

# THE TEACHING AND LEARNING CYCLE

(adapted from Rothery, 1995)

**Presentation for English Learner Portal**

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THINK OF ONE  
STUDENT WHO IS  
STUGGLING WITH  
WRITING





## Teaching and Learning Cycle is

- a pedagogy of apprenticeship, based on sociocultural theory of learning (with others before on your own)
- integrates reading, writing, and speaking (not reading block separate from writing block)
- puts disciplinary learning at the center of the instructional design
- goal of language development is not language itself but disciplinary learning
- makes language visible by teaching it explicitly versus assuming children will pick it up “like sponges”
- it always considers the whole text and moves language from teaching it at a sentence level to teaching language at a genre level by asking a question “What is the purpose for writing this” and “What language choices do I need to make here to meet the purpose?”



# Planning with the End in Mind



Teacher considers students needs, review standards and chooses a genre focus from the standards.

# Stage 1 Examples in Science and Math

**Grade:** 4

**Content area:** science

**Unit:** Energy and Motion

**Essential Question:**

How does electricity work?

**Learning Genres:** Procedures,  
Recounts, Explanations

**Summative Genre:** Causal  
Explanation

**Grade:** 3

**Content area:** Math

**Math Practice 1:** Make sense of  
problems and persevere in solving  
them.

**Question:** Explain how you got  
your answer.

**Summative Genre:** Procedural  
Recount

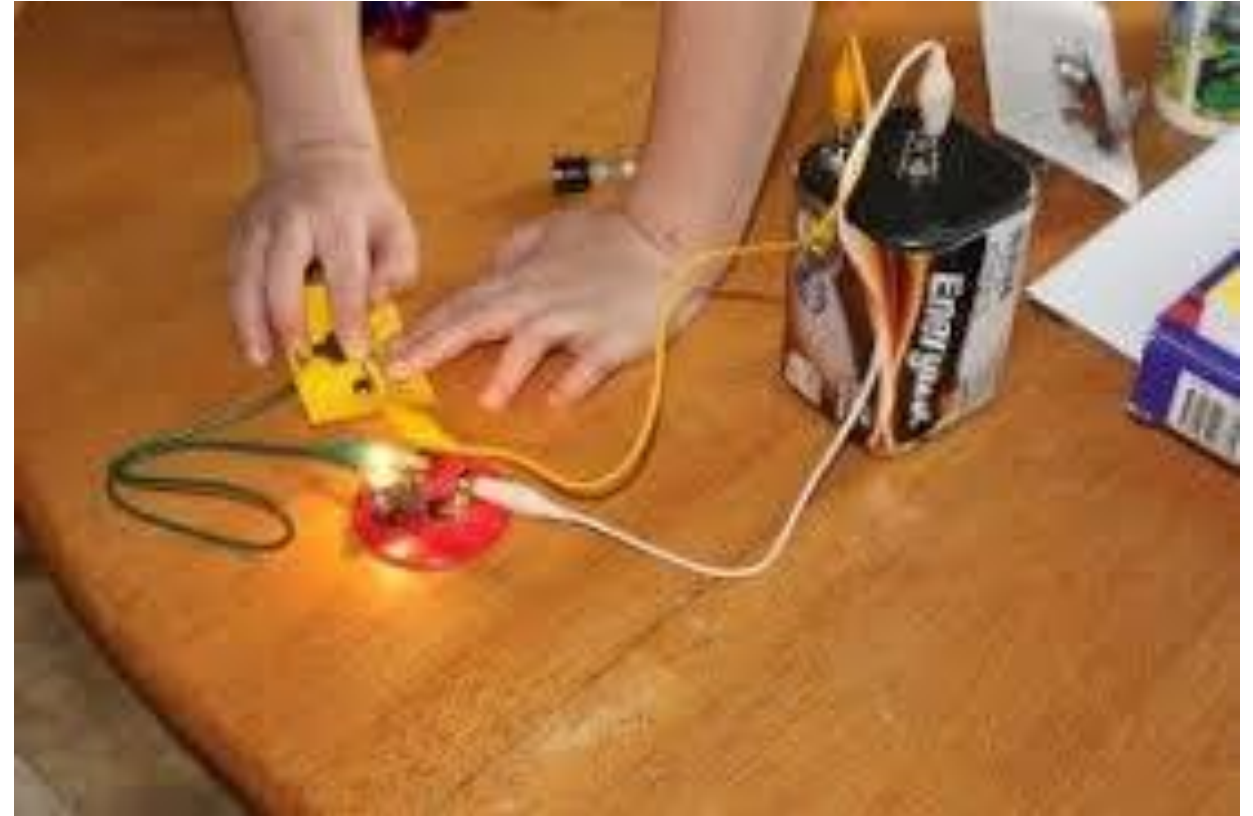
# Building Knowledge



Teacher designs activities to build knowledge on a topic through reading, talking, research, experiences, videos.

# Stage 2: Experiences and Experiments

- Hands on learning
- Read and research
- Learning through talking
- Recording observations
- Taking notes in science journals





# De-Construction



Teacher guides students in reading as a writer to learn about the language of the text.



## **Recount: How I Made an Electric Circuit**

First **I** collected the materials: a copper wire, an LED light, scotch tape, and two small button batteries. Then **I** put the two button batteries together (facing the same direction so that + on one battery is touching the – on the other). **I** taped two pieces of wire onto the batteries, one on the top and one on the bottom. **That's how I made my electric circuit.**

