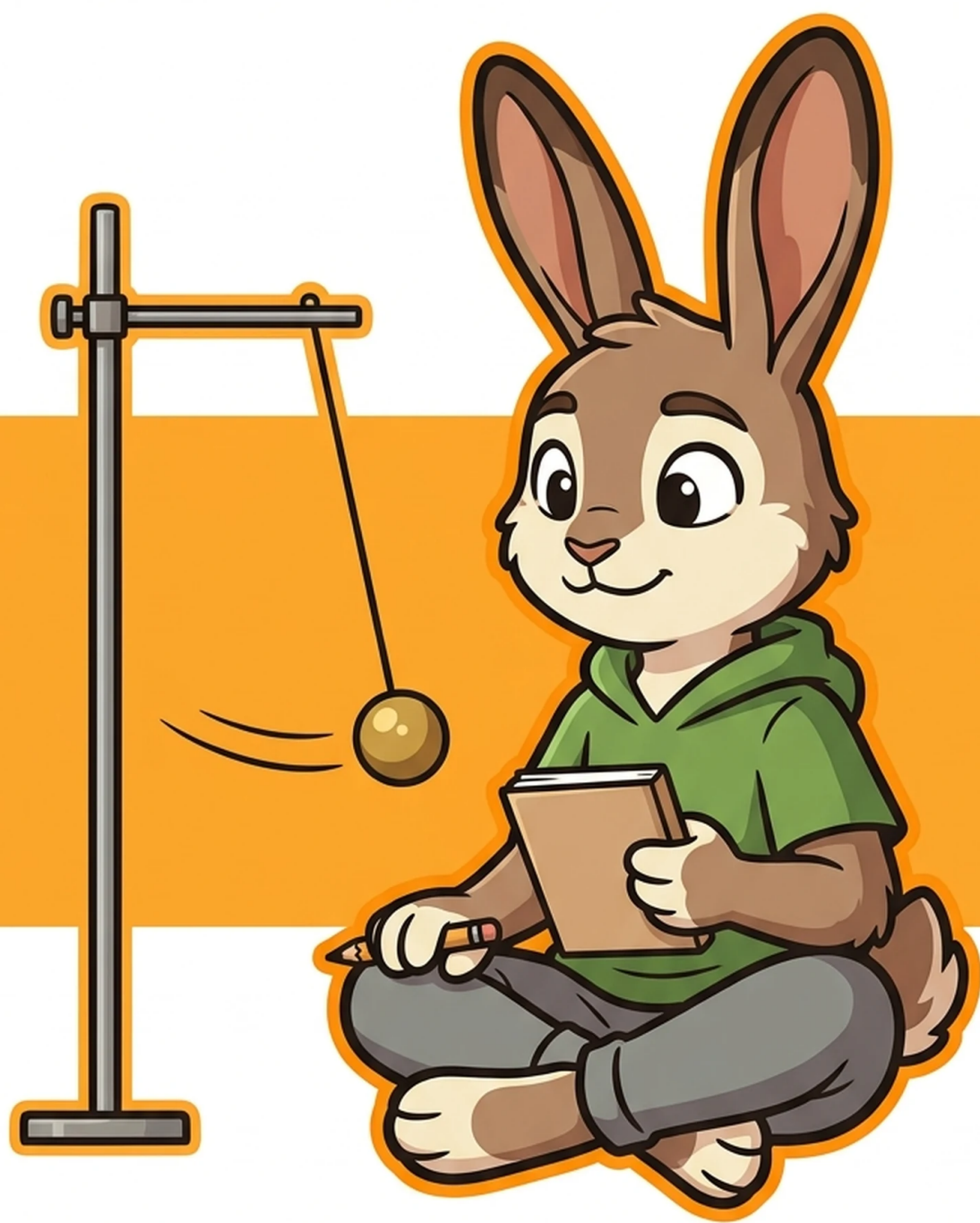




Labsmith

Meet the Cast

Advanced Edition

Spark & Anvil

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This advanced edition collects 4 chapter books from the Labsmith 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 Labsmith cast was authored to embody the curriculum, not decorate around it. Each of the 4 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*

See



In the corner of the Mechanics Lab, a hare-tween named See sat so still she might have been carved there, and watched a brass ball swing.

The ball hung from a thin string on a tall metal stand, no bigger than a marble, and it drew a slow arc through a shaft of afternoon light. *Swoosh. Swoosh.* See had been watching it for over a minute without touching it, without naming it, without deciding a single thing about it. Her notebook lay open on her knee, but she wasn't writing a theory. She was writing what the ball *did*, in words so plain they almost embarrassed her: *swings back and forth*. Her ears leaned toward it, twitching at each pass, as if the swing had a sound only she could hear.

