



AMERICA
SUCCEEDS

PATHSMITH™
DURABLE SKILLS

Da Vinci Design High School

Where the Design Process Becomes a Way of Thinking

El Segundo, California (Los Angeles County) · Public Charter School · ~540 Students



“Learning is so intentional here. The way that we learn things and that process will stick with me, probably my whole life.”

— Kayla, Senior

School Snapshot

Location	El Segundo, CA; draws from 80+ zip codes across Los Angeles County
Type	Public charter school within Wiseburn Unified School District, part of the Da Vinci Schools network
Enrollment	~540 students, grades 9-12
Admission	Open enrollment, no academic prerequisites
Partnerships	300+ industry partners including Snap Inc., Mattel, Gensler Architecture, Karl Storz Medical
Philosophy	All learning organized through a four-phase Design Process (Care, Conceptualize, Create, Critique) and three Habits of Mind (Accountability, Quality, Collaboration), with four career pathways enabling exploration followed by specialization

Who They Serve

Da Vinci Design serves a genuinely diverse student body: 65.6% Hispanic/Latino, 13.9% African American, 9.3% White, with 45-50% qualifying for free or reduced-price lunch. Unlike selective magnet programs, Da Vinci Schools maintains open enrollment with no academic prerequisites, making the school's outcomes particularly significant and transferable.

99%	high school graduation rate
90%+	A-G college eligibility rate
91%	college persistence rate (vs. 75% national average)
63%	bachelor's degree attainment within 6 years
40%	of graduates enter college with industry certifications
78%	CTE pathway completion rate for Black graduates (among California's highest)

What Makes It Distinctive

- **Dual framework:** the four-phase Design Process (Care, Conceptualize, Create, Critique) and three Habits of Mind (Accountability, Quality, Collaboration) organize all learning across every subject
- **Four career pathways** (Architecture, Graphic Design, Entrepreneurship, Fine Arts) with exploration in 9th-10th grade and specialization in 11th-12th
- **Presentations of Learning (POLs)** replace traditional finals, twice yearly in every class, producing approximately 48 formal presentations per student across four years
- **Mastery-based grading** allows students who struggle initially to demonstrate growth through persistence
- **Quarterly Exhibition Nights** drawing 200+ community members
- **20 pupil-free days to professional development each year**, enabling project-based learning and signature practices with fidelity

Opening: From Silence to Voice

Lily entered Da Vinci as, in her words, “the most shy person ever.” Public speaking triggered genuine anxiety. Even class participation felt terrifying.

From the first day, Da Vinci immersed her in exactly what she most dreaded. Freshman Seminar required presentations with clear rubrics. The food truck project demanded coordination across four disciplines and public explanation of her team’s work. Exhibition Night arrived, and Lily found herself presenting to hundreds of community members.

These early experiences didn’t eliminate her anxiety. But they showed her she could survive them. Each small success built minimal confidence for the next challenge. Sophomore year brought more presentations. Junior year, the audiences grew more demanding. By senior year, Lily had delivered roughly 40-50 formal presentations across four years, each with gradually increasing stakes and authentic audiences.

“Now I’m able to speak out more about what I want to convey to other people. So I know that would definitely help me in the future in college.”

Her transformation didn’t happen through a breakthrough moment. It happened through systematic practice, approximately 48 POLs, multiple Exhibition Nights, Student-Led Conferences, and countless informal presentations, within relationships that made risk-taking possible despite persistent fear. Da Vinci proved that communication skills develop through doing, not through instruction about communication.

The Model: A Dual Framework Applied Everywhere

Da Vinci Design organizes all learning through two interconnected frameworks. The Design Process (Care, Conceptualize, Create, Critique) provides cognitive methodology, a thinking scaffold students apply across every subject and project. The Habits of Mind (Accountability, Quality, Collaboration) establish behavioral foundations, the professional dispositions that make good thinking productive.

Neither alone would suffice. The Design Process without the Habits of Mind might produce creative thinkers who can’t meet deadlines or collaborate effectively. The Habits of Mind without the Design Process might yield reliable workers lacking creative problem-solving. Together, they develop both how students think and how they work.