## **Explanation: How Electricity Works**

**Electricity** requires a path to flow through. For electricity to work, **it** needs an energy source such as a battery. **It** also needs a conductor, a special wire that carries energy from one end of the source. Then **it** connects back to the source at the other end. **It** creates a closed circuit for electricity to flow through. **That's how electricity works.**

# MAKING LANGUAGE VISIBLE IN MATH

The third graders are selling raffle tickets. Briana has sold 87 tickets. Matt has sold 52 tickets. How many more raffle tickets has Briana sold than Matt?

Equations:  $52 + T = 87$  or  $87 - 52 = T$

Estimate:  $90 - 50 = 40$  About 40 more tickets

Procedural Recount (Type of Explanation):

$3 + 10 + 10 + 10 + 2 = 35$  tickets

Briana sold 35 more tickets than Matt. I found the difference by counting up on the number line. I started at 52 and added 3 to get to 55. Then, I added 10, 3 times to get to 85. Next, I added 2 because that's how far I was from 87. Lastly, I added all the #'s that I jumped to find that 35 is the difference. My answer is reasonable because my actual answer is only 5 away from my estimation.

Stages of the Procedural Recount	Teacher Written Mentor Text: Procedural Recount in Math <b>EXPLAIN YOUR ANSWER</b>
Answer/Result	$3 + 10 + 10 + 10 + 2 = 35$ tickets. Briana sold 35 more tickets than Matt.
Record of events: methods or strategies used to solve.	I found the difference by counting up on the number line. I started at 52 and added 3 to get to 55. Then, I added 10, 3 times to get to 85. Next, I added 2 because that's how far I was from 87. Lastly, I added all the #'s that I jumped to find that 35 is the difference.
Evaluation: assess the outcome. Is your answer reasonable?	My answer is reasonable because my actual answer is only 5 away from my estimation.

# Joint Construction



Key Idea:

*“The best scaffolding of writing is the conversations teacher has with students about how language works in texts”*

*JC: “Guided conversations in the context of shared experience”*

Teacher and students jointly write text together as a class. They discuss how language creates meaning.



# Independent Writing



Students write independently.  
Teacher provides support as needed.

