.
- When you finish, share your initial thoughts.
- Finally, your coach and peers will provide feedback.

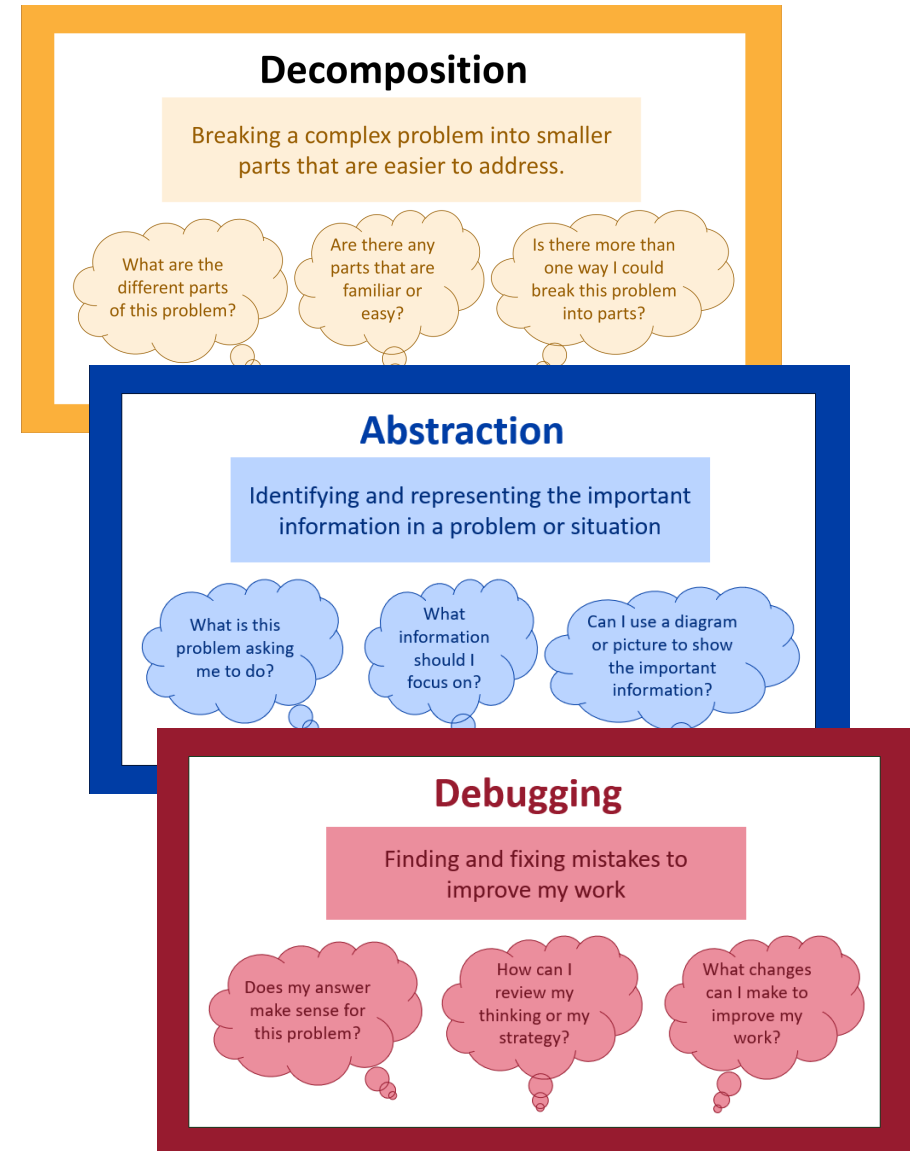


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# Microteaching

Small group steps:

1. Find the poster with the CT strategy that you think you either might like to try teaching first or one that you think might be more challenging for you.
2. Move to that table. If more than four people are at the table of your choice, then please move to a less populated table.
3. Affix the colored dot at your table to your name tag.



# Developing lesson plans

# Microteaching

Small group steps:

- Work with your peers to **develop a mini-lesson plan** using the template and PowerPoint that **introduces** the CT strategy to your students.
  - Each participant at the table can have a different way of introducing or your group can come to consensus about the lesson.
  - Be sure that all voices at the table are heard and incorporated!
  - You will eventually individually implement your mini-lesson plan.



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*You will have 50 minutes to plan your individual or group lessons.*

# While you are developing your introduction...

- Try to incorporate both introducing or explaining (talking *to* students) and asking questions and replying (talking *with* students).
- Think about ways to incorporate students' experiences and connections to material already learned.



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# Time to teach!

# Microteaching

Small group steps, continued:

1. Go to the table color that corresponds with the colored dot on your name tag.
2. Take turns presenting your lesson plan to your group (eight minutes to present each)
  - If you are not presenting, you are a middle school aged student. Own it! Be a student! What will be clear to them? What might be confusing?
  - Draw on the student profiles to help you take on a student persona.
3. Participants provide feedback to the presenter (two minutes for feedback).
  - How clearly the teacher modeled and talked about the CT strategy.
  - How the teacher incorporated student focused practices into the lesson.



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# Have fun!



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# Share out

# Group debrief

- How did you feel as you practiced modeling a CT strategy?
- What went well?
- What was challenging?
- What questions do you have for your coaches or peers?
- What will you do to continue to prepare?



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# Planning time

# Group discussion



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- How are you planning to introduce CT strategies into your classroom?
- What strategies are you going to use to include student-focused practices?
- What questions or ideas do you have to share with the group?