A kid named Guess skidded up beside her, still catching his breath, already talking. "A pendulum — easy. Longer string, slower swing. Pull it back higher, it goes faster. The mass doesn't even matter." He reached for the string.

See lifted one soft paw without looking away. "Wait."

"For *what*? I've done a hundred of these—"

"You've done *a* pendulum." Her gaze never left the ball. "You haven't looked at *this* one. Look first. Talk later."

Guess huffed and dropped his hand. See kept watching, and after a while she noticed something he hadn't: each swing climbed a hair less high than the one before. She wrote that down exactly as it happened — no *why*, just the *what*. Guess read over her shoulder and frowned. "That's not even a finding. That's just... what it's doing."

"Yes," See said, and nearly smiled. "That's the whole trick."



See had not always been so patient. When she was younger, she'd been closer to Guess than she cared to admit — the kind of kid who announced the ending before the story had started.

There was a puddle behind her family's burrow, and one spring it filled with wriggling black tadpoles. See had declared, instantly and at volume, that they were baby fish; that by summer they'd be fat silver fish; and that she would name the biggest one Captain. She was so sure of the ending that she stopped checking the middle. For weeks she didn't kneel at the water's edge even once — why would she, when she already knew?

When she finally *did* look — really look, flat on her stomach with her nose near the surface — the tadpoles had sprouted little back legs. Then front legs. Then they hauled themselves out, tiny and brown, and hopped off into the grass. Frogs. Not fish. Never fish.

She sat by the empty puddle with a hot, prickly squirm rising in her chest, the particular shame of having been wrong on purpose. She hadn't been watching the tadpoles at all. She'd been watching the story in her own skull — the one starring Captain the silver fish — and the real world had been quietly transforming the whole time, right in front of her, unwatched. That squirmy feeling took a long while to settle. But when it did, it hardened into something steadier, almost a vow: *next time I look first. I find out what's true before I decide what it means.* And strangely, the promise made the world feel bigger instead of smaller — full of things still allowed to surprise her.



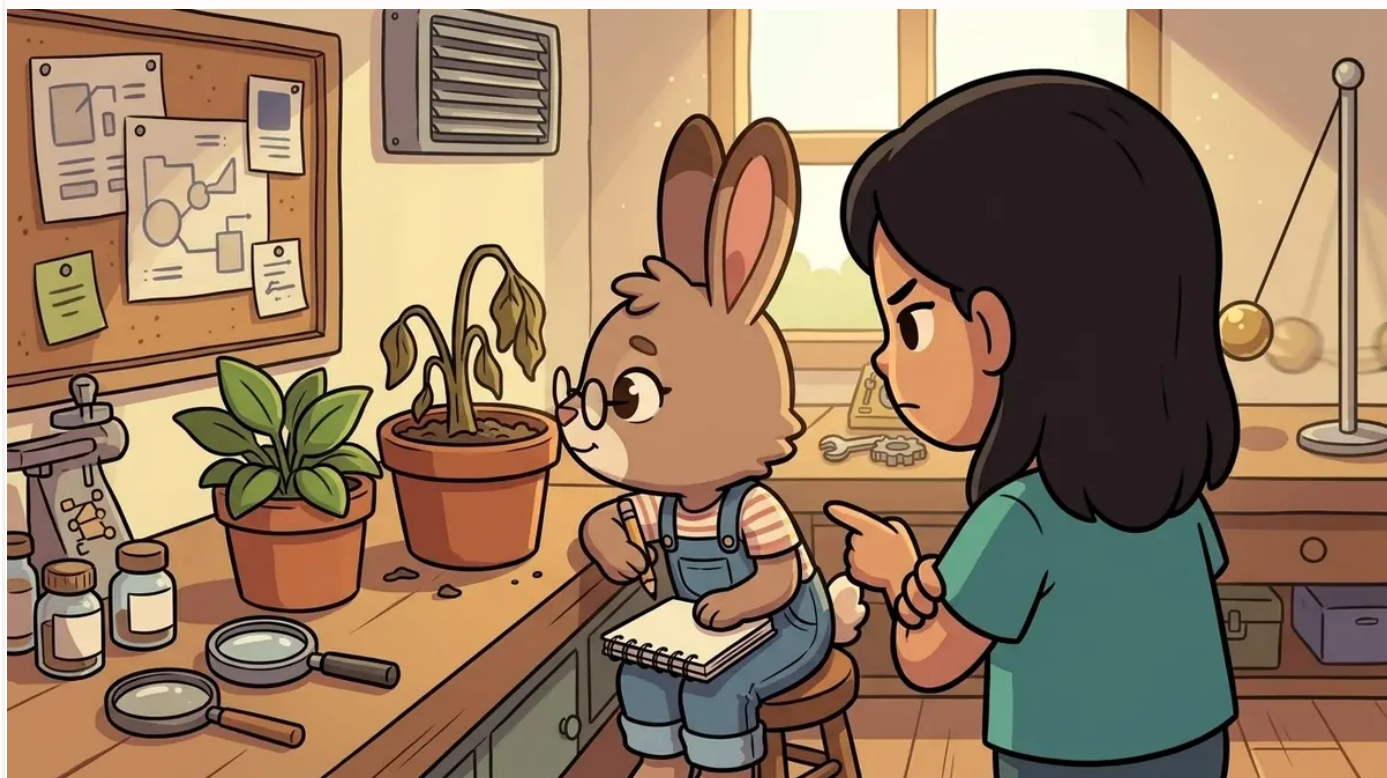
She walked to the Grand Laboratory at twelve, reasoning that a place devoted to how things *actually* worked would understand the kind of patience that comes *before* the answer.

