



FlightForge

Meet the Cast

Advanced Edition

Spark & Anvil

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This advanced edition collects 5 chapter books from the FlightForge 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 FlightForge 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*

Wing



On a windy morning at the edge of the cliff-village, a small swift-tween named Wing threw a paper airplane off the highest ledge and watched, breathless, as the wind decided what to do with it.

The plane climbed. It hung for a second against the grey sky, tipped, and then swept out over the valley in a long, patient glide — going *further* than any of the swifts perched behind her had ever managed. Wing didn't cheer. She just breathed out slowly and traced a shape in the air with one feather-tip: flat along the bottom, curved along the top. A little hill of a shape.

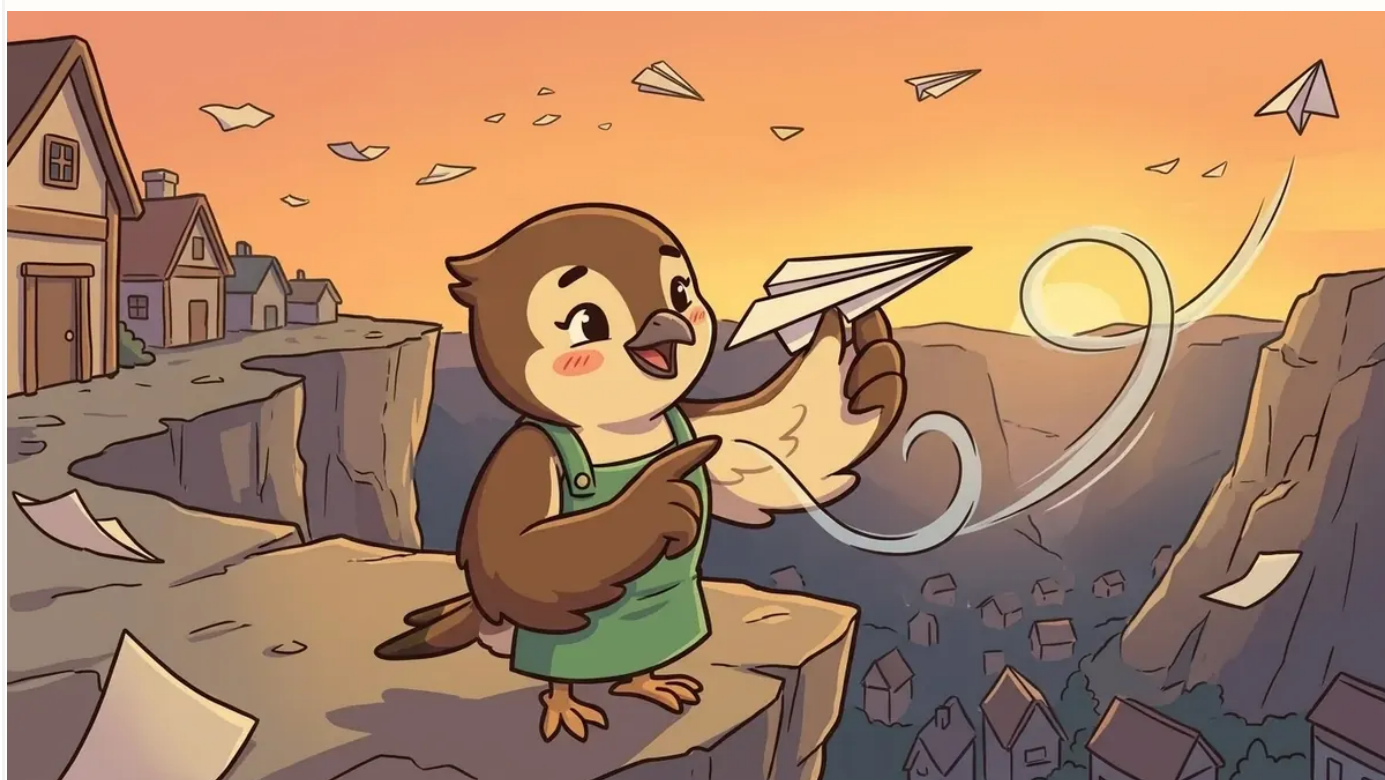
"That curve," she said, mostly to herself. "That curve is the whole thing."

A younger swift edged up beside her. "How did you *know* it would fly that far?"

"I didn't." Wing pulled another folded plane from under her wing. "I threw about forty of them off this ledge first." She grinned. "Watch this one. It's going to tip too much and stall out. I can already tell from the fold."

She threw it. It shot up, tilted its nose too high, and dropped like a stone.