# Planning your first five (or more!) CT-integrated lessons

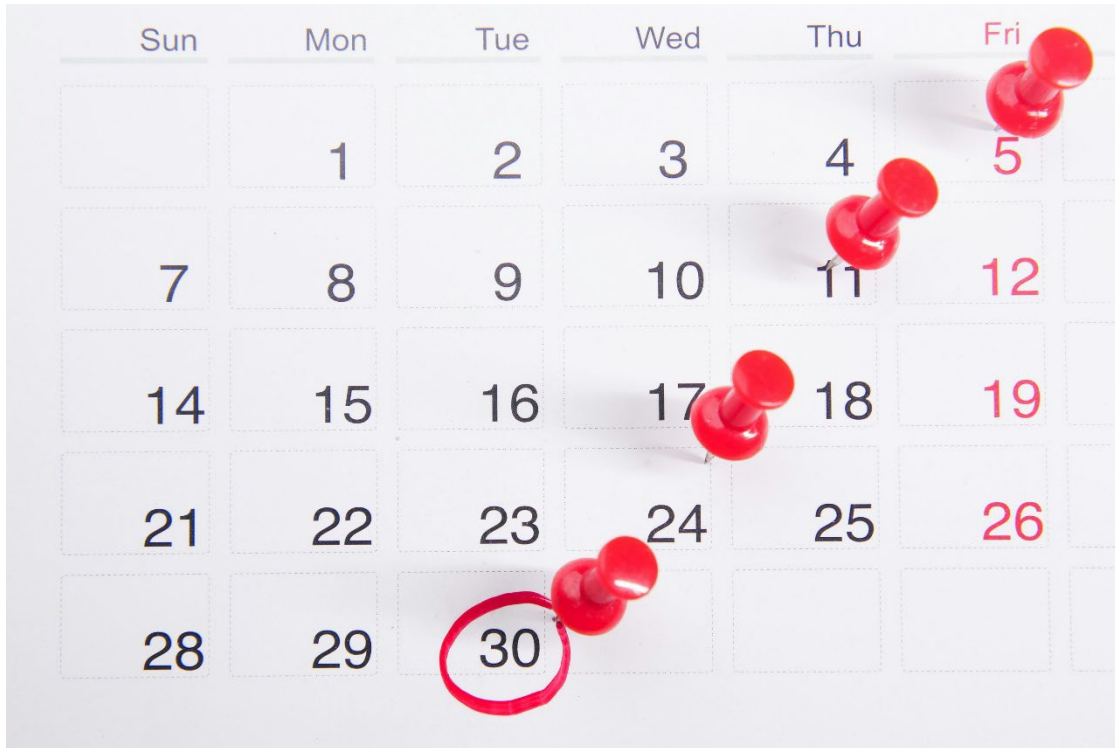


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- Which CT strategies do you feel most comfortable with? Which do you feel least comfortable with?
- Choose which strategies you'd like us to support you with during coaching session 1.

# Planning your first CT-integrated lessons

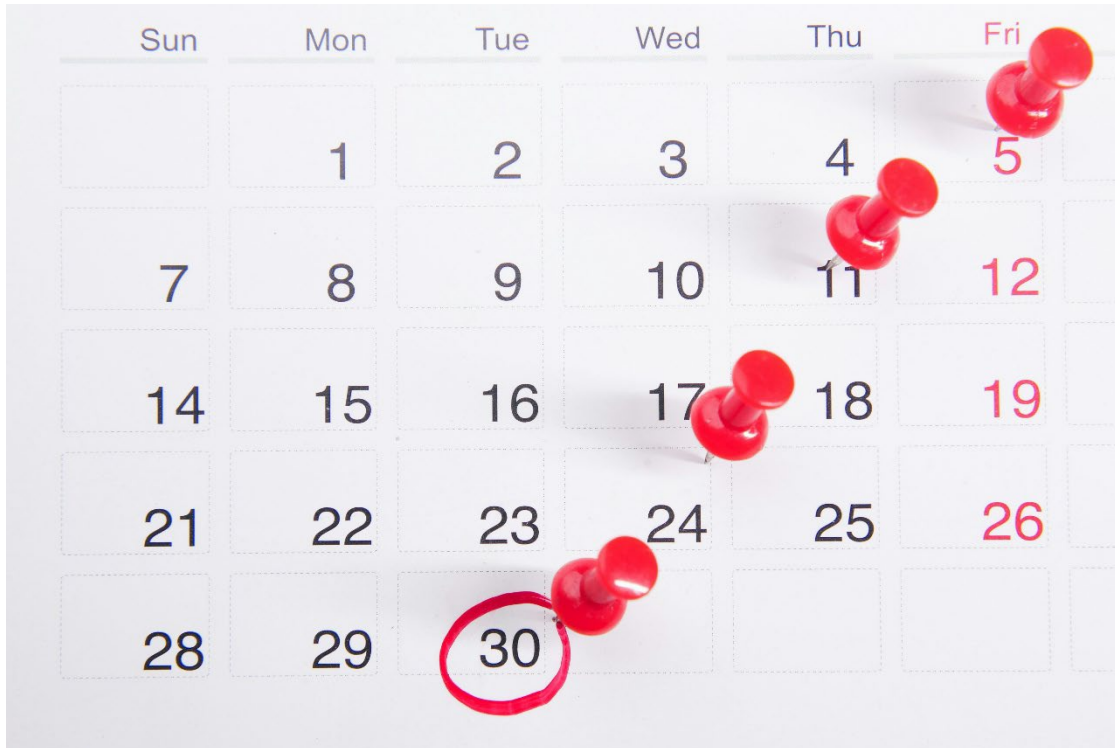


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- Plan when you'll introduce each CT strategy.
- Keep thinking through the details and preparation you need to do for each lesson.

# Closing

# Questions

What lingering questions do you have?



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