Smithy, the badger who ran the lab, met her at the door. He didn't ask her to recite an element or name a law. He set a closed wooden box on the table, something shifting softly inside it, and said only, "What's in the box?"

See didn't guess. She lifted it and turned it slowly in her paws, feeling the weight roll from corner to corner — one heavy thing, not a scatter of small ones. She tilted it and listened to it slide. She found the seam and pressed her eye to a hairline gap and squinted into the dark. Only then did she set it down.

"One object," she said. "Heavier than the box. It rolls instead of tumbling, so — round. Metal, I think, from how it slides." She looked up, level. "I don't know *what* it is. Those are just the facts I have so far."

Smithy tipped the box and a single steel marble rolled out onto the table. He studied her for a long moment. "Most kids tell me what they hope is inside," he said. "You told me what you found. You belong here."



Over the years, See's corner of the lab filled with kids who arrived already certain.

One afternoon a girl dropped onto the bench, arms folded tight, glaring at two identical-looking seedlings. "This experiment's *broken*," she said. "Same water, same light — they're supposed to match. But that one's drooping and that one's fine. Something's rigged."

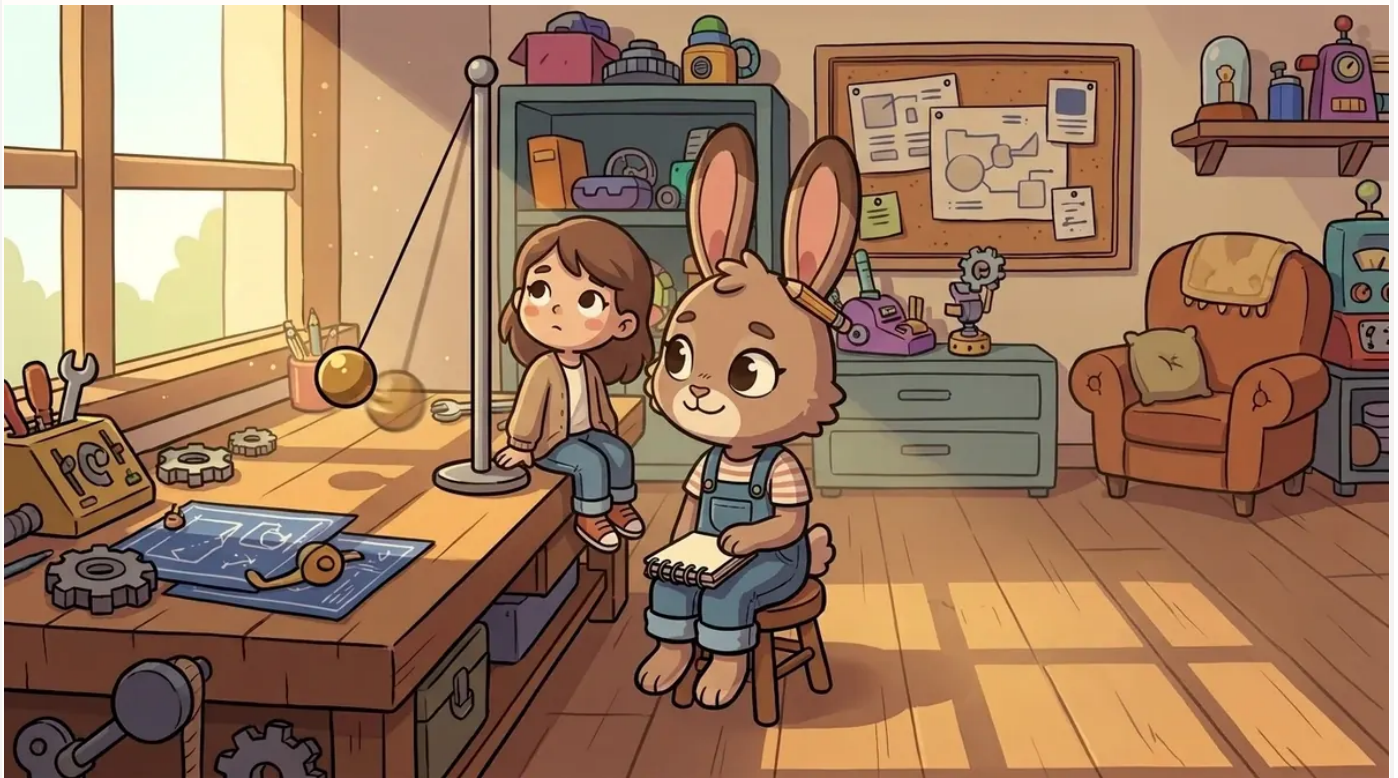
See didn't argue. "Show me droopy," she said, and got close, nose nearly in the soil, and said nothing for a long while. Then, quietly: "Come look at the dirt with me."

