

Prompt 1: What topic in science do you currently find most interesting, and why? When and how did you become aware of this topic? (150 words max)

I was 13, sitting on the floor with a candle flickering beside me, struggling to finish my homework in the dim light. Frustrated, I asked my mom why we don't have constant electricity. She sighed and said, "That's just how it is here."

That night led me down a path of discovery into renewable energy. I became aware of it fully in high school, when we built a small solar-powered fan. I was hooked. Since then, I've spent hours exploring how solar panels, wind turbines, and emerging green technologies work—how they can be adapted for communities like mine, and the potential of off-grid solutions to power underserved areas. Renewable energy excites me because of its power to solve real, everyday problems. The experience gained from the SSP program will sharpen my passion, connecting me with the skills and opportunities I need to thrive.

Prompt 2: If you have studied physics and/or calculus, briefly describe the specific topics covered in your coursework and/or any related extracurricular study or projects (100 words max)

From chemical reactions in junior chemistry to wave-particle duality in senior physics, my coursework has laid a foundation in core science principles. In math, we've explored algebraic proofs, coordinate geometry, and calculus. I've gone beyond class by attending a renewable energy workshop, where I helped assemble a model solar oven. As part of my school's science club, I've also participated in group experiments involving circuits and energy transfer, often leading the data analysis segment. These experiences have sharpened both my theoretical understanding and practical problem-solving skills.

Prompt 3: Describe the world you come from; for example, your family, school, community, city, or town. How has that world shaped your dreams and aspirations? (150 words max)

I come from a small Nigerian town where power outages are normal, schools often lack labs, and dreams sometimes feel too big for the environment. My parents, though not scientists, value education deeply. They taught me to chase knowledge with whatever resources I could find—even if that meant studying with borrowed textbooks or using my neighbor's generator to complete assignments. My community is resilient, defined by hustle and hope. When I came to the United States on a scholarship, I discovered how clean energy transforms communities, and this has shaped my aspirations. I want to use science to solve power challenges back home. Because my little world taught me that dreams aren't bound by circumstances, and everyone deserves the resources they need to thrive.

Prompt 4: We know you lead a busy life, full of activities, many of which are required of you. Tell us about something you do simply for the pleasure of it. This isn't a trick question. We want to see how you bring balance to your life. (150 words max)

When I need to unwind, I watch movies, read novels, and hang out with my friends. I also write letters to the future. Sometimes they're to myself at 30, sometimes to people I haven't

met yet. I write them in a small notebook I keep hidden beneath my bed, just me and a blue ink pen. It's a space where I explore dreams, moments of joy, and struggles. And in those quiet, creative moments, I feel my peace return.

Prompt 5: Describe any science or math reading, research, projects, or competitions (individual or team) you have done outside of regular coursework.

In Junior high, I started reading science articles and watching TED Talks about renewable energy and physics. I built a mini wind turbine prototype using scrap plastic and a small motor, testing it during harmattan winds. I also joined an online forum for young engineers, where I followed discussions about battery innovation and clean tech. In 2023, I competed in a regional STEM challenge focused on sustainable solutions; my team proposed a solar-powered irrigation system. We didn't win, but it sparked an even deeper commitment to learning how technology can empower vulnerable communities.