



PowerForge

Meet the Cast

ADVANCED EDITION

Spark & Anvil

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This advanced edition collects 5 chapter books from the PowerForge cast — each character embodies a different curricular primitive; together they teach the full subject.

Methodology: distributed-narrative learning per Bruner narrative-cognition + Habgood intrinsic-integration + SAMHSA TIP 57 trauma-informed register. Advanced edition: upper-middle-grade register (Wonder / Hatchet / Holes band) for readers ages 11-14 ready for longer sentences + more nuanced subtext.

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For everyone who learns by reading between the lines.

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Introduction

The PowerForge cast was authored to embody the curriculum, not decorate around it.

Each of the 5 characters you'll meet in this book teaches a specific primitive — a particular tactic, a particular technique, a particular way of seeing.

Together they form an ensemble: the cast IS the curriculum.

Read in any order. Each chapter stands alone.

Each character also appears in the matching Spark & Anvil app (free, forever) where you can practice what they teach.

This is the **Advanced Edition** — written for readers who are ready for longer sentences, layered subtext, and the trust that comes with not having every joke explained. The Standard Edition covers the same characters at a lighter register; pick whichever feels right for the reader at hand.

— *The editors at Spark & Anvil*

Sprint



Sprint could not hold still, and somewhere along the way he had stopped apologising for it.

He was a cheetah-tween, gold-flecked cream fur and a chest that heaved when he ran, which was most of the time. On the open grassland outside Powerforge he flattened himself low and poured everything he had into a straight line, and the world narrowed until there was only wind and ground and the drum of his own paws. It was not the *being* fast he loved. It was the feeling underneath it — the way the air packed solid against his face at full tilt, the way the grass smeared into green streaks, the way the whole of him seemed to become one moving thing with nothing wasted.

He skidded to a stop by a fence post and rolled a small stone toward a stack of tin cans, gentle as a held breath. It kissed the bottom can. Nothing moved.

Then he backed off, coiled, and flicked the same stone with a running snap of his wrist. It cracked through the stack and scattered the cans clear across the field.

"Same stone," he said, to no one. He watched the last can wobble down. "Just faster. And it wasn't a *little* more, either."



He had learned exactly how much more on a day he did not like to remember.

As a cub, Sprint had believed going fast was a matter of simple arithmetic — twice the speed, twice the wallop, fun doubled and no surprises. So one bright afternoon, showing off for cousins who were not watching closely enough, he had doubled his usual downhill pace toward a hay bale he liked to slam into.

He did not bounce. He hit it the way you hit a shut door in the dark. The wind left him in a single grunt and he lay blinking at the sky, more astonished than hurt, his heart hammering somewhere up near his throat.

His father — an old, unhurried runner who never raised his voice — trotted down and folded himself onto the grass beside him. He did not scold. "Bigger than you expected?" was all he asked.

"I only went twice as fast," Sprint wheezed. "It should have been twice as hard. It was — it was *way* more than twice."

"Because speed doesn't stack the way it feels like it should," his father said.

"Double your speed and you don't carry double the punch. You carry four times it. The going gets multiplied by *itself* before it counts." He helped Sprint sit up, one broad paw steady between his shoulder blades. "That shaky feeling in your chest right now — that's the extra you didn't know was coming. That's the part nobody warns you about until it's already knocked you flat."

Sprint carried the fact and the feeling out of that afternoon in equal measure, and never once managed to separate them again.



