

The ACES Learning Cycle

Teacher Implementation Guide

A Practical Framework to Boost Student Engagement, Achievement, and Accountability

The ACES Learning Cycle (Acquire – Contribute – Exchange – Strengthen) is more than a discussion strategy—it is a classroom culture. Every lesson should move students from **learning independently** to **thinking collaboratively**, **sharing responsibly**, and **applying meaningfully**.

The teacher's role shifts from being the primary source of information to becoming the facilitator of learning.

- Make a copy of the poster below for each community or each student.



Before Every Lesson Ask Yourself

Did my lesson allow students to...

- ✓ Acquire new learning?
- ✓ Contribute their thinking?
- ✓ Exchange ideas with others?
- ✓ Strengthen their understanding through application?

If the answer is yes to all four, students are doing the cognitive work—not just the teacher.

PHASE 1: ACQUIRE

"I Wonder..."

Purpose: Students gather information, make observations, activate prior knowledge, and generate curiosity.

Teacher Role: Guide students to notice before telling.

Student Role: Observe, question, and think.

Teacher Moves:

Instead of saying...

"Today we're learning about ecosystems."

Try...

"Look at these two pictures. What do you notice? What do you wonder?"

Instead of explaining first...

Ask students to investigate first.

Immediate Strategies

Notice and Wonder

Display: a picture, graph, quote, video clip, artifact, problem

Students write:

I Notice...

I Wonder...

(2 minutes)

Think Time: Always give 30-60 seconds before calling on anyone.

Knowledge Wall

Students place sticky notes under: "I Wonder..." Refer back during the lesson.

= KNOWLEDGE WALL =			
= ♥ Building knowledge together, every day! ☆ =			
QUESTIONS  What are we wondering? 	DISCOVERIES  What have we learned? 	RESOURCES  Helpful materials and ideas 	REFLECTIONS  What changed in our thinking? 
♥ We ask. We learn. We share. We grow. ♥			

Accountability

Every student records at least:

✓ One observation

✓ One question

before instruction continues.

PHASE 2: CONTRIBUTE

"I Think..."

Purpose: Students process information by making meaning.

Teacher Role

Ask more.

Tell less.

Teacher Prompts

What makes you think that?

Can you explain your reasoning?

What evidence supports your idea?

What connections do you see?

Can you build on that idea?

Immediate Strategies

Think-Write-Share

Students

Think (30 sec)

Write (1 min)

Share (2 min)

Writing first increases participation.

Sentence Starters

Provide:

I think...

I believe...

One example is...

I noticed...

This reminds me of...

I predict...

Supports reluctant learners.

Everyone Responds

Use: whiteboards, sticky notes, digital polls, or hand signals

Instead of only calling on volunteers, every student participates.

Accountability

Every student contributes one idea before group discussion.

No "pass."

PHASE 3: EXCHANGE

"I Connect..."

Purpose: Students deepen understanding by listening, questioning, and refining ideas.

This is where real learning happens.

Teacher Role

Facilitate discussion—not dominate it.

Students should speak more than the teacher.

Teacher Prompts

Who agrees?

Who sees it differently?

Can someone build on that?

Can anyone challenge this respectfully?

What perspective haven't we heard?

Immediate Strategies

Gallery Walk

Groups post responses.

Students rotate.

Add

Questions

Connections

Suggestions

Three Before Me

Before asking the teacher, students ask three classmates.

Promotes independence.

Round Robin

Each student shares one idea.

No interruptions.

Everyone has a voice.

Discussion Roles

Assign

Facilitator

Recorder

Questioner

Summarizer

Keeps everyone accountable.

Accountability

Every student must ask one question

OR

Respond to one peer.

PHASE 4: STRENGTHEN

"I Grow..."

Purpose: Students apply learning independently.

Reflection turns learning into ownership.

Teacher Role

Help students answer:

"So what?"

"Now what?"

Immediate Strategies

Exit Ticket

Today I learned...

I still wonder...

Tomorrow I will...

One Minute Reflection

My thinking changed because...

The most important idea today was...

One thing I can apply is...

Real-World Challenge

Ask:

Where could you use this outside school? Why does this matter?

Application increases retention.

Accountability

Students identify one success, one next step before leaving class.

Daily ACES Lesson Structure

Lesson Stage	Time (Be flexible)	Teacher Action	Student Action
Acquire	5-10 min	Spark curiosity	Observe and question
Contribute	10-15 min	Facilitate thinking	Explain ideas
Exchange	10-15 min	Guide discussion	Listen, connect, respond
Strengthen	5-10 min	Reflect and apply	Demonstrate learning

Classroom Non-Negotiables

Every lesson should include:

✓ Think Time before answering

✓ Student talk

✓ Writing

✓ Collaboration

✓ Reflection

If one is missing, engagement decreases.

Teacher Talk vs Student Talk

Instead of...

"I'll explain."

Say...

"What do you notice?"

Instead of...

"Here's the answer."

Say...

"What evidence supports your thinking?"

Instead of...

"Does everyone understand?"

Say...

"Turn and explain it to your partner."

Instead of...

"Any questions?"

Say...

"What questions do you still have?"

Weekly ACES Reflection for Teachers

At the end of the week, reflect on the following:

Reflection Question	Yes	Not Yet
Did students generate questions before instruction?	☐	☐
Did every student contribute at least once?	☐	☐
Did students learn from one another?	☐	☐
Did students apply or reflect on their learning?	☐	☐
Was student talk greater than teacher talk?	☐	☐

The ACES Teacher Mindset

The ACES Learning Cycle is successful when students move from passive recipients of information to active owners of their learning. Each phase builds on the previous one: students first **Acquire** new ideas, then **Contribute** their thinking, **Exchange** perspectives with others, and finally **Strengthen** understanding through reflection and application.

When used consistently, ACES creates classrooms where **every student has a voice, every learner is accountable, and every lesson ends with evidence of growth**. Rather than asking, *"Did I teach it?"* teachers begin asking, *"Did students think, share, connect, and grow?"* That shift transforms engagement into achievement and responsibility into ownership.

Make Copies

- ─ Make copies of the cards for each community.
- ─ The knowledge wall could be a poster for the entire class.
- ─ Use the tools to fit the vision and the culture of the class.