The girl leaned in and made a face. "It's dry. Way drier than the other one's."

"Keep looking. Why might it be dry?"

The girl's eyes tracked up the pot, up the wall behind it — and stopped. "Oh. It's sitting right under the heater vent." She sat back, startled. "I never *saw* that."

"Nothing's rigged," See said gently. "You decided they were the same before you looked at where each one was standing. The plant isn't lying to you. Our looking was lazy." She slid the notebook across. "Write what's *actually* true first — soil, light, air, the exact spot each one sits. Then guess. A guess built on looking is a hypothesis. A guess built on hoping is just a wish wearing a lab coat." The girl started to write, real things this time, and See watched the folded arms come loose — watched the girl lean *toward* the plants instead of away — and remembered a puddle full of frogs, and a vow.



When the lab had emptied and the light had gone gold, the girl came back with a smaller, quieter question.

"When you're just watching," she said, "and you're not fixing anything, and you don't have the answer yet — doesn't it drive you a little crazy?"

See thought about the tadpoles. About the hot prickly squirm that had, over years, cooled into something else entirely.

"It used to," she said. "Now it's the part I like best." She looked at the pendulum, still tracing its patient shadow across the bench. "When I don't know yet, and I'm only *looking*, the whole world is still allowed to surprise me. Every crack in a box, every dry patch of soil, every swing that's a hair smaller than the last — it all gets to be true, because I haven't crushed it under a guess." She tucked her pencil behind one ear. "Ears up. Eyes soft. Nothing decided yet."

She felt it as she said it — that calm, wide-awake steadiness spreading warm across her chest, her shoulders low and easy, her breath unhurried. Not the tight thrill of already knowing. The slow, glad quiet of being ready for whatever was really there.

"That's my favorite feeling in the world," she told the girl, and the smile that came with it was warm and settled and entirely unhurried. "Not knowing yet — and looking anyway."

Guess



Guess was a small fox with soft orange fur and cream stripes, and a way of tilting his head that made him look like a question with legs. He stood at the workshop's cluttered bench, one paw tucked under his chin, staring at a pendulum that would not stop bothering him.

It was only a nut on a string, swinging. Tick. Tock. But it was swinging *less* each time — the arc shrinking, slow as a held breath. Anyone else might have shrugged. Guess pulled a small card from his vest pocket, laid it flat, and wrote three words at the top: *What if...?*

That was the whole of it, really. Guess didn't collect facts; he collected the shape of a good question. A guess like *the pendulum is doing pendulum stuff* was useless — soft, round, nothing to grab. But a guess shaped like *what if the air is slowing it?* had a handle on it. You could pull that handle. You could build a test that answered yes or no. Guess spent his days teaching that a wondering only became science the

moment you could hand it to the world and watch the world answer.



He had not always known how to shape a question. As a kit, he'd been the one who guessed at everything and checked nothing — the fox who was always *sure*, and always, quietly, wrong.

He remembered one summer especially. His family's stream had gone cloudy overnight, and small Guess had announced, with total confidence, that the moon had done it. Not a testable moon. Just — the moon. It felt like an answer, so he stopped looking. For three days he sat certain and useless while the water stayed murky.

His aunt, an old vixen who fixed things, had finally crouched beside him. "The moon," she repeated, not unkindly. "All right. How would we know?"

Guess had opened his mouth and found nothing in it.