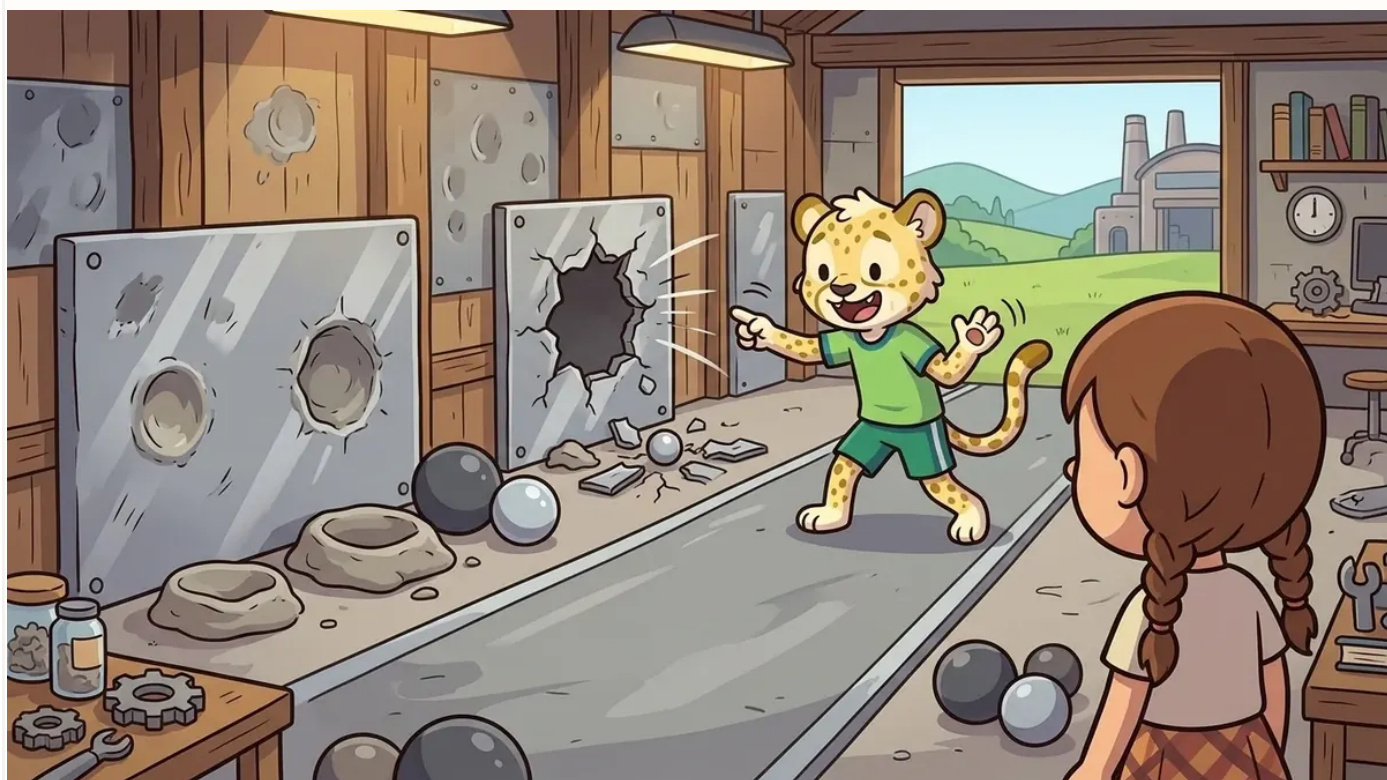
He walked to Powerforge at twelve, because it was the only place he had heard of that could *measure* the thing the hay bale had done to him.

Volt met him at the gate — grey, calm, the kind of old that has stopped needing to prove anything. He asked one question. "What is kinetic energy?"

Sprint did not recite. He asked instead for two identical clay balls. He rolled the first into a row of wooden blocks at a walking pace; it toppled one and stopped. Then he took the second back down the field, ran it up to full speed, and hurled it. The blocks flew apart and clattered against the fence.

"Same ball," Sprint said, still breathing hard. "The fast one carried more — and not a bit more. A lot more, out of only a little extra speed. Motion is energy. And the speed part counts double, because it gets multiplied by itself before anything else happens to it."

Volt watched the blocks settle across the grass, taking his time. "You belong here," he said.



Sprint's workshop had a long, smooth track down its length and a wall of dented targets at the end, and he loved nothing better than a visitor who arrived certain.

A girl came in one morning with her arms crossed and her mind made up. "The heavy ball wins," she announced. "More weight, more power. It's obvious."

"Let's find out," Sprint said, and tried not to grin.

He set a heavy ball and a light ball rolling at the same slow speed into two beds of soft clay. The heavy one pressed a deeper dent. "You're half right," he told her.

"Twice the weight, twice the mark — weight counts, straight across, one for one." The girl looked pleased with herself.

"Now watch the *light* one do something the heavy one can't." He carried the light ball to the track and sent it down fast — then fetched it and sent it down twice as fast. The first pass left a shallow dish in the clay. The second did not leave a dish; it punched a clean hole through to the board beneath. "Same light ball. I doubled only its speed. And it hit *four* times as hard. Not twice. Four."

Her mouth opened. "That's not fair."

"It really isn't," Sprint agreed, delighted. "But it's true, and it's everywhere. It's why a crash at highway speed is so much worse than a bump in a car park, even though the dial barely moved. It's why moving air — just a great fast crowd of tiny masses — can turn a turbine tall as a tree and light up a whole town. And it's why," he added, quieter, running his thumb over the punched hole, "my dad taught me to respect speed before I taught it to myself the hard way against a hay bale."



At the end of the day the girl lingered, watching Sprint roll a single ball down the empty track. It slowed, and slowed, and came to rest.

"Where'd it go?" she asked. "All of it. The go. When it stops — where does all that energy actually *go*?"

Sprint laid his paw on the ball. It was faintly, honestly warm.

"Feel that? A little heat. Some of it soaked into the track, some shook off as sound, some stirred the air." He looked out at the grassland, at the wind bending the grass in long slow waves. "That's the strange, true thing about my kind of energy — it only lives while the moving lives. The instant you stop, it's already gone somewhere else, quietly keeping the world's books balanced. Nothing's lost. It just leaves the motion and becomes something you weren't watching."

He was quiet a moment, and then he said the part he actually cared about — the part that had nothing to do with formulas and everything to do with the wide-awake feeling by the hay bale.