"See?" she said, delighted, as if the crash were exactly as interesting as the glide. "That one just told me something."



Wing had grown up folding things.

Her family were the paper-folders for the cliff-festival — the swifts who taught village kids to fold flying-shapes out of leaves and thin bark-paper, then send them off the ledges to see what the wind made of them. Some flew far. Some dove straight down. Some looped and looped until they fell. And what Wing noticed, watching season after season, was that the *fold* decided everything. The wind was the same for all of them. Only the shape was different.

But for a long time she had it backwards in her head. Every plane that dove or crashed felt like a small failure — like the paper was telling her she'd done it wrong, that she wasn't good enough at this yet. She'd fold, throw, watch it dive, and feel that hot tight prickle behind her eyes. *Ruined it again.* She started throwing less. It hurt to keep missing.

Her grandfather, an old swift with wind-worn feathers, watched her stuff a crumpled failed plane into a crack in the rock one afternoon, embarrassed.

"You're hiding the good ones," he said.

Wing frowned. "That one *crashed*."

"That one *told* you why it crashed." He fished it out and smoothed it flat. "Look — the nose is heavy. It dove because of how you balanced it, not because you're bad at folding. A plane that flies perfectly teaches you almost nothing. A plane that crashes hands you the exact reason, for free." He set it in her feathers. "The crashes are the loudest thing the air ever says to you. Don't throw them in a crack. *Listen* to them."

Wing didn't quite believe him that day. But she stopped hiding the crashes. And once she stopped being ashamed of them, she started noticing what each one was actually saying — and there was so much of it.



She walked to FlightForge when she was twelve, because a place that studied flying ought to understand the shape that made it possible.

Skye, the mentor who ran the workshops, met her at the gate and asked her one question. "What is lift?"

Wing didn't rush the answer. She thought about all those planes off the ledge. "The wing pushes the air down," she said. "And the air pushes the wing back up. That's the whole trade." She drew the little curved hill in the air again. "The top of the wing is curved, so the air going over it has further to travel and moves faster. The wing is tilted, so it shoves air downward. People argue about which explanation is the *real* one." She shrugged. "But they both give you the same answer. They're the same trick seen from two sides. Lift is just the deal between the wing's shape and the air's speed."

Skye was quiet for a moment. "Most people pick a side," she said. "You didn't."

"Picking a side would mean throwing away half the planes," Wing said. "I'm done throwing planes away."

Skye smiled. "Then you belong here."



Wing's workshop filled up fast with paper — planes hanging from strings, planes in bins sorted by how they flew, planes stacked in hopeful, crumpled towers.

A boy came in one afternoon holding a plane he'd folded himself, red-faced. He threw it for her and it looped once and smacked the floor. "It won't work," he said, and she could hear the wobble in his voice. "I've done it like four times. I'm just not good at this."

Wing knew that wobble. She'd had it, once, on a cliff, hiding a plane in a crack.

"Throw it again," she said gently. "But this time, don't watch to see if it's *good*. Watch to see what it's *telling* you."

He threw. It reared its nose up, hung, and dropped.

"There," Wing said. "What did it do right before it fell?"

"...It pointed up too much?"

"That's called the angle of attack — how much the wing is tilted. A little tilt gives you more lift. But past a certain point the air can't cling to the curve anymore, it peels off, and the lift just — vanishes. That's a stall." She refolded his nose flatter, pinched a tiny weight into the front. "You didn't fail four times. You found four things. Big wing or fast throw both give you more lift — that's why slow birds have huge wings and fast jets have tiny sharp ones. Your wing's fine. Your *balance* was the story."

He threw it. It leveled out and flew clean across the room and tapped the far wall.

He laughed — a startled, whole-body laugh.

"See?" Wing said. "I missed. I missed again. I hit. That's not me being bad and then suddenly good. That's just the pattern. Every single time."



Later, when the workshop had emptied and the light had gone gold, the boy came back with one more plane and a quieter question.

"When you threw the ones that crashed," he said, "in front of everybody... didn't you feel stupid?"

Wing sat down next to him on the bench.

"For a long time," she said, "yeah. I hid them. I'd throw one, it'd dive, and my whole chest would go tight and hot, like everybody just watched me be wrong." She turned the plane over in her feathers. "And then somebody told me the crash was the plane doing me a favor. That the air was just handing me the reason, out loud, for free." She looked out the window toward the ledge where she'd thrown her first forty. "It didn't make me stop caring how the throws went. But that tight, watched, I-got-it-wrong feeling — it started turning into something else. Into *what's it telling me?* And that feeling is so much lighter to carry. You can throw a thousand planes with that feeling. You can barely throw one with the other."