The frameworks appear in every classroom, on every rubric, in every project. Students encounter them from Day 1 through Freshman Seminar, a full semester dedicated to onboarding students into design thinking and professional habits. School leader Russell explains: “Throughout each project that students are working on, they’re going to go through that design process two times, three times, four times.” The iterative cycling is the point.

Four Pathways: Exploration to Specialization

Da Vinci’s four career pathways, Architecture, Graphic Design, Entrepreneurship, and Fine Arts, structure a deliberate progression. In 9th and 10th grade, students explore all four through introductory coursework, gaining exposure without pressure to commit. By the end of 11th grade, students specialize, developing professional-level skills using industry-standard tools. Each pathway integrates rigorous academics (UC/CSU A-G requirements) with hands-on, project-based learning through dual enrollment partnerships with El Camino Community College.

Javan described his exploration: “I wasn’t sure what to do. I had completely different things, like life goals in mind, either an animator or an architect or an engineer.” Da Vinci allowed him to dual-enroll in both graphic design and architecture during his 11th grade year, experiencing each authentically before committing. “I did both graphic design and architecture. And so I had a year of both, where I truly decided what I thought was a better fit.” He talked to his graphic design teacher, decided on architecture, and committed fully. By graduation, his software mastery in Revit and SketchUp “shocked” working architects at a professional firm.

Seen Through a Durable Skills Lens

Da Vinci didn't build its model from durable skills research. They built it from design thinking methodology, employer input, and deep knowledge of their students. What they constructed aligns remarkably with what the research identifies. The Design Process develops Critical Thinking (through Critique), Creativity (through Conceptualize and Create), and Metacognition (through conscious awareness of one's own thinking process). The Habits of Mind develop Collaboration, Fortitude (through accountability under pressure), and Character (through commitment to quality). And the pathway structure develops Growth Mindset by allowing students to explore, fail, recalibrate, and specialize based on authentic experience. The convergence, once again, points to the same truth: schools that authentically engage with what graduates need tend to arrive at what the research validates.

In Practice: Two Student Journeys

Nadia: From Emerging Leader to Sophisticated Facilitator

By sophomore year, Nadia was already “kind of like a bright star” in campus leadership. Natural initiative wasn't the problem. What she needed to develop was more nuanced: the capacity to lead others whose pace and style differed from her own. Senior year made this visible. Nadia's team partnered with a youth mental health center in Redondo Beach to facilitate art workshops for vulnerable young people. The project demanded everything: researching art therapy approaches, coordinating with professional staff, designing workshop activities that were engaging, structured, and open enough for authentic expression, and then actually facilitating sessions with real participants whose experiences depended on workshop quality.

Teacher Frank, who had known Nadia since ninth grade through her older sister, watched closely. “Nadia is such a go-getter and she likes things a certain way. Sometimes not all group members are at that level. So I've been trying to coach her to help her understand how to make sure to give people space to make mistakes.” Nadia's instinct was to do everything herself. Her growth edge was learning to slow down, solicit input, and build consensus rather than drive forward alone.

The Design Process became her explicit tool. “For our first pitch POL, we laid it out into the four C's: why we care about youth mental health, conceptualizing what we're going to do, we're still in the creation process doing the workshops, and we've already done one so we've gotten the critique of what worked and what didn't.” She acknowledged challenges honestly: “Turnout is something we're struggling with. That critique is helping us prepare to create another one. It's kind of like a little cycle.”

That mature acknowledgment, seeing low turnout as a problem to solve rather than a failure to absorb, demonstrated professional project management thinking.

THROUGH A DURABLE SKILLS LENS: LEADERSHIP · COLLABORATION · METACOGNITION · CHARACTER

Nadia's story illustrates a form of development that doesn't get enough attention: the growth edge for students who are already strong. Her challenge wasn't building basic capability. It was refining sophisticated leadership, learning to facilitate rather than direct, to create space for others rather than fill it herself. Frank's multi-year knowledge of her made this coaching possible. And her honest engagement with workshop “critique” demonstrates exactly the kind of Structured Reflection that turns experience into transferable learning.

Javan: From Career Uncertainty to Professional Architecture Mastery

Javan entered facing the confusion that plagues many teenagers: “I wasn’t sure what to do. I had completely different things, like life goals in mind, either an animator or an architect or an engineer.” Three entirely different paths, each seeming equally possible.