"That's the trouble with your guess," she said. "It's cozy. It can't be wrong because it can't be *checked*. A guess like that keeps you warm and keeps you stuck." She dipped a cup upstream and a cup down. "But *what if something upstream is stirring the mud?* — now that one, we can chase." Upstream they found it: a fallen branch churning the bank. Not the moon. Something they could move.

The murky water clearing was not what stayed with him. What stayed was the *feeling* — the itch of not-knowing finally getting somewhere to go. A cozy guess had trapped him. A testable one had set him loose.



Guess walked to LabSmith the season he turned old enough, because a workshop full of people trying things was exactly where a good question was worth the most.

Smithy, the workshop's mentor, met him at the door and asked the question they asked everyone. "Guess. What do you bring us?"

Guess didn't recite a definition. He pointed at a jar of green pond-water on the sill. "Someone will look at that and say *it's just gross*," he said. "That's a dead end — nothing to do next. But if I ask *what if the green stuff grows faster in sunlight?* — now there's a shelf here and a shelf in the dark, and a week from now the jar itself tells us." He tilted his head. "I don't bring answers. I bring wonderings shaped so the world can answer them for you."

Smithy studied the jar, then the small earnest fox, and a slow smile spread. "The bridge between wondering and doing," they said. "We've had plenty of both and nothing to cross between them. Stay."



The pendulum was still nagging him the afternoon See wandered over. See was the careful one, always watching, always noting. "It keeps slowing down," she murmured. "Every time. Why?"

"That's an observation," Guess said, ears twitching up. "A good one. Now watch — I'll try some framings." He set his card down. "What if the *air* slows the swing?" He wrote it. "Testable. We swing the same pendulum in a jar with the air pumped out. If it swings longer there — air's the culprit."

See's eyes went wide. "Oh."

"Or —" Guess tapped the top of the string where it met the stand — "what if the *rubbing* here slows it? Testable. We oil the pivot, or swap in a smoother one. Longer swing after? Then it was friction."

"What if the *string* stretches?" See offered, leaning in. "A little, each swing?"

"Exactly!" Guess beamed and wrote it. "What if the string's stretchiness matters? Testable — swap the string for a stiff rod. Same swing, the stretch wasn't it. Different swing, it was." He looked at the three lines on his card, pleased. "See what happened? Every *what if* turned into a thing we can *do*."

See frowned at the card. "But some of those will be wrong. Two of them, probably."

"Good," Guess said, and he meant it. "A wrong *what if* still earns its keep. If the vacuum test does nothing, we've crossed 'air' off — for good, forever, no more wondering about it. Wrong guesses aren't failures. They're the fastest way to shrink the mystery." Across the room, Check had already lit up — *three experiments, one variable each!* — and Smithy, leaning on the anvil, murmured that the *what-if* was the bridge, and it was.



That evening the workshop emptied and the light went gold, and See lingered by the pendulum with a quieter question.

"When my guess turns out wrong," she said, not looking at him, "it always feels like I messed up. Like I should've just known."

Guess sat down beside her. He thought about the cloudy stream, and the moon he'd been so sure of, and the three stuck days.

"I used to feel that too," he said. "Like a wrong guess was a mark against me." He nudged the card toward her, its three *what ifs* waiting in the half-dark. "But look at these. Two of them are going to be wrong by next week. And when they are, I won't feel bad — I'll feel *lighter*. Because a wrong one gone is one less thing hiding the answer." He watched the pendulum ease to stillness. "You're not supposed to just know. Nobody is. You're supposed to ask something the world can answer, and then let it."

See was quiet a while. Then he saw it happen — the small unclench in her shoulders, the tightness of *I should've known* going soft and loosening its grip. She let out a breath she seemed to have been holding all afternoon, and a warm, steady gladness settled into her chest, the plain relief of realizing she'd never again have to be right on the first try. She picked up the card and read her own three lines back, and for the first time all day she wasn't afraid of being wrong.

Check



Two seedlings sat on the workbench in two identical pots, and Check studied them the way you'd study a witness who might be lying.

They weren't lying, of course. That was the whole point. She had made certain of it, and the certainty had cost her eleven quiet days. Same seeds, from the same paper packet. Same soil, scooped from the same bag with the same trowel. Same pot, same shelf, same window, watered the same amount on the same mornings from the same little tin cup. Between pot one and pot two there was exactly one difference in the entire universe: a folded scrap of blue tissue taped over the second pot's window. A little shade. Nothing else.

A badger-tween in a heavy canvas apprentice vest, Check leaned in slowly, one paw smoothing a curling label flat. The stopwatch charm at her pocket ticked when she moved. She uncapped her pencil and added a single line to a worn card in handwriting so tidy it looked measured. "Eleven days," she said, half to the plants.