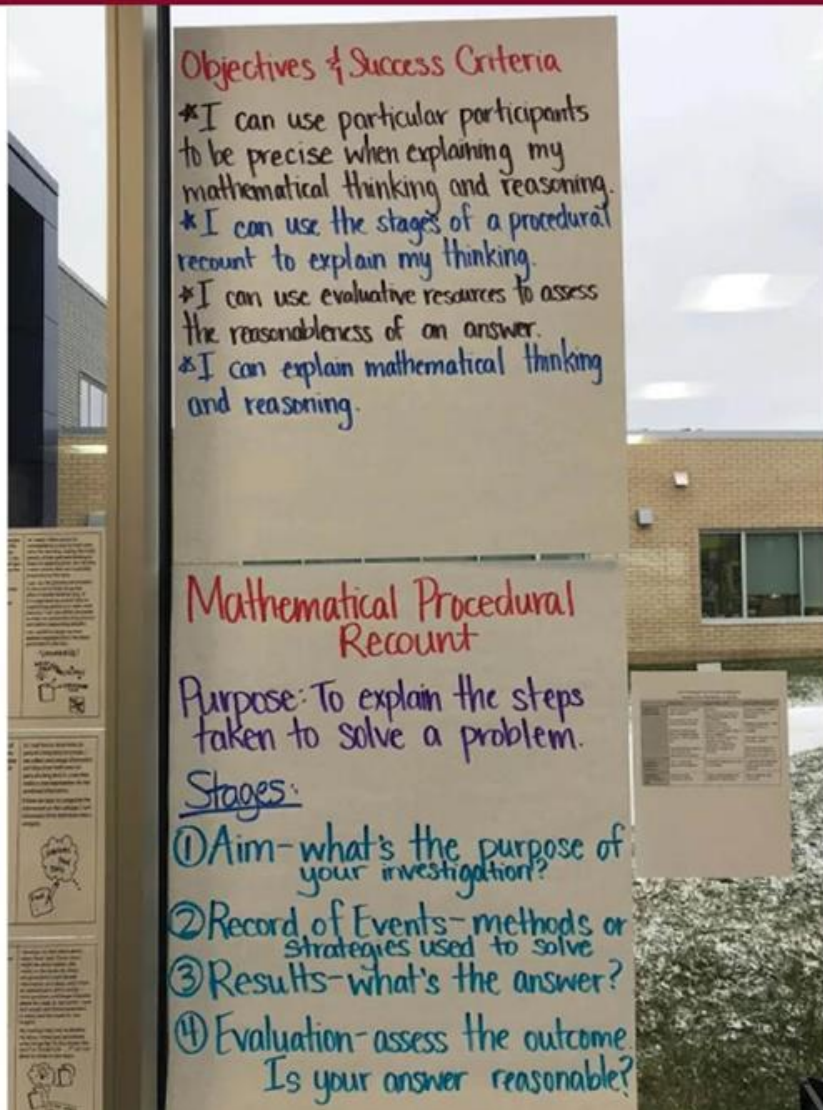


# Review and Assess



Teacher reviews student work (together with students) and determines future areas to address.

# STEPS FOR MAKING LANGUAGE VISIBLE IN MATH



- 1 Show mentor text: a procedural recount of a subtraction story problem.
- 2 Analyze stages of procedural recount.
- 3 Post and discuss the learning objectives and success criteria.
- 4 Provide students with personal anchor chart.
- 5 Complete joint construction for explaining mathematical thinking and reasoning.
- 6 Formatively assess their procedural recounts in their math journals as they work independently and coach in when necessary.



# Characteristics of Effective Writing Pedagogy

- Learning how to write is learning how to use LANGUAGE, therefore, teachers need to become **observers of language** and how language works in different contexts
- As adults, **we learn new genres throughout our lives** and we benefit from models (e.g., dissertation, grants, memoir, reflection papers). Students need to study models of texts in various disciplines (beyond mentor texts in ELA)
- Writing is **learned best through an apprenticeship** of teachers and students working together studying language in context





# RESOURCES

