

Muddiest Point Activity: College Algebra

Topic: Quadratic Functions and Their Graphs

Purpose: Identify and address areas of confusion from the assigned reading.

Activity Steps

1. Opening (2–3 min): While demonstrating quadratic functions for students, pause and ask them to think about what is least clear to them on the topic. It can be one or more steps in your example, a definition, a concept, or anything else they find unclear.
2. Individual Reflection (2–3 min): Students silently jot their muddiest point on an index card, half-sheet, or sticky note. Prompts:
 - Identify a concept, example, or definition that was unclear.
 - Briefly note why it was confusing.
3. Collection (1–2 min): Instructor gathers responses or has students post sticky notes on the board/wall.
4. Sorting & Quick Scan (3–4 min): Instructor or TA quickly groups similar muddiest points (e.g., vertex form vs. standard, completing the square).
5. Instructor Debrief & Mini-Lesson (10–12 min): Instructor addresses the most common muddiest points first, using student language where possible, and demonstrates key examples.
6. Closing Reflection (2 min): Students write in their notes:
 - a. After this discussion, what is clearer now?
 - b. Is anything still confusing?"
7. Instructor collects or invites a few volunteers to share.

Materials Needed

- Index cards, half-sheets, or sticky notes for student responses
- Marker or board space for grouping categories (optional)

+ Benefits

- Low stakes: Students can remain anonymous, encouraging honest reporting of confusion.
- Real-time feedback: Instructor immediately targets the most pressing misunderstandings.