"Sun plant, four centimetres taller. Shade plant, one." She tapped the card once. "So it *is* the light. Not the water. Not the soil. The light — and I can prove it, because the light is the only thing I ever let move."

A younger apprentice peered over her shoulder, unconvinced. "But couldn't it be anything? Plants are complicated."

Check slid the two pots together until their rims kissed. "They're twins," she said. "Same everything. I only allowed one thing to be different between them." She touched the blue square. "That. So whatever made pot one climb and pot two stall has to be that. There is nowhere else in the whole experiment for the answer to hide. I built it so the truth would have no exit."

The younger apprentice looked from the tall plant to the waiting one, and to the small square of blue standing between them like a verdict.

"One test at a time," Check murmured, and capped her pencil.



Check had not been born patient. Once she had been the opposite — a fixer, the kind who fixed everything at once and called it decisive.

The winter her family's kettle stopped whistling, she'd gone at it in a single furious burst. She scrubbed the crusted spout, cranked a loose screw tight, shunted the kettle to the hottest ring of the stove, and bent the little whistle-flap back into its proper curl — all in one afternoon. Then the kettle whistled, and everyone clapped, and Check glowed with the particular pride of a problem solved.

The pride lasted exactly eight days. On the ninth the kettle fell silent again, and Check discovered she had no idea what to undo. Was it the screw working loose? The flap sagging? Had the hot ring warped something? She had changed four things at once, which felt like learning four things — and was actually learning nothing at all, because not one of the four could be told apart from the others. She sat on the cold kitchen tiles with the cold kettle in her lap and felt a horrible knotted tightness climb up behind her ribs: the specific misery of having worked hard and being able to point to none of it.

Her great-aunt found her there — an old badger who mended clocks for the village, all squint and slow thumbs. She didn't say Check had done it wrong. She lowered herself onto the tiles with a series of small grunts, looked at the dead kettle, and said, "You changed a whole fistful of things, didn't you. And now the fistful won't tell you which finger did the mending."

Check nodded, wretched.

"So next time you change one finger," her great-aunt said. "Then you *look*. Then you change the next one, and look again. It feels slower." She patted Check's knee. "It only feels that way. The truly slow road is the one where you learn nothing and start the whole thing over in the spring. The one-finger road is the road where the answer can't slip loose from you." She stood, joints clicking like her clocks. "Certainty is worth a little waiting, love. Almost nothing else is."

Check didn't fix the kettle that night. But the knotted feeling had a shape now, and a cure, and by the next morning there was a folded card in her vest pocket with a single careful line at the top of it.



She walked to Labsmith at twelve, because a place devoted to *how we find things out* seemed to her the natural home for the careful kind of finding out.

Guess met her at the gate before she'd even set down her bag — a bright, restless apprentice already tangled halfway through three ideas at once. "You've arrived at a good time," he announced. "The reading-room lamp keeps flickering, and I've swapped the bulb *and* re-braided the cord *and* dragged it to a different outlet, and it *still* has good nights and bad nights, and now—" He stopped, and the enthusiasm drained out of his face. "And now I honestly couldn't tell you what earned the good nights and what didn't."

Something warm and rueful turned over in Check's chest. She knew that exact tangle, right down to the guilty little pause at the end.

She didn't lecture. She drew out her card, laid it flat on the gate-post, and ruled one clean line down its middle. "Put every single thing back the way it started," she said, gently. "Old bulb, old cord, original outlet. Then change *one*. Just the bulb. Watch it for a whole day and write down what it does." She turned the pencil around and offered it handle-first. "If the flicker stops, it was the bulb. If it doesn't, you put the old bulb back — back, mind — and you test the next one thing on its own."

Guess weighed the pencil. "That'll take *days*."

"It'll take days," Check agreed, without apology. "And at the end of the days you will actually *know* — not guess, not hope. Know." An old mentor loitering just inside the gate had been listening; he gave the slow, unhurried nod that at Labsmith meant *she belongs here*, and turned back to his bench.



Check's corner filled, over the months, with contraptions being tested exactly one change at a time.

Guess found her there on a grey afternoon, orbiting a pendulum — a brass ball on a string, hung from a tall pine frame. "Does a longer string swing slower?" he asked, already reaching. "Let's lengthen the string *and* try the heavier ball *and* pull it back further and just *see*—"

"One thing," Check said, smiling, and set her stopwatch charm on the bench with a small deliberate click. "You want to test the *length*. So the length is the only quantity in this whole room permitted to change." She raised a paw and folded down her fingers one by one. "Same string. Same ball. Same pull-back angle — we'll mark it on the frame. Same frame, same spot on the bench. Only. The. Length."