Da Vinci’s pathway system offered something rare: the chance to actually try different fields rather than merely read about them. For a full year during 11th grade, he immersed himself in both graphic design and architecture, comparing not abstract descriptions but his actual engagement and success in each. The decision came through authentic experience and professional conversation: “I talked to my graphic design teacher, and I was like, I do think I want to go to architecture. And then I committed all the way.”

Under Katherine’s guidance, a teacher who approaches her classroom “almost like I’m in an office setting, and I’m teaching employees,” Javan mastered industry-standard software. The validation came during a field trip to an LA architecture firm: “We talked to these people who are actually doing architecture, and they were shocked that we knew SketchUp and Revit and all these things that they use personally.”

But the deepest transformation was internal. “I started looking at buildings as far as design. I was like, oh, I really like the bay window, but I would change it because it’s asymmetric. I started looking at the world in that light as a designer.” He couldn’t walk past buildings without analyzing them. This wasn’t assigned work. It was genuine passion discovered through authentic practice.

THROUGH A DURABLE SKILLS LENS: CRITICAL THINKING · CREATIVITY · GROWTH MINDSET

Javan’s story is the study’s clearest example of the exploration-to-specialization model of Progressive Complexity. Rather than guessing at a career through interest inventories, he experienced multiple fields authentically and chose based on demonstrated engagement. His spontaneous analysis of buildings, the mark of someone who has internalized a professional lens, is what the research calls Professional Identity: not “I want to be an architect” but “I think like an architect.” And his trajectory from career confusion to professional clarity demonstrates Informed Vision grounded in doing the work, not imagining it.

What Makes It Work: Where Da Vinci Excels

Every school in The Path Forward study embraces the three core principles and draws on the four amplifiers to varying degrees. Da Vinci demonstrates all of them. Three stand out as genuinely distinctive.

Full Integration: The Design Process as Organizing Principle

At Da Vinci, skills don’t supplement content. They organize all learning. The Design Process structures every project in every class. Assessment prioritizes process skills: Katherine emphasizes that “professional skills, habits of mind, and design process, those are the majority of their grade.” When grades depend primarily on demonstrating process capabilities rather than content recall alone, students invest accordingly.

The omnipresence is what makes it transformative. Kayla exemplified this through spontaneous personal application: “I’m a big baker. I love to cook and bake, and so I find myself using the design process when I make cakes. I’m a cake decorator. If something doesn’t go the way I want it to go, I go, okay, cool. Let me critique. What didn’t work?” She’s not using the Design Process for a grade. She’s using it because she’s internalized it as a genuinely useful thinking tool.

Former students tell the school they still use the Design Process years after graduation, planning weddings, starting businesses, navigating career transitions. That spontaneous transfer to life outside school is the ultimate evidence that a skill has become durable. It happened because the framework was everywhere, all the time, across such varied contexts that it became students' default approach to any complex problem.

Progressive Complexity: Exploration to Specialization

Da Vinci's four-year arc moves students through a distinctive progression. Freshman year, the food truck project integrates math, English, physics, and art around a single authentic challenge, with heavy scaffolding and supportive audiences. Sophomore year, boat projects require functional products (boats that actually float and race), introducing genuine engineering constraints. Junior year brings professional-level pathway work with industry-standard tools and professional feedback. Senior capstones demand independent community partnerships with real impact.

Kevin's freshman food truck experience captures the starting point: "We had to do the math and calculate how much food and supplies and the truck and the tires would cost. In math and English, we had to do a presentation and write-up about our menu. In physics, we created a motor so the truck would actually work. And in art, we designed and made the truck." Four disciplines, one coherent challenge.

The pathway structure adds another dimension of progression. Two years of broad exploration, where students experience architecture, graphic design, entrepreneurship, and fine arts, give way to two years of deep specialization with professional tools and expectations. This ensures students choose pathways based on authentic experience rather than assumption, and it produces the kind of professional-level capability that shocked working architects when they met Javan.

