Youth E-Bike Safety Near Schools (Parking, Charging, Helmets)

FOR: School district, city DOT, fire dept • PARTNERS: PTA, local bike orgs, shop owners • SDGs: 3 • 11 • 10

One-sentence summary. Create designated e-bike parking/charging zones, require UL-certified systems and helmet/visibility education, and adopt safe charging/storage rules near schools—addressing rising micromobility injuries and battery risks while preserving equitable access.

Why it matters

CPSC reports micromobility injuries have surged, with children ≤14 comprising ~36% of cases (2017–2022). Safe infrastructure and rules—parking, charging, certification, and helmets—reduce risk. Fire departments advise outdoor charging where possible, and education on UL 2849/2271 certification and safe charging practices can prevent dangerous battery incidents.

Evidence (key points)

• Children ≤14 made up ~36% of micromobility injuries from 2017–2022 (CPSC).

• FDNY guidance: charge/store outdoors when possible; never block exits; avoid aftermarket/unverified chargers.

• UL 2849 (systems) and UL 2271 (batteries) are recognized safety standards; national rulemaking is advancing to address hazards.

• Designated parking helps schools meet local bike-parking standards and manage curb chaos; add helmet and visibility campaigns.

Options considered

Option	What it looks like	Pros	Cons
Do nothing	No dedicated parking/charging; ad hoc storage	No cost	Higher crash/fire risk; sidewalk clutter; blocked exits
Designated e-bike parking + no-overnight charging	Outdoor racks; marked bays; daytime-only charging under supervision	Organized curb; reduces trip hazards; improves compliance	Needs space, signage, supervision
Certified charging lockers + helmet program	Lockers with UL-compatible chargers; helmet/visibility kit drives	Reduces fire risk; improves helmet use; safer storage	Capital/maintenance; equity supports needed

Alt text: Table compares no action, designated parking/charging, and certified lockers + helmet program.

Recommendations

1) Designate e-bike/scooter parking & supervised daytime charging. Owner: School + DOT. Steps: mark outdoor bays ≥6 ft from doors; add outlets on GFCI circuits under staff sightlines; post no-overnight charging.

2) Specify UL-certified equipment. Owner: Procurement. Steps: require UL 2849 systems and UL 2271 batteries; reject unlisted chargers; include vendor training and inspection checklist.

3) Run a safety campaign. Owner: SRTS coordinator. Steps: helmet fittings, lights/reflectors distribution, and short lessons on safe routes and charging etiquette.

Local data & resources: Philadelphia

- Philadelphia Code §14-804 — Bicycle Parking Ratios & Standards
- FDNY — Lithium-ion battery safety tips
- NYC DOE — Lithium-ion battery safety for schools (parking/charging rules)

How we'll measure success

- Helmet use rate at arrival: +25 pp at participating schools
- Reported near-misses/crashes on school commute: ↓ vs baseline
- Charging incidents or violations: ↓ to zero; exits kept clear
- Share of bikes with visible lights/reflectors: +30 pp

Credits & sources (clickable)

- CPSC — Micromobility injuries 2017–2022 (children ≤14 ≈36%)
- CPSC Report (PDF) — Micromobility hazard patterns 2017–2022
- FDNY — Lithium-ion battery safety tips
- UL — e-bike system certification UL 2849 overview
- CPSC rulemaking memo — lithium-ion safety standards for micromobility (2025)