The boy looked down at his plane. Then he stood up, walked to the middle of the room, and threw it hard.

It stalled. It dropped.

And instead of flinching, he tilted his head at it — curious — already reaching for the fold.

Wing watched the tightness go out of his shoulders, the exact way it had once gone out of hers, and didn't say anything at all. She just felt, warm and sure and glad, that he'd caught the part that mattered more than any curve or angle: that the missing was never the shameful part. The missing was just where the flying came from.

Drag



Inside a clear box at the edge of the FlightForge workshop, a paper plane hung on a thread in front of a humming fan, and a small russet otter named Drag was making the invisible visible.

He lifted a thin wand to his mouth and blew a trail of pale mist across the wing. The air showed itself, then — silver ribbons streaming back over the paper, folding smoothly along the front curve, then suddenly tumbling into little curling knots near the tail. Drag watched the knots for a long moment, the way some people watch a friend's face when they're deciding whether to believe what they just said.

"There," he murmured, more to the plane than to anyone. "Right there is where you're arguing."

A student leaning on the bench squinted. "Arguing with what?"

"With the air." Drag nudged the plane's tail down a hair and blew again. The curling knots loosened; the ribbons slid back cleaner, quieter. "The wing was fighting harder than it needed to. The air was pushing back, and the smoke was just telling me where." He set the wand down and grinned. "People think that pushing-back is the enemy. It isn't. It's the whole conversation."



Drag had grown up in the river-bend valley, in a family who watched fish for a living.

Every autumn the salmon came up the current, and his grandmother would sit on the wet stones for hours, naming which ones were fastest. Little Drag never understood how she could tell. To him they all just thrashed. But she'd point: *that one, the smooth one, the one shaped like a thrown stone* — and sure enough it would slide upstream while the rounder, blunter fish wore themselves out and drifted back.

"The river isn't kinder to the fast ones," she told him once. "It shoves all of them the same. The fast ones just gave it less to shove."

He remembered the first time he'd tried to swim upstream himself and felt it — that wall of water pressing on his chest, on his cheeks, everywhere he was broad. It was exhausting, and something in him wanted to be *angry* at the river for hating him. But when he turned sideways, pointed his nose into the current and pulled his elbows in, the wall didn't vanish — it just eased, like the water had stopped shouting and started talking. He wasn't stronger. He was smoother. The river hadn't changed its mind about him. He'd changed the shape it had to argue with.

That was the season Drag stopped thinking of resistance as a mean thing that happened to him, and started thinking of it as a message he could learn to read.



He walked to FlightForge at twelve, because a place that studied flying ought to care about the thing every flying thing has to push through.

Skye, the mentor, met him at the gate and asked only one question. "What is drag?"

Drag didn't recite. He pulled the little wand from his pocket, blew a soft cloud of mist, and let it drift against Skye's outstretched hand. It broke and curled around her fingers, tumbling on the far side.

"That," Drag said, pointing at the tumbling. "That's the air pushing back where your hand gets in its way. It's not being cruel. It's just telling you your hand is a wall." He tilted his palm flat, then edge-on into the drift, and the tumbling shrank. "Change the shape, and the air says something different. Drag isn't bad. Drag is information. If you don't like what the air's saying, you change what you're saying to the air."

Skye looked at the mist a moment longer than she needed to. "You're appointed," she said.



Drag's workshop was a small room full of shapes that argued with the air in different tempers, and one afternoon a girl came in slumped and pink-cheeked, holding a plane she clearly wanted to throw away.

"It's terrible," she said. "It just noses down and flops. I made the front all pointy like you said, and it's *worse*."

Drag didn't tell her it was fine, because it wasn't, and she'd have known he was lying. Instead he clipped it to the thread in the box and reached for the wand.

"Let's ask it what's wrong. Watch the smoke, not me." He blew. The mist raced clean over the sharp nose — and then, halfway back, ripped away from the wing in a violent, boiling mess.

The girl winced. "That looks bad."

"It looks *honest*," Drag said. "See where the smoke peels off? That's where your wing stops being friends with the air. You made a lovely front and forgot the back. The air can't hold on to a shape that drops off a cliff." He touched the plane's rear edge. "Water-drops know the trick. Fat and round at the front, then a long slow tail. Pointed everywhere isn't the answer — *tapered* is."

She pinched the tail into a gentler slope and looked up. "Can we ask it again?"

"Always. That's the whole job — ask, listen, change, ask again." He blew. The mist streamed back and stayed, laid down along the whole wing like fur smoothed the right way. The girl made a small sound, halfway between a laugh and disbelief.