"When you're really moving — really flying — you can feel how much you're carrying. That feeling isn't showing off. It isn't nothing. It's about the most real thing there is. Just know how fast you're going before you choose where to point yourself. The going always turns into *something* when it stops. Make it turn into something you'd have chosen."

The girl nodded, slow and thoughtful, and Sprint felt a warmth settle low in his own chest that had nothing to do with running — a loose, easy gladness, the kind you get when a thing you love turns out to matter to someone else too. He breathed it in, let his shoulders come down, and trotted out into the wind to carry a little energy for the plain glad feel of it.

Perch



On the highest ledge of the cliff-eyries, a small eagle with feathers the color of warm cream climbed. Perch was not much bigger than a hawk, and her chunky altitude-vest made her look rounder still, but she climbed anyway — wing over wing up the rock face, higher, higher, until the village below shrank to specks. At the top she stopped. She did not dive. She folded her wings and stood, breathing slow, feeling the whole long drop hum beneath her talons. Every meter she had climbed sat in her body now, coiled and quiet, waiting. She could feel exactly how fast the wind would scream past if she opened her wings and let go. She never rushed it. She loved this part best — the held breath, the readiness, the drop that had not yet happened. "Stored," she murmured to the empty air. Then, only then, she tipped forward and fell, and all that patient height turned to speed in a single roaring second.



Her grandmother taught her the falling, but first she taught her the climbing. Perch was small — the runt of the eyrie — and the older chicks laughed when she practiced dives that barely cleared the nest. So Nan carried her, one gray dawn, to a ledge higher than any Perch had dared.

"Look down," Nan said. Perch looked, and her stomach lurched. "Are you afraid?"

"Yes."

"Good. That fear you feel — that's the drop, sitting in you already. You haven't moved. You haven't done anything. But the height put something *into* you just by carrying you up here." Nan nudged a loose pebble off the edge. It fell forever, then cracked on the rocks below. "See how fast it went? It wasn't fast when it sat beside your foot. The climbing gave it that. The falling only spent it."

Perch watched the pebble's dust settle. Something turned over in her chest. It wasn't that big eagles dove faster because they were braver. They dove faster because they climbed higher first. The strength wasn't in the wings at the bottom. It was banked at the top, all along, waiting.

"Climb high, and your body stores it," Nan said. "Dive, and you spend it. Same power, wearing a different coat." She looked at her tiny granddaughter. "You will never be the biggest. But you can always be the highest."

Perch climbed every day after that. And every day she learned to feel the waiting.



At twelve she walked the long road to PowerForge, the academy of energy, where the mentor Volt watched applicants from behind a workbench cluttered with wires. He did not ask Perch to fly. He set a heavy book on the floor and a shelf above his head and said, "Show me something true about this book. Anything."

Perch did not answer with words. She gripped the book and lifted it, slow and straining, up to the high shelf — then let her talon rest against its spine and looked at Volt.

"It's not doing anything," she said. "But it's not the same as it was on the floor." She tapped the shelf edge. "If this fell out from under it, the book would hit the ground harder than it ever would from your knee. Same book. Same weight. All that difference is just — where it is now. What I put into it, climbing it up here." She stepped back. "It's waiting. That's the truest thing about it."

Volt was quiet a long moment. Then he cleared the bench for her and said only, "You have a workshop."



That workshop became a cozy clutter of springs and batteries and small weights, and it was where a knot of students found her one afternoon, watching her press down on a thick coiled spring with both wings until it was tight and trembling.

"Watch my hands, not the spring," Perch said, muscles straining. She held it, held it. "Right now I'm doing all the work. The spring's doing nothing — just holding what I gave it." She let go. The spring cracked off the ceiling and bounced away. "*There's* the doing. The waiting came first."

A student named Wick pointed at two batteries on the bench. "My dad says one's got more electricity in it than the other."

Perch picked them up — one shiny, one dull. "Almost," she said gently. "Shake this fresh one. Feel anything? Neither do I. But inside, its little bonds are all wound up, ready to rearrange. The dead one already spent most of that." She set them down. "There's no electricity sitting in there like water in a cup. What's in there is chemistry, wound tight and waiting. Electricity is only what pours *out* when the winding finally lets go. Nobody stores lightning, Wick. We store the *readiness*."

She walked them to a model dam, tiny water glinting behind it. "This is the same thing, huge," she said. "All that water, held up high — nobody's touching it, nothing's moving. But hold your hand under the spillway when they open it." She mimed the rush, the spin of turbines. "The reservoir doesn't *have* electricity. It has height. Height that's been waiting, sometimes for months, until we need the lights on." She glanced back at them. "The higher the water, the more it's holding. Same as the book. Same as me on the cliff. Where a thing is decides how much it's waiting to become."



Wick frowned. "But if it's just sitting there — isn't resting kind of like doing nothing?"

Perch settled her feathers. "That's the thing everyone misses," she said. "Resting isn't nothing. Resting is loaded." She looked at the wound spring, the full battery, the high dark water. "When you understand the waiting, you understand why things fall, and how a battery lasts, and why the spring snaps back, and even how the food you ate this morning is quietly powering you right now. It's all just stored, waiting for its moment. And nothing gets lost along the way — it only changes coats."