Guess groaned theatrically, but he built it her way. Check measured with a care that bordered on ceremony. "Thirty centimetres." Guess drew the ball to the pencil-mark and released it. *Swoosh. Swoosh. Swoosh.* She counted ten swings under her breath and clicked the charm. "Ten point two seconds," she said, and inked it.

Then — touching nothing else, moving nothing else, her free paw hovering to make sure — she eased the clamp and let the string out. "Fifty centimetres." Same ball. Same marked angle. Same everything in the world but the length. *Swoosh.* The arc rode wider now, and slower. "Twelve point eight seconds."

Guess leaned in, eyes bright. "It *is* slower. And the strange thing is I actually *believe* it, because—"

"Because nothing else moved," Check finished for him. "If I'd also swapped the ball for the heavy one, you'd be standing here right now wondering whether it was the length or the weight, and you'd never get to *believe* a single thing. Doubt would eat the whole afternoon." She turned the card toward him: three tidy rows of numbers marching down the page. "Change one. Hold the rest still. Run it. Note it. Do it again."



Later, when the workshop had emptied and the pendulum hung dead-still in the last grey light, Guess lingered at the door, quieter than he'd been all day.

"Doesn't it drive you a bit mad, though?" he asked. "Going so *slow*. One little thing at a time, when everything in you just wants to reach in and *solve* it."

Check thought about the cold kettle, and the knotted tightness, and the eight proud days that had proved nothing.

"It used to," she admitted. "For years I thought slow was just a longer word for stuck. I hated it." She looked at the two seedlings, still side by side on her bench — one reaching, one patient. "But it isn't stuck at all. When you change one honest thing and then simply *watch*, there's this feeling that arrives — clean, and settled, like your hands have finally worked out exactly where they are in the dark. No tangle. No lying-awake wondering which of the four fingers did the mending. Just one true little fact, small enough to hold, that nobody can ever take back from you."

Guess nodded, slow, and Check watched the day's restlessness ease out of his shoulders — the very same way, years back, the knot had loosened out of hers on a cold kitchen floor.

She didn't say the last part out loud. But she felt it settle through her, warm and level and sure as a held breath let go: that the world hands over its answers one calm question at a time, and that there is nothing in the whole patient world that feels quite so good as knowing, for certain, exactly which small thing was true.

Reflect



Reflect sat cross-legged on the lab floor with a single index card balanced on her knee, and for a long while she did nothing at all.

To anyone passing, it looked like she'd stopped working. In fact she had never been working harder. The pendulum experiment was finished — Check had swung the weights and timed them with her usual maddening care, then handed over the results and drifted off to line something else up. Three measurements, that was all. A thirty-centimetre string swung in one-point-one seconds. Fifty took one-point-four. Seventy took one-point-seven. Three tidy lines of ink, and the whole afternoon poured into them.

A younger apprentice folded down beside her, restless. "That's it, then. We've got the numbers. We're done."

"We've got the numbers," Reflect agreed, still not looking up. "We haven't got the *learning* yet. Those aren't the same thing, and most people never notice the gap."

"Aren't they, though?" The apprentice squinted at the card. "Numbers are the answer. That's the whole point of measuring."

Reflect tapped the card, slow, once for each line. "Longer string, slower swing — good, our guess held. But look closer." She went very still. "Thirty to fifty added zero-point-three. Fifty to seventy added zero-point-three *again*. If the string keeps getting longer, why doesn't the time keep stretching to match? These numbers are trying to tell us something, and it is *not* the thing we asked them." She pulled her journal into her lap and began, carefully, to draw.



Reflect had learned to sit inside that gap when she was small, and she'd learned it the uncomfortable way — the only way it really teaches.

Her first real experiment had been beans. Two rows: one on the sunny windowsill, one shut in the cupboard, measured to the millimetre every single day for a month. At the end she owned a full page of heights, neat and honest, and she felt something she had absolutely not expected — a slow, sinking hollowness. She had *done* it. The work was complete. And she understood precisely nothing about beans.

"A whole month," she told her grandfather that night, pushing the page across the table. "And I've got nothing. Just little numbers that don't say anything." Her chest sat tight and heavy, the specific ache of effort that refuses to turn into an answer.

Her grandfather was an old, unhurried person who measured tea by eye and was never once wrong. He studied the page for a while and did not tell her what it meant. He asked, "Which row grew taller?"

"The window one. Obviously."

"And which *day* did it pull ahead?"