"It's not fighting anymore."

"It's still fighting a little. It always is — you can't ever get it to zero, only quieter." Drag unclipped the plane and handed it back. "And sometimes you *want* it loud. A parachute is nothing but a shape that argues with the air on purpose, so you fall slow. Drag's a tool, not a curse. The only mistake is not listening to it."



Later, when the room had emptied, the girl came back in the doorway, quieter now, turning the plane over in her hands.

"When it went bad the first time," she said, "I thought it meant I was bad at this."

Drag remembered the wall of the river on his chest. He remembered wanting to be angry at the water.

"I know that feeling," he said. "The one where the pushing-back feels like it's about *you*. Like the air's got an opinion of you personally." He came and sat on the bench beside her. "It doesn't. The air's not grading you. It's just showing you, plain and patient, exactly where the shape and the wind disagree — and then it waits for you to try again. Every single time. It never once holds the last attempt against you."

She let out a breath she seemed to have been holding since she walked in, and he watched her shoulders come down out of her ears.

He didn't say the rest aloud, but he felt it, warm and sure the way the current had felt the day it stopped shouting at him: *the pushing-back was never the enemy. It was the only voice in the room actually telling me the truth — and a truth you can answer isn't something to be afraid of.*

Thrust



On the windiest ledge in FlightForge, a kestrel-tween named Thrust wound a rubber band as tight as it would go and grinned at the tension humming under her fingers.

The toy on her wrist was almost nothing — a propeller the size of a leaf, a loop of rubber, a splint of balsa. She let it rip. With a soft *zzzzzzzt* the blades blurred, and the toy tore itself off her wrist and shot the length of the ledge, past blueprints pinned down under stones, all the way to the far wall.

A younger bird ducked as it whizzed by. "How did that tiny thing move that fast?"

"It threw air backward," Thrust said. She held her palm out flat behind the spinning blades and felt the little wind pour off them. "Feel that? All that air, going *that* way." She pointed away from the wall. "So the toy goes *this* way." She pointed at the wall. "Every push has a shove that answers it. Push air back — you go forward. That's the whole trick."

"That's it?"

"That's it. The biggest jet on the biggest runway is doing exactly what that toy just did. It just throws bigger."



Thrust had grown up watching that shove long before she had a word for it.

Her family were kite-builders — kestrels who crafted the great festival kites, the ones that had to be *hurled* into the swirling air before the wind would take them. She had spent whole seasons on the launch cliffs, small hands aching, learning that a kite went nowhere unless you first threw something the other way: your own arm, your own breath, a hard shove of air off the wing.

The first engine she ever built was a failure. She'd wanted it to fly on its own, no throw needed, and it had sputtered off the bench and died. She remembered the hot, stupid feeling in her chest — like the machine was laughing at her.

Her grandfather had picked up the dead toy and turned it over. He didn't tell her she'd built it wrong. He asked, "When you launch a kite, what moves *backward*?"

"My arm," she said. "The air off my hand."

"And the kite?"

"Forward."

"So." He set the toy down gently. "Your engine forgot to throw anything. It wanted to go forward without shoving anything back. Nothing in the whole sky moves like that, little one. Not you, not a kite, not a rocket. You go forward by throwing something the wrong way. Build it to throw, and it'll fly."

She fixed it that night. And the frustration turned into something steadier — not *I failed*, but *I hadn't thrown anything yet*. Somehow that was a thing she could live with.



She walked to FlightForge at twelve, sturdy against the wind, because a place that studied flight ought to understand the one push underneath all of it.

Skye, the lead mentor, met her at the gate and asked a single question. "What is thrust?"

Thrust didn't answer with a definition. She unclipped the wrist-toy, wound it, and let it go. It buzzed across the flagstones between them and clattered to a stop against Skye's boot.

"Push backward, go forward," Thrust said. "The blades threw air that way, so the toy came this way. A jet does the same thing — it just burns fuel to throw the air hotter and harder. A rocket does the same thing in space, except there's no air to throw, so it throws its own fuel out the back. Propeller, jet, rocket. Same push. Fancier machines."

Skye looked at the little toy resting against her boot for a long moment. "You are appointed," she said.



Thrust's workshop smelled of oil and metal, and it was full of things that were secretly the same.

A boy came in one afternoon, hunched over a diagram of a jet engine — a monstrous cutaway of fans and combustion chambers and turbines, arrows going everywhere. "I'll never get this," he said. "There's too much. Compressors, bypass ratios, afterburners. It's too complicated to understand."

Thrust knew that hunch. She'd felt it over her own dead engine, years ago.