She grew quiet, and a slow warmth spread through her, the same calm she felt on the highest ledge at dusk, full of banked power and in no hurry at all. It felt good, she thought, to be small and patient and ready. To know the waiting was never wasted.

"Stored," she said softly, "and ready." And she felt it in her own chest too — steady, unhurried, gathered — the quiet happiness of holding something strong and knowing, without a shred of doubt, that its moment would come.

Trade



Trade, a small octopus, hummed a quiet, tuneless melody. His eight arms, a warm cream color with soft coral tints, moved with practiced ease. Each arm worked independently, yet together, like a well-oiled machine. He wore a chunky converter-vest, its pockets overflowing with small, polished cards. These cards showed diagrams of devices: a spinning generator, a glowing light bulb, a flexing muscle. Next to him, a small tally board tracked inputs and outputs. He loved watching things change. He loved saying, "One form becomes another. Nothing made; nothing lost."

This was Trade's whole world. He was fascinated by how energy transformed. Most people, especially the younger novices, thought energy simply disappeared. They'd say a battery "died" or a fire "used up" its heat. Trade knew better. He knew that energy never truly vanished. It only shifted its shape, like a chameleon changing its skin. This was the core of his craft: **energy conversion**, the art of transforming one form of energy into another.

"Pip, come here," Trade called, his voice a gentle murmur. A younger octopus, barely a year older than Trade himself, shuffled into the workshop. Pip was still learning, often confused by the invisible forces Trade mastered.



"Watch this," Trade said, holding up a hand-crank generator. It was wired to a small, clear light bulb. "My muscles," he explained, flexing an arm, "are full of chemical energy from the food I ate. When I crank this handle, that chemical energy makes my arm move. That movement? That's **kinetic energy**."

He began to crank. The generator whirred, a soft, insistent sound. His arm muscles bunched and released. The small bulb flickered, then glowed with a faint, warm light.

"The kinetic energy of the spinning crank," Trade continued, "makes a magnet spin inside the generator. That spinning magnet creates **electrical energy**. See the wires? They carry that electrical energy to the bulb." He paused, letting Pip observe the dim glow. "Now, the bulb takes that electrical energy and converts it into two new forms: light energy, which you can see, and heat energy, which you can feel if you touch the bulb carefully."

Pip leaned closer, his eyes wide. "So, my muscles... then the crank... then the electricity... then light and heat?"



"Exactly!" Trade beamed. "Five forms, all in a row. My chemical energy became kinetic energy, then electrical, then light and heat. Nothing was made from nothing. Nothing was lost into thin air. It just changed its costume." He picked up a card from his vest, showing a diagram of a generator. "A generator converts kinetic energy into electrical energy. It's a conversion machine."

Trade then pointed to a different card, showing a motor. "A motor does the opposite. It takes electrical energy and turns it back into kinetic energy, like the wheels of a cart."

He moved to a small solar panel sitting on a workbench, angled toward the workshop's single window. Wires ran from the panel to a small battery, then to a tiny LED lamp. "The sun sends out **radiant energy**," Trade explained. "That's light, like from the bulb, but it travels through space. This solar panel captures that radiant energy and turns it into electrical energy."

He tapped the battery. "The electrical energy then flows into this battery. Inside, it becomes **chemical energy**, stored up for later. When we need it, the battery converts that chemical energy back into electrical energy, which then powers this LED." The LED glowed with a bright, clear light. "The LED converts electrical energy into light, just like the old bulb. But it creates much less heat. It's more efficient."



Pip looked from the dim old bulb to the bright LED. "So, the old bulb wasted more?"

"Not wasted," Trade corrected gently. "It converted more of the electrical energy into heat. That heat wasn't gone. It just wasn't the useful light we wanted. Think of it like a currency exchange. You trade one type of money for another. Some exchanges cost more in fees, but the total amount of money is still there. The universe's currency exchange is always balanced."

Trade walked to his form-tracking tally board. He pointed to the columns. "We track the input forms and the output forms. The total energy always remains the same. This is called the law of conservation of energy. It always holds true."

He remembered his own childhood, growing up along the deep-shelves of the ocean floor. His family had been renowned "long-form-changers" for generations. They were octopuses whose skin could shift color and texture in an instant, teaching the village that "the body has many forms; energy has many forms; the trick is knowing the conversion between them." Trade had absorbed their lessons like water.



When he was twelve, he had gone to PowerForge, the central hub for all energy craft. Volt, the wise elder, had asked him, "What is energy conversion?" Trade had answered without hesitation, "One form becomes another. Nothing made; nothing lost. It's form-changing-craft." Volt had simply nodded. "You are appointed," he had said.

Now, in his own workshop, Trade continued his gentle teaching. "Many people say a battery 'dies.' But it doesn't die. Its stored chemical energy has simply been converted into electrical energy, which then became light or heat or sound somewhere else. It's still energy. It just changed its form."

