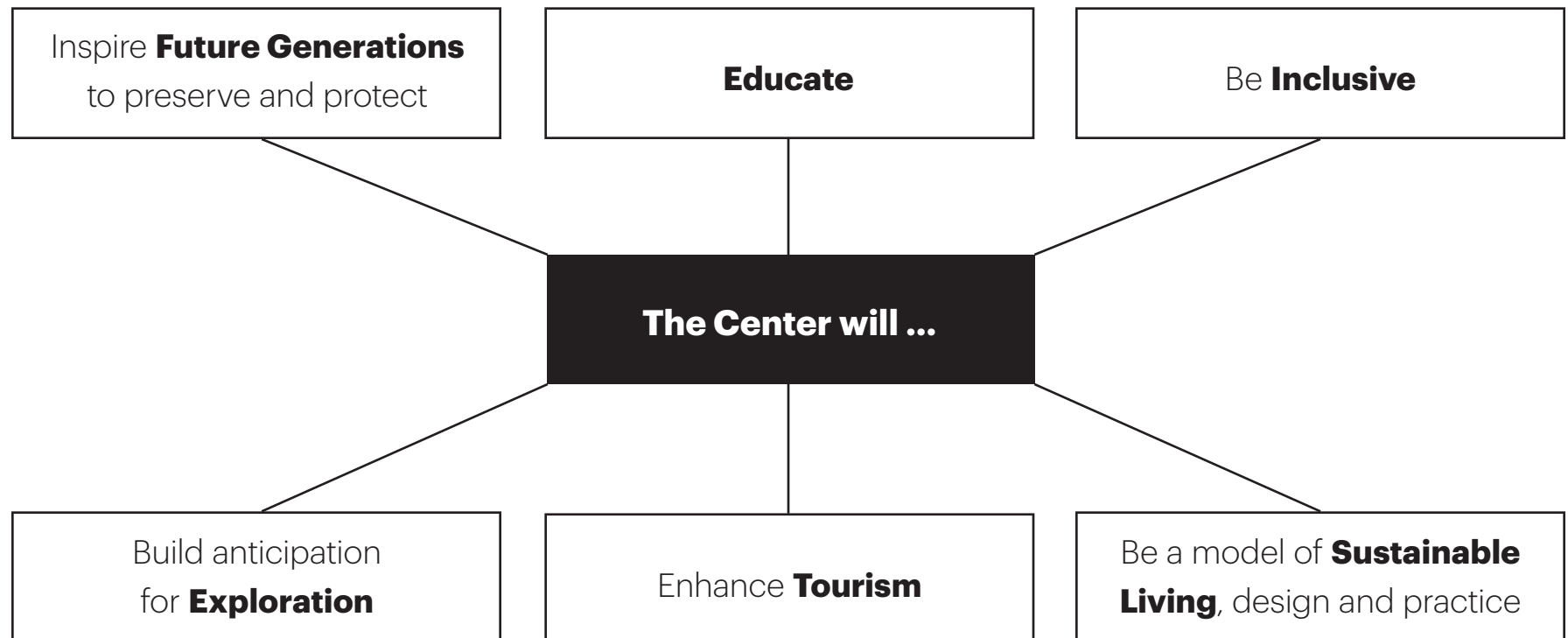

Strategic Framework



Goals

The Center is envisioned to be the focal point for education, research and dialogue about human interaction with arid environments as exemplified in the unique Sonoran Desert.



The Desert Discovery Center inspires us to claim the future in the spirit of possibility: our future and the future of this planet.

The Desert Discovery Center mission inspires the current and especially coming generations to not only take up the challenge, but to claim the future in the spirit of possibility: our future and the future of this planet. We start with the idea that we protect what we love, and love what we know. In the Center, experiences that excite us, rouse emotions, provoke reactions, awaken our senses and make us feel differently can inspire a shift in perspective with enduring impact. Stirring our imaginations and emotional responses can lead to deeply felt connections with ideas and the surrounding landscape. This is the transformative potential of a visit to the Desert Discovery Center.

Ultimately, at the heart of every mission are the people who engage and give meaning to it. The Center's wide-ranging group of stakeholders will be a key piece to creating a sustainable future in the desert—from local residents to visiting tourists, citizen scientists to arid land specialists, families with young children to life-long learners, hikers to armchair enthusiasts. As the world gets hotter and drier, all of us have a stake in better understanding desert environments. The Desert Discovery Center will be a site of international exchange: to share research on desert species, arid environments, and urbanization —particularly for regions facing increasing aridification. For those

who have never taken a hike in the Preserve, or are unable to, the Center will be their first exposure to the undeveloped desert. Dynamic, sensory-inspired experiences and live programming will open this wondrous ecosystem to the uninitiated... and its hidden and hard-to-see facets to everyone.