She set her rubber-band toy on the bench next to his diagram. "Wind this."

He did, warily.

"Now let go, but keep your hand behind it." He released it; the blades spun; the toy jumped forward across the bench. "What went backward?"

"...The air. I felt it on my hand."

"And the toy?"

"Forward."

"Right." She tapped the enormous scary diagram. "Now find the part of *this* where air goes backward."

The boy traced the arrows. His finger stopped at the tail, where a bold arrow blasted out the back. "...Here. The hot gas. It goes out the back."

"So the plane goes—"

"Forward." He looked up. "It's the same as the toy."

"It's *exactly* the toy," Thrust said. "The compressor squeezes the air. The fuel makes it hot. The turbine spins. And at the very end, all of it gets thrown out the back — a bigger, hotter, faster wind than your rubber band could ever manage. But the shove that answers it is the same shove. Push something backward, go forward." She grinned. "A rocket's just this toy that brought its own air along, because space has none to borrow. Every engine that ever flew is a rubber band that learned to throw harder."

The boy stared at the diagram, and Thrust watched something in his shoulders come unhunched — the arrows stopped looking like chaos and started looking like one arrow, pointing back, over and over.



Later, when the workshop had emptied, the boy came back with one quieter question.

"When it's spinning," he said, "and everything's a blur, and you can't see the air moving at all — how do you *know* it's throwing anything back?"

Thrust thought about the launch cliffs. About the ache in her arm and the kite lifting away and her grandfather's steady voice.

"You feel it," she said. "That's the honest answer. Put your hand behind anything that flies and there it is — the wind pouring off the wrong way, the price of going forward. It never disappears. Every bit of speed you get, something else paid for it by getting thrown back." She looked out the window toward the launch cliffs, where a festival kite was fighting up into the wind. "That's not a complicated secret. It's the simplest one there is. When something moves and you can't tell why, don't panic — just find what's going the other way. It's always there. Follow the backward throw and you'll understand any engine ever built."

The boy nodded slowly, and the last of the overwhelm went out of him — the same way, seasons ago, it had gone out of her over a broken toy on a bench.

She didn't say the rest out loud, but she thought it, warm and sure: *the biggest, scariest machines are almost always one small honest push, hiding behind a lot of noise. Find the thing going backward. The rest is just scale.*

Yaw



High above the windy-canyon village, a hawk carved a slow curve through the air, and a fox-tween named Yaw watched it turn with his whole tail twitching.

He was small, rust-and-cream, perched at the canyon's lip with a little model plane balanced across both paws. He wasn't playing with it. He was studying the hawk the way some kids study a puzzle they've almost solved — leaning in, breath held, waiting for the exact moment.

There. The hawk tilted first. One wing dropped, the other lifted, and the whole bird tipped sideways into the sky. *Then* — a half-heartbeat later — its tail feathers fanned and swung to follow. The bird poured itself around the curve, smooth as water finding a groove, and came out the far side without a single wobble.

"See that?" Yaw said, though no one had climbed up beside him yet. He said it to the hawk, or to the canyon, or to himself. "The wings started it. The tail only finished it."

He held up his model plane and tipped its wings — left wing low, right wing high. The little craft leaned the way the hawk had leaned. Then, gently, he nudged the small rudder on its tail a touch left. "That's all the tail's for," he murmured. "Not to turn. To *tidy*."

Below him, the wind moved through the canyon like a long slow breath, and Yaw sat there tilting his model back and forth, grinning at a secret most people got completely backwards.



He hadn't always understood it. For a long time, he'd been just as wrong as everyone else.

When Yaw was small, his family were the village's bird-watchers — the foxes who sat on the ridges from dawn to dusk, tracking every hawk and falcon that rode the canyon updrafts. And little Yaw had a theory he was very proud of. Birds turned, he announced one morning, by swinging their tails. "Like a boat," he said. "The tail's the rudder. Swing the rudder, the whole thing swings after it. That's how you steer."

His aunt, the oldest watcher on the ridge, hadn't corrected him. She'd just handed him a spyglass. "Watch the next one," she said. "Watch which part moves *first*."

So he watched. And watched. A falcon dropped in from the west, and Yaw pressed the glass to his eye, ready to see the tail lead the turn.

The tail didn't lead. The *wings* led. The falcon tilted its whole body first, dipping one wing toward the earth — and only after that, only once it was already leaning, did the tail feathers ease over to smooth the arc.

Yaw lowered the spyglass. His certainty slid sideways and fell right off the ridge. "The tail doesn't steer," he said slowly. "The tail comes *second*."