He picked up a small, smooth stone. "Even this stone has **gravitational potential energy** when I hold it high. If I drop it, that becomes kinetic energy as it falls, then sound and heat when it hits the floor. Every action, every device, every living thing is a converter."

Trade looked at Pip, a serious expression on his face. "Don't think energy gets 'used up.' Instead, think: *where did it go?* Every device is a converter. The 'wasted' energy is usually heat, still energy, just less useful for the task at hand. Conservation says: input equals output, always. Efficiency tells you how much of the output is *useful*."

He smiled. "One form becomes another. Nothing made; nothing lost."

Keep



Keep was a small, round tortoise with a shell the color of soft moss, and she kept a ledger the way other people keep a heartbeat — steadily, without ever quite putting it down. She wore a little vest with too many pockets, and in one of them lived her energy-balance book: a slim thing crammed with two columns, IN and OUT, and a slip of paper clipped to the front that showed percentages.

That evening she was at the edge of a slow PowerForge stream, watching a water-wheel turn. Most people would have watched the wheel. Keep watched the *water* — how much came in over the top, how much slid off the bottom, how much sprayed sideways and did nothing at all.

She licked her pencil and wrote. *Wheel: sixty in. Turning: forty. Splash and drip: twenty.* She underlined the twenty twice.

"There you are," she murmured to the splash, not unkindly. "I always find you eventually."



Keep had learned to count before she learned to build anything, which is unusual for a tortoise and unusual for anyone.

Her family were the bookkeepers of a stream-village, and had been for longer than anyone could remember. They counted grass rations through the cold months. They counted stores. And every winter, a young tortoise in the family would come to the same terrible night — the night the numbers didn't add up, and a whole pantry seemed to have simply *vanished*.

Keep's turn came when she was small. She had counted the winter store three times and come up short by a full basket, and she'd sat in the cold and cried, certain the food had disappeared into the air.

Her great-aunt found her there. She didn't scold. She just picked up the ledger, ran one wrinkled claw down the column, and stopped at a smudged line. "Here," she said. "You counted the seed-basket once as *in* and never as *moved to the back shelf*. Nothing vanished, little one. You just lost track of where it went." She tapped the page. "That's the whole secret. It never disappears. It only goes somewhere you weren't looking."

Keep found the basket exactly where the ledger, once corrected, said it would be. And the tight, hollow, robbed feeling in her chest let go all at once — replaced by something steadier, almost warm. Nothing was lost. It never had been. She had only needed to keep better books.



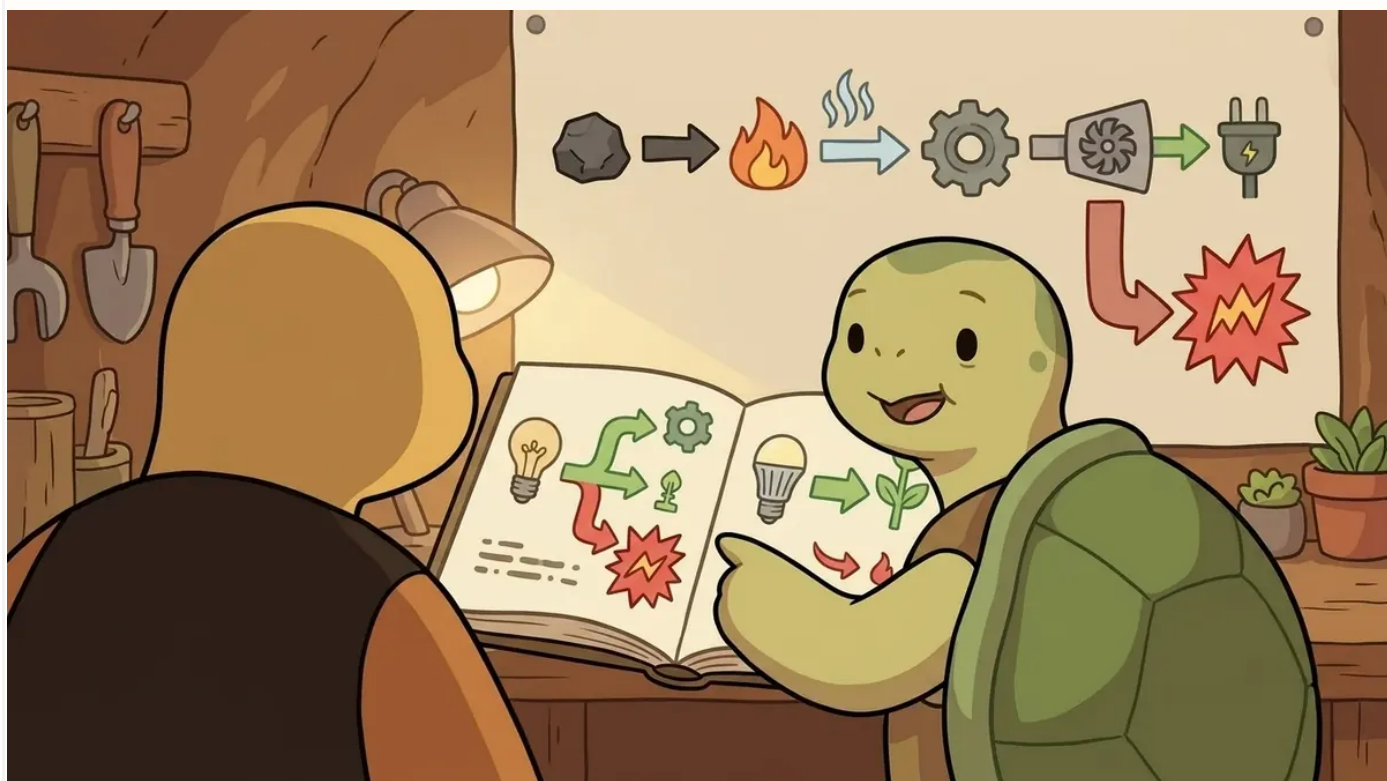
She walked to PowerForge when she was twelve, because a place that made light and heat and motion all day was exactly the place most likely to lose track of where its energy went.

