

THE PHONE TEARDOWN

One idea must land: demand runs the chain backwards — what consumers want decides what businesses make, which decides what gets mined.

WE ARE LEARNING

What is actually inside a device, where those materials come from (several from WA), and how changing consumer tastes and preferences drive what businesses produce — and what gets mined.

CURRICULUM · VERBATIM

“How businesses respond to the changing tastes and preferences of consumers” — Revised WA Curriculum, Y7 Economics and Business (SCSA, implementation 2026).

SPARK THE AUTOPSY

- **Show:** the teardown image (this lesson's hero), projected large. **Say:** “This phone died so you could learn its secrets.”
- **Do:** every student locks a number — how many mined materials in one phone? — before the reveal: **40-plus minerals and metals** (the same number their Unit 1 Lesson 1 spark used; watch who remembers).
- **Land the unit question:** “How does something buried underground end up in your pocket? Five lessons from now, you'll own the whole answer.”

CORE THE FORENSIC TOUR

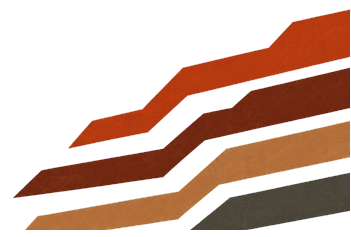
- **Do:** walk the components while students fill the forensic table — answer key over the page. Insist on the Unit 1 callback: they MAPPED these regions; now the regions are in their pocket.
- **Say:** “Your phone is Western Australia, folded up small.” Then pivot to the descriptor: “but who decided these exact materials? Not the miner. You did — the market did. Let's prove it.”

WORKSHOP THE MARKET SPEAKS

- **Run the survey:** one vote each — top priority in their next phone. Hands, sticky dots on the board, or a live Forms/poll if devices are out (fastest, and the tally chart appears free). Students record the class data in their table.
- **Teams interpret:** if this class were the world market — what gets mined more? Less? Push the mapping: battery-lovers are voting for lithium and nickel; camera and speed are voting for gold-plated circuitry and silicon; price-voters push manufacturers toward cheaper materials.
- **Deliverable:** the one-line mining forecast, written like an investor headline. Harvest three or four aloud — vote for the sharpest.

LAND IT EXIT TICKET

- Memory (part → material → region), the descriptor in their own voice, and the L2 seed: list the steps from rock to pocket. Keep these — next lesson opens by comparing their guessed chains to the real one.



FORENSIC ANSWER KEY

PART	MINED MATERIAL(S)	WA REGION (UNIT 1 MAP)
Battery	Lithium; nickel; graphite	Lithium — Greenbushes, South West · nickel — Goldfields (Kambalda)
Casing / frame	Aluminium — refined from bauxite	Darling Range
Circuit board	Gold contacts; copper wiring	Gold — Goldfields (Kalgoorlie) · copper — various
Screen glass	Silica sand, plus specialised minerals	Various
Chip	Silicon — from high-purity silica	Various

“Various” is the honest answer where WA isn’t the definitive source — model that honesty; it’s the program’s brand. The battery row is the star: it carries the lithium story.

PROBING QUESTIONS

- “Who decided lithium mattered — the miner, or you?”
- “If everyone kept their phone five years instead of two, what changes at the mine gate?”
- “What would make gold worthless? What would make it priceless?”
- “Your survey has 30 people. The real market has billions. What does that do to your forecast’s confidence?”

DISCUSSION MOVE — THE TWO-YEAR PHONE

Quick structured talk (60-second pairs, then harvest): “Phone companies release a new model every year. Whose interests does that serve — and who pays for it?” No settled answer; consumer power, business strategy and resource use collide. Leave it colliding.

DIFFERENTIATION

Support: the forensic table with the materials column pre-filled — students match regions only; survey vote needs no scaffold. **Extend:** the substitution question — if lithium doubled in price, what would phone-makers do? (Substitute chemistries, recycle, redesign — the market answers back.)

RUNNING SHORT — THE CUT LINE

Drop the discussion move and harvest fewer forecasts. Protect the survey, the interpretation, and the exit ticket’s L2 seed — next lesson opens with it.

MISCONCEPTIONS TO WATCH

“Phones are metal and plastic” (40-plus specific minerals) · “miners decide what to dig” (demand decides; miners respond) · “WA = iron ore only” (the battery boom rewrote that).