Education Strategy

The Desert Discovery Center offers people a special opportunity to learn about the desert experience from within the McDowell Sonoran Preserve. At this unique site, the Center facilitates a deeper exploration of the desert around us to inspire critical thinking, contemplation and dialogue around dryland ecosystems and sustainable ways of living. As a core, public service of the Center, educational experiences are designed with a range of learners in mind—from youths to adults, long-time residents to out-of-town visitors, life-long naturalists to professional educators—to pique curiosities, challenge preconceived notions, and broaden perspectives on the desert and our relationship with it. Education programs at the Center empower people of all ages to explore like scientists, investigate our natural and cultural worlds, and become meaningful contributors to our complex global society. The Desert Discovery Center is designed to

accommodate a robust educational program for children ages 3-18 years old; the focus is on fun, hands-on learning activities that foster critical thinking skills and nurture a deeper (and potentially lifelong) interest in science.

At the Sonoran Steps amphitheater, explorers young and old can experience native wildlife up-close with trained handlers. Families can choose from an array of programs, such as: guided on-site tours with Center educators, hands-on workshops and arts-based activities in the Sonoran Room, and exploratory science programs drawing on the Center's collections (eg. fossils, plant specimens, music, etc.) at the Center PlayLab.

An educator's focus group conducted in February 2017 revealed that local teachers welcomed additional resources on desert ecology. They described how many of their

students know more about animals in other parts of the world than the ones in their own desert habitat. One teacher expressed the concern that "our kids don't understand the relevance of living in the desert." Another educator stated, "We've fallen in love with the desert, and we want them to love it too." Pre- and post-visit Center lesson plans help teachers make the most of class field trips to the Center, which give students an opportunity to apply concepts introduced in the classroom to its environmental context.

Education Strategy

The Desert Discovery Center lesson plans align with the Scottsdale Unified School District's curriculum and support Arizona and National Standards to create a strong foundational basis for future learning in the McDowell Sonoran Preserve. On-site school programs incorporate the Preserve itself whenever possible, and focus on tactile, hands-on desert experiences, applying scientific investigation to real specimen collections, and using science in their everyday lives.

Older students have an opportunity to combine scientific inquiry with digital media production, and to become the Center science ambassadors as teen docents and digital content producers. The Center also connects people to citizen science projects currently conducted in the Preserve by the McDowell Sonoran Conservancy Field Institute, and provides a venue for citizen scientists to come together and pursue shared interests.

The Center's educational reach goes beyond the site itself, extended through: teacher training programs, lesson plans and instructional tools for educators (eg. photographs, models, maps, touchable specimens, etc.), live interactive video broadcasts, and virtual student-exchange programs with other desert communities. Working with Arizona State University's Julie Ann Wrigley Global Institute of Sustainability's Ecology Explorers program, the Center has developed a pilot program that provides professional development to Valley K-12 educators and works with them to generate new lesson plans. In addition, Scottsdale Community College students will be trained to facilitate classroom lessons at area schools, forming the next generation for science educators and mentors.

Arizona State University's Global Drylands Institute

With the establishment of Arizona State University's Global Drylands Institute (GDI) at the Desert Discovery Center, local and global citizens will benefit from ground-breaking, interdisciplinary arid lands research and conservation at the McDowell Sonoran Preserve. The Institute will elevate world-wide understanding of desert ecosystems, and improve our ability to preserve and sustainably manage them in the face of unprecedented change. Drylands contain a large and rapidly increasing portion of the world's human population; and GDI's use-inspired research will draw sustainability paths for the Valley and for different dryland communities around the world.

The Institute takes an interdisciplinary approach to living in the desert, drawing from a collaborative synergy between ASU's College of Liberal Arts and Sciences and the Julie Ann Wrigley Global Institute of Sustainability to better understand our connections to desert organisms and ecosystem processes. Proximity to the

Preserve supports research on such topics as: urban ecology and sustainability, saguaro biology, bat biology, hydrology, soil crusts, and sustainable tourism, as well as, the training of a new generation of leaders, students and practitioners in the field. Led by ASU faculty, the Institute will support and host the activities of post-doctorate fellows, research teams, mid-career scientists, and early-career scholars that will contribute to our understanding of the mechanisms that support the high-level functioning of drylands. ASU has developed partnerships with both research institutions around the world and local naturalist organizations to lead the field in applying integrated approaches to the challenges of global sustainability.

At the Desert Discovery Center, the Institute will have a valuable venue for immersive public engagement and a direct connection to a diverse base of stakeholders through its Open-Door Field Station labs; research-driven content for conferences, public programs and

exhibitions; curriculum support for young (K-12) learners; immersive virtual field-trips; and citizen-science and docent-training programs such as ASU's "Desert Keepers." Desert Keepers are graduate and undergraduate student scientists who work with expert advisors to develop on-site research projects that can benefit, and benefit from, a public component, whether through public programming and/or citizen science projects. Student docents guide visitors through an experience of the Center from an accessible, scientific point of view, fielding and prompting new thinking around people's questions. GDI's commitment to research, education and innovation at the Center establishes the Preserve, the Desert Discovery Center and City of Scottsdale as the global exemplar for proactive and sustainable preservation of arid lands and urbanizing areas.