Volt, the mentor — all crackle and quick sparks — met her at the gate, and he asked her the question he asked everyone.

"What is conservation?"

Keep didn't reach for a fancy answer. She opened her ledger to a fresh page and turned it toward him. "It means the books always balance," she said. "Whatever energy goes into a thing comes back out of it — every bit. It might come out as motion, or light, or heat you didn't ask for. But it comes out. Nothing is created. Nothing is destroyed." She looked up at him, steady. "Most people think a dead battery *lost* its energy. It didn't. The energy just left as heat and went somewhere they weren't watching. My whole job is to watch."

Volt's sparks slowed. For a tortoise she was very sure, and for a stream-village bookkeeper she was very much at home among his humming machines. "You are appointed," he said, and stepped aside to let her in.



Keep's corner of the workshop filled, over the years, with young makers who felt cheated by their own machines.

A boy came in one afternoon, thunderous, holding an old lamp. "I put a whole charge into this thing," he said, "and look — it barely glows. Where did all my energy *go*? It cheated me."

Keep set the lamp on her bench beside a meter. "Let's find it," she said. "Nothing was stolen. Watch." She ran the numbers. "Sixty units of power going in." She tapped the meter measuring the glow. "Six units coming out as light." Then she held her palm near the bulb, and it was hot. "And fifty-four coming out as heat you didn't want. Sixty in. Sixty out." She wrote it in the ledger and turned the page toward him. "See? The books balance. Your energy isn't gone. It's mostly warming the room."

"Then the lamp's just *bad*," the boy said.

"The lamp is ten percent efficient," Keep said. "That's the fraction that did the job you asked — light out, over everything in." She reached under the bench and swapped in a small LED. "This one. Nine units in. Seven of light, not-quite-two of heat. Same brightness, one-eighth the power. Eighty percent efficient." She let him hold his hand near it — cool. "The energy didn't cheat you. It only ever does what the machine lets it. Conservation tells you *none of it vanishes*. Efficiency tells you *how much of it landed where you wanted*. Those are two different questions, and you have to ask them both."

The boy looked at the two columns, the ten and the eighty, and his thunder went out of him. "So it was never about *finding* more energy," he said slowly. "It's about wasting less of what I already put in."

"Now you're keeping books," Keep said, and almost smiled.



Later, when the workshop had gone quiet and the meters had stopped ticking, the boy lingered by her bench with one last question, quieter than the first.

"When my old lamp finally dies for good," he said, "and there's nothing left in it — all that energy I ever poured in over the years — is it just... gone? Doesn't it *bother* you that most of it turned into heat that floated off into the sky and can't come back?"

Keep was quiet for a moment. She thought about a cold pantry and a basket that had never really vanished.

"It used to," she admitted. "When I was small I thought losing track of something was the same as losing it. It isn't." She smoothed her ledger flat. "Every bit of energy that ever warmed this room is still out there — spread thin, mixed into the air, too scattered to gather up again, but not *destroyed*. The books balanced the whole time. They always do." She looked at him. "The heat drifting off your lamp isn't a robbery. It's a receipt. It's the universe showing its work."

The boy let out a long breath, and Keep watched the last of the cheated feeling go loose across his shoulders — the same knot that had once sat in her own small chest by the pantry, finally coming undone. He wasn't angry at his lamp anymore. He looked, if anything, a little awed, and settled, the way you feel when you find out a thing you'd mourned was only ever *somewhere else*. A small, warm steadiness rose in him and stayed.

"Energy is conserved," Keep said softly, closing the book. "Efficiency is just what we keep useful." She rested her claw flat on the worn cover, the way you'd rest a hand on something breathing, and the two of them sat a while in the warm, honest quiet, and neither of them felt cheated at all.

Mix



Mix was a magpie-tween with cream feathers that broke the light into little rainbow flecks, and at this exact moment she was in a stubborn argument with a lightbulb.

