

Cue Card 1: Hook – Contracts You Didn't Read (5 mins)

Say:

- "You've all checked a box agreeing to Terms and Conditions—and skipped reading it. That's a contract."
- "CS uses contracts too. A function contract says: input, output, and purpose."

Quick Write: What's a contract in computer science? **Meta:** Students already intuit systems—they're just not used to formalizing them.

Cue Card 2: Primer – Known Functions (5 mins)

Model:

- `print()` → input: string → output: text
- `search("boba")`: input: string → output: location list

Ask: What's the contract for your PB&J or cypher activity? **Meta:** Abstraction begins with recognizing structure in actions.

Cue Card 3: Contract Hunt – Abstract Analysis (15 mins)

Directions:

- Underline input, circle output, bracket purpose.
- Fill out contract table in own words.

While Circulating, Ask:

- "Is that really the input—or just context?"
- "What does this system assume?"

Meta: All systems encode assumptions. Good design surfaces them.

Cue Card 4: Whole-Class Share + Pixel Example (8 mins)

Board Contract Example: Choose 1 abstract. Build contract live.

- Invite revisions. Prompt: "Does this work for everyone?"

Anchor Example – MTA + Google Pixel:

- Sensors detect vibration → ML flags defects → Alert
- Limitations: sensor access, signal quality, human response

Bridge Line: "What problems could we solve, if we had the right data?"

Cue Card 5: Invent-a-Tool Design (7 mins)

Prompt:

- "Think of something broken around you—school, commute, systems."
- "Define the contract: Input / Output / Purpose / Risks"

Support Questions:

- What's the input? What could go wrong?
- Who benefits? Who's left out?

Meta: Not "make an app"—see the system, name the gap.

Cue Card 6: GPT + Exit Ticket (3–5 mins)

Say:

- "GPT can reflect what's been said—it can't sense your world."
- "You're learning to build the tools that don't exist yet."

Exit Prompt: Why do we define contracts before we code? **Meta:** Code without clarity is just noise. Contract is clarity.