"The wings start the turn," his aunt said. "The tail finishes it. Took me twenty seasons to trust my own eyes on that, little one. You got there in an afternoon." She'd smiled at the canyon. "Now you'll never watch a turn the same way again."

She was right. He never did.



He walked to FlightForge at thirteen, the model plane tucked under one arm, because a place that studied flight ought to care about the difference between what turns a plane and what merely tidies the turn.

Skye, the mentor who ran the workshops, met him at the gate and asked one question. "What is yaw?"

Yaw didn't answer with a definition. He set his model plane flat on the gatepost and pointed at its tail. "This," he said, "is what everybody thinks does the turning." He tilted the whole plane instead, wings leaning. "But *this* is what actually turns it. The lean." He touched the little rudder and swung it a hair. "The tail just keeps the nose pointed where the lean is already taking it. It polishes. It doesn't steer."

Skye watched the model tilt in the boy's paws for a long, quiet moment.

"Most people who come through this gate," Skye said, "tell me the rudder steers the plane. You're the first in a while to tell me it doesn't."

"Boats steer with rudders," Yaw said. "Boats sit flat on the water — there's nowhere to lean. But a plane can tip its wings, and once it tips, the sky pulls it sideways all on its own." He shrugged, warm and sure. "Different world up here. Different rules."

"You're appointed," Skye said.



Yaw's workshop filled up with model planes and one very stubborn student.

She was sharp and quick and absolutely convinced she was right, which Yaw liked, because he'd been exactly that convinced once. She'd built a beautiful little glider and kept trying to turn it by swinging the rudder hard over. Every time, the glider skidded — its nose slewed sideways while its body kept sliding straight ahead, sloppy and lurching, like a kid trying to run around a corner without leaning into it.

"It's fighting me," she said, jaw tight. "I turn the rudder all the way and it just — *smears* through the turn."

"Because you're asking the rudder to do the wings' job." Yaw picked up her glider. "Watch. I'm not going to touch the rudder at all yet." He tilted the whole glider so one wing dropped low. "Now — where does it want to go?"

"...Left," she said, watching it lean. "It wants to fall left."

"It's not falling. The lift's still holding it up — it's just holding it up *tilted*, so now it pulls the whole plane leftward. That lean *is* the turn." He let the glider curve gently through the air, and it swept left in a clean arc — but its nose drifted a little wide of the curve, pointing slightly outside the turn. "See that? Nose lagging behind the path. That's the sloppy bit. That's where the rudder comes in."

He nudged the rudder a small amount into the turn. The nose swung over and lined up with the arc, and the glider carved through the curve so smoothly she made a small involuntary noise.

"That's it," she breathed. "That's the whole thing."

"That's the *finishing* of the whole thing," Yaw corrected, gently. "The lean did the turning. The rudder just tucked the nose in so the turn came out clean instead of skidding. Too little rudder, it slips. Too much, it skids. Just right —" he flew the glider through one more perfect arc "—it carves."

She took the glider back and tried it herself: tilt first, then a whisper of rudder. The little craft carved. She laughed out loud, the way you laugh when a thing you've been wrestling suddenly cooperates.



Later, when the workshop had emptied and the light through the window had gone gold, the student came back with a quieter question. She'd set her glider down and was turning it over in her hands.

"I feel kind of dumb," she admitted. "I was so *sure* it was the rudder. I built the whole glider around that idea. And it was wrong the whole time."

Yaw thought about the ridge. About his own proud little theory, and the falcon that had knocked it clean off the edge, and how his aunt hadn't made him feel small about it.

"You weren't dumb," he said. "You were watching the wrong moment. Everybody does — it's the most natural mistake in the sky. The tail's right there at the back, big and obvious, swinging away. Of course it looks like the boss." He picked up his own model and tilted its wings, slow. "The real work is quiet. It's the lean nobody notices, the tilt that happens a half-heartbeat before the flashy part. Once you've seen it, though—" he swung the rudder that last small touch "—you can't unsee it. Every hawk. Every glider. Every turn for the rest of your life."

She nodded, and Yaw watched something loosen in her — the tight, embarrassed set of her shoulders easing, the way his own had eased on the ridge years ago when *wrong* turned out to be just the doorway into *seen it now*.

He didn't say the rest out loud, but he felt it, warm and settled: there's a particular relief in finding the small thing you were missing — not being handed the whole answer, just the last light touch that makes everything you already had suddenly line up and fly clean.

Tail



At the far end of the FlightForge testing hall, a heron-tween named Tail stood with her back to the crowd and fitted a small paper fin to the tail of a plane.