"You'd like to stay lit all night," she informed it, threading it into a lamp on her crowded workbench. "Admirable. But you cannot ask the *sun* to keep you company. The sun clocks off at dusk. It's not lazy — it's just on the far side of the world." She ran a tangle of thin wires from the lamp to three things at once: a palm-sized solar panel, a toy windmill on a pin, and a squat little battery she'd salvaged from something else entirely.

She flipped the switch, and the bulb warmed to a steady gold. Then, watching it the whole time, she laid one wing flat across the solar panel — smothering its sun. The bulb dipped, wavered, and then, quietly, held. The windmill's trickle and the battery's stored charge had slid in underneath the falter before it could become

darkness.

"There," she said, deeply pleased with all four of them. "Not one of you carries the whole night. But *together*—" she lifted her wing and let the panel drink light again "—nobody in the room even notices when one of you takes a nap."



Mix's family had been nest-weavers for as many generations back as anyone could count, and they had learned, the hard and expensive way, exactly why you never trust a single material.

When she was small, Mix had built her first nest entirely out of one kind of long silver grass — because it shone, and because she was proud, and because a single beautiful thing seemed so much cleaner than a mess of many. It had been the finest nest in the tree, briefly. Then a dry spell settled over the valley, and the silver grass turned brittle all at once, the way a single-material thing always fails — completely, and on the same afternoon. She had sat in the loose wreckage of it with an ache spreading under her breastbone, the specific misery of having done everything right and been punished anyway.

Her mother had dropped down beside her carrying a homely bundle of twigs and moss and wool and a snarl of wire. "Ugly, isn't it," she'd said, cheerful about it, turning her own lumpy nest in the light.

Mix had sniffled. "Mine was prettier."

"Yours was *one thing*," her mother said, gentle underneath the plainness. "And when one thing fails, it doesn't fail a little — it fails all of it, all at once, with nothing behind it to catch the fall. Mine's a disaster. Grass and wool and wire and moss, none of it matching. And that disaster is precisely why it holds. The dry spell took my grass too — but the wool didn't care about the drought, and the wire didn't care about anything, and between them they held while the grass was busy dying." She'd nudged the ruined silver heap with a claw. "No single thread holds a nest, love. The strength lives in the blend. The whole craft of it is knowing which thread to add, and when."

That word — *blend* — had lodged in Mix and never come loose. Not as a rule she'd memorized. As a kind of safety she could feel.



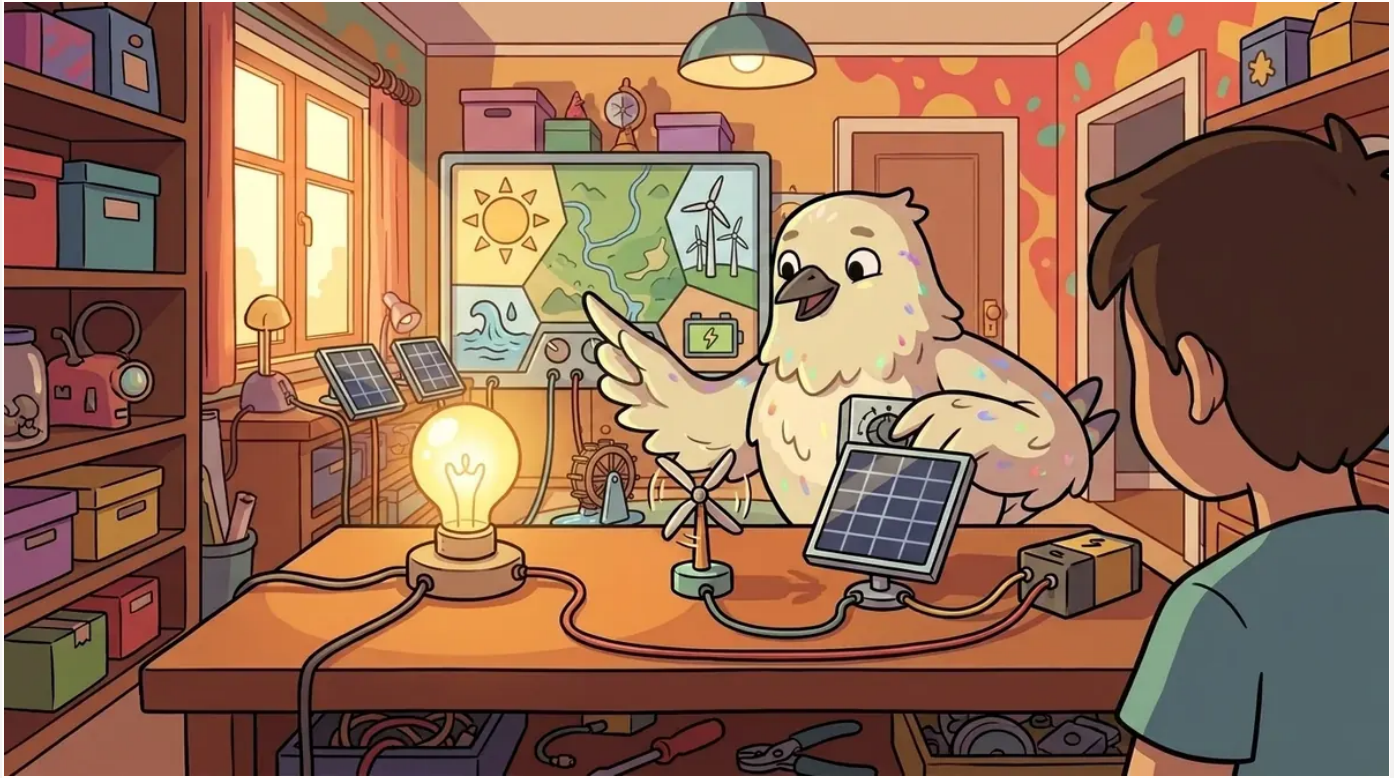
She walked to Powerforge at twelve, because a valley full of lights was, when you squinted at it honestly, only a very large and very important nest that could not be allowed to fall down in the dark.