Attention to Context: Building on LA's Creative Economy

Da Vinci designed deliberately from its Los Angeles context. The 300+ industry partnerships reflect the region's concentration of creative and technology companies. Snap Inc. collaborated on AR filter design. Mattel engaged students in sustainable toy design. Gensler Architecture provided professional-level project critiques. Karl Storz involved students in medical device prototyping. UCLA labs hosted genuine scientific investigations. A dedicated Real World Learning Center staff cultivates and manages these partnerships, recognizing that relationship management requires professional expertise and dedicated time.

The four pathways align with regional career opportunities that students can see in their own communities: architecture, graphic design, entrepreneurship, fine arts. Students aren't preparing for abstract futures. They're developing capabilities for actual career pathways in their geographic area.

For a student body that is 65.6% Hispanic/Latino and 13.9% African American, with 45-50% qualifying for free or reduced lunch, this contextual design matters. The 78% CTE pathway completion rate for Black graduates, among California's highest, demonstrates that focused skill development particularly benefits students often underserved by traditional education. Open enrollment with no prerequisites communicates that every student, regardless of background, belongs in a school organized around professional-level work.

Beyond Skills: Agency, Identity, and Possibility

What Da Vinci ultimately produces extends beyond capabilities. It produces agency, professional identity, and informed vision.

Agency appears in how students navigate the pathway system. Javan didn't have a career chosen for him. He explored, experimented, consulted with teachers, and made an informed decision he owned. Nadia identified a community need, secured a professional partnership, managed a complex project over a full year, and adapted when challenges arose. The structure requires increasing self-direction, and students rise to it.

Professional identity emerges through authentic practice at professional standards. Javan doesn't aspire to be an architect. He thinks like one, analyzing buildings wherever he goes. Nadia doesn't simulate leadership. She facilitates real workshops for vulnerable young people. When professional architects are shocked by a student's software mastery, that external validation confirms an identity already forming through years of authentic work.

Informed vision shows up in the specificity of graduates' choices. Javan knew architecture was right because he'd done the work for three years. Nadia understood community leadership because she'd experienced its demands and rewards firsthand. Kayla's recognition that "the way that we learn things and that process will stick with me, probably my whole life" is a student who understands not just what she's learned but how she learns, a form of self-knowledge that will serve her wherever she goes.

Transferable Insights for School Leaders

Make the framework a methodology, not a poster. The Design Process works because it's applied constantly across every subject, not displayed on a wall and occasionally referenced. Schools adopting any framework should ask: Is this how students actually think through problems, or is it decorative?

Let students explore before they specialize. Two years of broad pathway exposure, followed by two years of deep specialization, produces more confident and better-informed choices than asking 14-year-olds to declare a career direction. The principle applies whether you have formal pathways or not: create authentic exposure to different domains before asking students to commit.

Invest in partnership infrastructure. Da Vinci's 300+ partnerships didn't happen because individual teachers made phone calls. They happened because dedicated Real World Learning Center staff cultivated relationships professionally. Schools serious about authentic experiences need someone whose job is building and maintaining those connections.

Replace some finals with presentations. POLs twice yearly in every class produced roughly 48 formal presentations per student across four years. That volume created genuine expertise through deliberate practice. You don't have to replace every final. Start with one class per term.

A Note on the Model's Limits

Da Vinci Design's results are remarkable. They are also the product of specific conditions: location in the Los Angeles metro area with access to a dense creative economy, charter flexibility within a supportive district, a well-developed school network providing professional development and shared learning, and 20 pupil-free PD days annually enabling project-based learning with fidelity.

Replicating Da Vinci wholesale is not the point. The point is that the underlying commitments, a universally applied thinking framework, exploration before specialization, authentic professional partnerships, mastery-based assessment, and relentless practice of public communication, can be adapted across very different contexts. Da Vinci proves they work. The work for other school leaders is to find their own version of the question: What thinking process do you want every student to internalize so deeply that they use it automatically, long after they've left your building?

This profile is part of a series documenting schools whose approaches have produced remarkable outcomes for students, and whose work, examined closely, illuminates how the capabilities researchers call durable skills develop in practice. It draws on interviews with Da Vinci Design students, educators, and leadership conducted during the 2024-25 school year. All student names are pseudonyms.



PATHSMITH™
DURABLE SKILLS



America Succeeds

1390 Lawrence Street, Suite 200
Denver, CO 80204

www.AmericaSucceeds.org
info@AmericaSucceeds.org