Everyone else was watching the front. A boy had built a wing that curved like a wave, and the whole hall leaned toward it. Tail did not lean. She crouched at the workbench with a little case open beside her, four paper tail-shapes laid out on the cloth like tools, and she was thinking about the part of the plane no one ever cheered for.

She picked up the finished plane, walked to the throwing line, and let it go without a word.

It went straight. Not spectacular — straight. It held its nose level, tracked a clean line the length of the hall, and settled onto the mat as gently as a leaf. A few people clapped politely and turned back to the wave-wing.

Tail didn't mind. She walked to the mat, picked her plane up, and slid her thumb along the small fin at the back. That was the part that had done the work. That was the part that always did.

"Straight isn't luck," she said, to no one in particular. "Straight is the tail."



She hadn't always understood that.

The first plane Tail ever built, she'd spent an entire afternoon on the nose. She'd folded it sharp and proud, sure that a good point up front was the whole secret. Then she threw it — and it tumbled. Nose over tail, spinning, slapping the floor. She threw it again. It tumbled again. She felt her face go hot, that sinking feeling of *I worked so hard and it just falls*.

Her aunt found her there, surrounded by crumpled planes. Their family had shaped rudders for the village fishing boats for as long as anyone could remember — long stern-blades that kept the boats tracking true through the current. Her aunt didn't laugh. She picked up the tumbling plane, turned it over, and touched the empty flat back where nothing had been folded.

"You built the whole plane and forgot the back of the boat," she said. "On the water, we say the stern is the boss of going straight. It's true in the air too. The front decides how you look. The back decides whether you go anywhere at all."

Tail folded a small flat piece off the tail — just a stub, barely anything. She threw it. It didn't tumble. It wobbled, then held, then glided, awkward but *straight*. Something in her chest unknotted. The plane wasn't the nose she'd been so proud of. The plane was the quiet fold in the back she'd almost skipped.

She kept that stub of paper for years.



She walked to FlightForge at thirteen, because a place that studied flight ought to respect the part of flight that no one applauds.

Skye, the mentor who ran the hall, met her at the door. She didn't ask Tail to throw her best plane or show off her fastest glide. She asked one thing. "What is the tail?"

Tail set her case on the bench and took out a plane with no tail at all — just wings and a nose. She threw it. It tumbled to the floor, exactly the way her first one had. Then she fitted a small paper fin and a flat back-wing, and threw the same plane again. It went straight the length of the hall.

"Two throws, same body," Tail said. "The only difference is the back. Without it, the plane tumbles. With it, it flies. The wings get the credit. The tail makes the credit possible."

Skye looked at the plane resting on the mat, then at Tail. "You belong here," she said.



Tail's workshop was full of planes that flew straight and no one could say why.

A girl came in one afternoon, frustrated, holding a plane she'd clearly poured hours into. The wings were beautiful — long, swept, carefully creased. "It looks amazing," she said, "and it flips every single time. I've re-folded the wings four times. I don't get it."

Tail knew that feeling. She'd felt it on the floor with the crumpled planes.

"Throw it for me," she said. The girl did. The plane pitched its nose up, stalled, and rolled onto its back. "Now — where did you spend your time?"

"The wings. Obviously. They're the whole plane."

Tail tilted her head. "Show me the tail."