Volt met her at the gate and asked the single question the mentors here always asked. "What is grid-mix?"

Mix didn't recite a definition at him. She pulled a hand-drawn pie chart out of her vest, its wedges inked in unsteady lines — sun, wind, water, and two thinner slivers she'd labelled in a hurry. "This is a valley's power on a good afternoon," she said, holding it up. Then she pressed her thumb to the sun-wedge and smudged it clean off the page. "Now it's the middle of the night. If the sun had been the *whole* pie, the valley just went black and everyone's supper went cold." Her claw moved to the wind and water wedges, and to a small battery she'd drawn in the corner. "But it wasn't the whole pie. So the others grow to fill the hole it left, and the battery

spends the sunshine it saved from this afternoon, and nobody sits shivering in the dark. Different mix. Same lights." She looked up. "That's the blend."

Volt studied the smudged, patched, thumbprinted little chart for a long moment. "You belong here," he said.



Mix's workshop had one entire wall given over to blinking panels that showed, minute by minute, exactly where the valley's power was coming from.

A boy marched in one morning wearing the particular expression of someone who had already solved everything. "Solar," he announced. "Just do solar. It's clean, it's free once you build it, the answer's obvious. Why does everyone insist on making it complicated?"

Mix genuinely loved a confident visitor. It gave her something to work with.

"I love solar too," she said, and she meant it entirely. "Watch what it does at noon in June." She spun a dial on the wall to high summer, midday, and the sun-wedge on the great board swelled until it swallowed nearly the whole display. "Look at that. On a bright day it does almost all the work by itself. You'd barely need to wake

the others." The boy nodded, thoroughly vindicated.

"Now," Mix said, "watch what it does at two in the morning, in December." She turned the dial. The sun-wedge shrank to a thread and then to nothing at all. By every rule of the boy's argument the lights on the board should have gone out — and they did not. The water-wedge held level and unbothered. The wind-wedge flickered upward into the gap. And a broad battery-wedge opened and poured out everything it had quietly banked from that bright June afternoon. "Solar didn't fail us," Mix said, watching his face more than the board. "It's just *asleep* — it's doing exactly what suns do. And the blend covered the sleeping one, the way friends do. That battery there is holding this afternoon's extra sunshine so it can spend it tonight." She turned to him fully. "One source, all alone, is a beautiful nest woven from a single silver grass. Add the others, and the whole thing quietly loses the ability to fall over."

The boy frowned at the humming board. Then, slowly, without quite deciding to, he un-frowned. "So there isn't one best answer."

"There's never one best answer," Mix said. "There's a good honest mix — and the patience to know which thread to add, and when."



At the end of the day the boy drifted back in, quieter now, and stood watching the wedges shift and rebalance as evening came on across the valley.

"Doesn't it stress you out, though?" he asked. "All those pieces, every one of them changing, any single one of them able to dip when you're not looking. I think I'd want *one* thing. One thing I could count on completely."

Mix thought about the brittle silver grass, and the crumbled nest, and the specific ache of having built everything right out of only one material.

"It used to," she admitted. "When I was small and I owned exactly one good thing, I was frightened all the time underneath — because if the one thing went, I had nothing behind it, and I knew it. But a blend is the *opposite* of frightened." She swept a wing across the calm, murmuring board, the wedges rising and settling like breathing. "Any single piece is allowed to have a terrible day, and the lights don't so much as flicker, because the others are already standing right there. That isn't stress. That's the most settled feeling I know — knowing no single failure gets to decide how the whole story ends."

The boy watched the sun-wedge fade and the others rise, unhurried, to meet the coming night, and felt something in his shoulders come down from where it had been holding.

Mix didn't say the last part aloud, but she felt it move through her, warm and sure as a well-woven nest around an egg: *the things that truly last aren't the ones made from a single perfect thread. They're the ones with threads enough that no bad day can ever take them all at once.*

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