

Desert Mirage Academy of Architecture and Design; One School, One Family

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Introduction

Desert Mirage Elementary in Glendale, Arizona, has served PreK-8 students since 1993, embracing diverse cultural and economic backgrounds. To meet evolving educational needs, its facilities require modernization. This report proposes a redesigned learning environment that addresses current challenges and fosters a holistic, meaningful education for all students.

One School, One Family

To come up with the design, we as a group agreed on a theme to which we will anchor all our ideas and design intentions for our school of the future. After choosing a couple of ideas, we decided to go back to the very core idea that drives our school's ideology and practice. That motto is "One school, One family". Having that in mind, we decided that our design will be driven based on the theme family. A family is a group of people that care for one another and provide our needs and nurture us to be the best we can be. Family also teaches us acceptance and inclusivity by celebrating our uniqueness. To visually show this theme, we decided to make most of our design circular or with round edges. When you think about family, one way that families show love and affection is by a hug. Hugging is an important act to show that we care for each other and an act to make one feel safe. That's when we decided to make our building circular to symbolize a hug. Additionally, according to research, a circular building positively affects the brain by activating areas associated with spatial awareness, relaxation, and a sense of security.

The Design Process

The design process began with team members identifying the problem our school is facing with its current structural design. We did research on how other schools developed similar structures and looked for inspiration to make better designs for the school of the future. The team embraced the motto "One school, one family" and ensured accessibility by adding ramps. Ideas like glass walls and open spaces were incorporated after visiting another school. Open areas and glass walls in hallways promote transparency, safety and natural lighting. We then created an initial draft, concept map and models to show our ideas. Using SketchUp, we started creating our 3d model which was checked and critiqued by experts. Revisions of the model were then created until we can produce our final model. Lastly, we presented our design to a bigger crowd to gather feedback and suggestions to make our school design better.

Our School of the Future

Community Environment

Our design fosters problem-solving, collaboration, and communication through circular buildings that symbolize a welcoming embrace and curved outdoor spaces that enhance safety and openness. This architecture not only connects students to nature but also strengthens their bond with the school and community. Shared spaces promote respect and collaboration, while partnerships—such as with Orcutt Winslow—transform areas like the gym and learning spaces into communal hubs that teach valuable life skills for the future.

Learning Environment

Our design highlights a learning environment that encourages peace and relaxation for students. This is done through offering flexible spaces beyond traditional classroom settings. The design promotes creativity, allowing students to work freely in safe outdoor spaces. A typical day in this school will be active, fun, engaging and filled with collaboration, project-based learning, and opportunities to work both inside and outside the classroom. This fosters strong relationships between students, teachers, and the community. Furthermore, our environment supports various learning styles, allowing students to work in groups or independently, breaking away from traditional methods.

Physical Environment

Our design is basically divided into several learning communities: the main building for K-5 and admin building, middle school building, creative and performing arts building, Scholars learning community.

The K-5 building, connected to the admin office, is a two-story circular structure with large windows for natural light. A central library fosters reading and collaboration, while glass hallway walls enhance openness and energy efficiency. Outdoor learning spaces encourage cross-grade interaction.

The middle school also follows this design, promoting efficiency and a calming environment. Connected classrooms reduce transition time and enhance collaboration, while open hallways and outdoor study areas support independent and group learning. A bridge over a lake symbolizes connection and provides hands-on learning opportunities in marine biology and water pollution.

The ESS building offers a vibrant, supportive space for students with special needs. The Creative and Performing Arts community includes a gym with Arizona-inspired colors, a naturally lit art gallery, a performing arts space fostering confidence, and a greenhouse symbolizing resilience through the saguaro cactus.

The Scholars Learning Community features a student center, Exceptional Student Services, teacher's nook, and playgrounds, fostering leadership and 21st-century skills. Desert Mirage is dedicated to an inclusive, collaborative environment where all students thrive.

Conclusion

The proposed redesign of Desert Mirage Elementary School embodies the school's core motto, "One School, One Family," by creating a nurturing, inclusive, and innovative learning environment. The circular architectural design symbolizes a warm embrace, fostering a sense of belonging, safety, and collaboration among students and staff. Prioritizing accessibility, transparency, and student engagement, the design incorporates open learning spaces, natural lighting, and community-integrated areas to enhance both academic and social development. The various learning communities, from the K-5 and middle school buildings to the creative and performing arts center, ESS building, and scholars' learning community, are thoughtfully structured to cater to diverse learning needs. Special features such as the greenhouse, bridge, and outdoor learning spaces connect students to nature and real-world problem-solving experiences. Ultimately, the redesigned Desert Mirage aims to cultivate a future-ready generation by promoting creativity, inclusivity, and a strong sense of community within an environment that nurtures personal and academic growth.