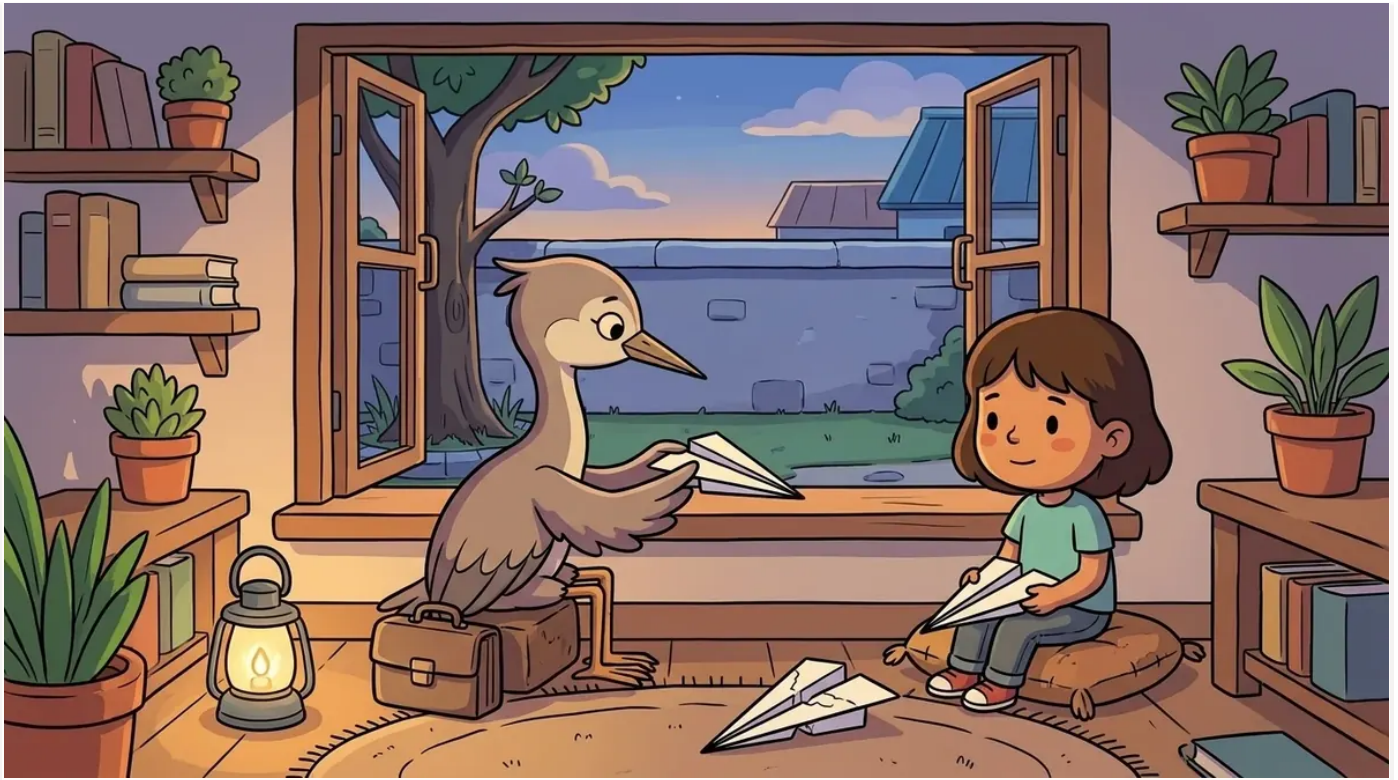
The girl turned it over. The back was flat. Empty. She'd folded nothing there at all.

"There's your flip." Tail took the plane and folded a small horizontal flap into the back — a little wing behind the big one. "This one pushes down, just a little, and keeps the nose from tipping up. It's called the horizontal stabilizer. Fancy name, tiny job: keep you level." Then she creased a small upright fin. "And this keeps you from swinging side to side. Vertical stabilizer. Between them, they're the reason a plane points where it's going instead of wandering."

The girl threw it. It flew straight and level, all the way to the wall.

She stared. "That's *it*? That little bit in the back?"

"That little bit in the back," Tail agreed. "You didn't waste the hours on the wings. Good wings matter. But wings make lift, and lift with nothing to steady it just tumbles. The tail doesn't get the glamour." She grinned. "It just gets you there."



Later, when the hall had emptied, the girl came back with one more question. She was quieter now, turning the plane over in her hands.

"Doesn't it bother you?" she asked. "You fix everybody's planes with the part nobody looks at. The wings get all the noise. And the tail — the thing that actually makes it work — nobody even sees it."

Tail thought about the stub of paper she'd kept for years. About the crumpled planes and the hot face and the moment the wobble turned to straight.

"It used to," she said. "I wanted the front. Everybody wants the front." She ran her thumb along the fin, the way she always did. "Then I noticed something. When the tail's doing its job, the plane just... goes. Smooth. Quiet. And nobody thinks about it, because there's nothing to think about — nothing's going wrong. That's what the quiet work feels like from the inside. Not empty. Not ignored." She was quiet for a second. "Full. Like everything's holding, because *you're* the thing holding it."

The girl looked down at her plane, at the small folds in the back that had cost almost nothing and changed everything.

Tail watched her get it — watched the frustration lift off her shoulders the way it had lifted off her own, years ago, on a floor full of crumpled paper.

She didn't say the rest out loud, but she felt it, steady and warm and low in her chest: *the parts that go unnoticed are usually the parts doing the most. When something flies straight, someone quiet made it so.*

About Spark & Anvil

FlightForge is one of 140 educational iOS apps from Spark & Anvil — a 501(c)(3) public charity making free, ad-free, tracking-free learning apps for ages 9–14.

Every app uses distributed-narrative methodology: named recurring characters embody curricular concepts. The cast you just met appears in the matching app, in mentor scaffolding, in puzzle solutions, in celebration moments. Reading the chapters first means meeting old friends when you open the app.

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