She looked — really looked — and there it was, something she'd copied down twelve times without ever seeing. A single day in the middle where the window row simply leapt. "...Day eleven. Something happened on day eleven."

"There." He tapped her chest, right where the heaviness lived. "The numbers sat there the whole time. They didn't do the noticing. *You* did. And that knot you're feeling — that isn't nothing-happened. That's the part where the work isn't finished, where your head's still turning the clues over in the dark." He smiled. "The measurements are only the ingredients. The thinking is the cooking. Nobody eats a bowl of raw flour."

That night Reflect understood the thing that would shape the rest of her life: an experiment never hands you knowledge. It hands you clues, and then it waits — quietly, patiently — to see whether you'll bother to read them.



She came to Labsmith at twelve, because a workshop devoted to *how we know things* ought to care most about the step where the knowing actually happens — and, from the outside, almost nobody seemed to.

Smithy, the old mentor who ran the place, met her at the door and did not ask her to prove she was clever. Smithy asked one question. "You've run your experiment. You've got your results. What's left to do?"

Most newcomers said *write it up*. A few said *we're finished*. Reflect said nothing at all. She reached past Smithy to a shelf, took down a jar of assorted buttons, and tipped them out across the table in a clattering heap.

"Well?" Smithy said mildly. "There's your data."

"That's not data." Reflect was already sorting them, biggest to smallest, unasked. "That's a mess of buttons. It only *becomes* data the moment I ask it a question — what have we got, what's surprising, what do we do next. The pile can't answer any of that on its own." She set the last button down. "Only a person can. The pile just sits there being a pile."

Smithy watched her sort a while longer, then something in the old face eased. "Most people believe the results *are* the answer. You already know they're only the beginning. You belong here."



Reflect's corner of the workshop became the place finished experiments came to *mean* something — and, just as often, the place discouraged people came to slump.

A boy dropped onto the stool one afternoon, thoroughly deflated. He'd run a survey, counted every answer twice, ruled out a flawless chart. "I did everything right," he said. "And I still don't *get* it. It's just — a chart. A correct, pointless chart."

Reflect knew that slump from the inside; she'd worn it over a page of beans. "Read me your chart," she said.

"Most people picked the blue one. That's it. That's the whole result."

"All right. What surprised you?"

He opened his mouth to say *nothing* — and stopped. His eyes went sideways, the way eyes do when a memory ambushes you. "...Actually. The little kids didn't. Every little kid picked red. I didn't ask them to be different. They just *were*."

"*There*." Reflect leaned in. "That's the good part — the part your guess never predicted. A prediction that comes true teaches you a little. A surprise teaches you a lot, because it means the world knew something you didn't. So: what does it make you want to do now?"

He thought properly this time. "Find out *why* the little kids are different. Run it again — just with them."

"Then it was never a dead chart," Reflect said. "It's a chart that grew you a brand-new question. That's the entire trick, start to finish. We *look*, we *guess*, we *test* — and then —" she tapped her journal "—we *learn*: what did we find, what surprised us, what's next. And 'what's next' loops you straight back to looking again, with sharper eyes than before." She grinned. "It never actually ends. Walk it once and it's a lesson. Walk it a hundred times and it's simply how you think. Nobody finishes science. You just keep going round the loop, and the loop keeps making you better."

The boy laughed — a small, startled laugh — and reached for a fresh card to catch his new question before it got away.



Long after, when the workshop had emptied and the lamps had gone low, the first apprentice from the morning came back, still turning the pendulum card over and over between their fingers.

"When the numbers just *sit* there," they said quietly, "and you honestly can't tell what they mean yet — how do you know there's anything hidden in them at all? What if it really is just a pile?"

Reflect thought about the beans. About the tight, heavy, nothing-happened ache, and her grandfather's finger tapping her chest in the lamplight of another kitchen years ago.

"You don't know, at first," she admitted. "There's this stuck feeling — like you've spent everything you had and you're holding a fistful of clues and not one of them will look back at you." She smiled a little. "But that heaviness isn't the ending. It's the doorway. It's the exact moment right before understanding, while your brain is quietly turning the pieces in the dark. If you can sit with it — and keep asking *what did we learn, what surprised us, what's next* — sooner or later the pile starts to speak."

She looked down at the three numbers and the soft curve she'd finally drawn to join them, the shape that had been waiting there the whole afternoon. She let out a long, slow breath — not the tight, sinking one from the beans, but a lighter one, the kind that comes out on its own when a weight you'd stopped noticing simply lifts.

"There it is," she said, mostly to herself, and felt the knot behind her ribs come loose and go warm. "Gone. I can feel it. It just — *fit*."

About Spark & Anvil

Labsmith 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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