Grant Title: ADVANCING INFORMAL STEM LEARNING (AISL)

Funding Opportunity Number: NSF 12-560. CFDA Number(s): 47.076.


Area of Research: Research and development of innovative and field advancing out of school STEM learning and emerging STEM learning environments.


Amount: Research: Up to $1,500,000. Pathways: Up to $250,000 total. Full-Scale Development: Up to $3,000,000 if a research component is included. Broad Implementation: Up to 3,000,000 if a research component is included. Estimated Number of Awards: 34. Including 6 Research, 6 Pathways, 13 Full-Scale Development, 2 Broad Implementation, plus approximately 7 conference, EAGER, and Rapid awards

Length of Support: Research: One to five years. Pathways: Up to two years. Full-Scale Development: One to five years. Broad Implementation: One to five years.

Eligible Applicants: Universities and Colleges. See the full announcement for a complete list of applicants.

Summary: The Advancing Informal STEM Learning (AISL) solicitation invites investigators to propose ideas, concepts, models, and other opportunities for learning and learning environments that will capture the creative and innovative potential of informal STEM learning for the future, and potentially forge new connections across all STEM learning communities. Leveraging new and emerging technologies, STEM learning can now be located and situated wherever the learner is and customized to meet the learner's educational needs. New interdisciplinary collaborations and partnerships for informal learning among academia, industry, and government can greatly advance our nation's goals to produce a scientifically and technologically literate population and workforce. The AISL program supports the following research and/or development on learning and learning environments for the future, such as: LEARNING: (a) expand access to the highest quality STEM resources for all Americans and advance out of school participation of Historically Black Colleges and Universities, Hispanic Serving Institutions, and Tribal Colleges; (b) contribute new research and/or development to the knowledge base, models and/or learning strategies that advance informal learning; (c) explore and better understand the models that integrate a variety of learning platforms for targeted audiences and communities; (d) engage the public in novel, real-time, and simulated experiences with scientific phenomena and participation in the collection of scientific data where such data can contribute to scientific discoveries once reserved only for science researchers; (e) create pedagogical links between informal learning and school-based learning that advances more seamless and personalized STEM-learning across settings and that can transcend the time constraints and physical boundaries of traditional education; (f) build capacity of STEM informal education professionals, volunteers, parents, and caregivers, and those who facilitate the learning of others. LEARNING ENVIRONMENTS: (a) advance meaningful STEM engagement through exhibits, programs, and other experiences at science centers, museums, zoos, aquariums, youth and community centers, and many other informal and out-of-school settings; (b) advance the design and development of environments for learning anytime, anywhere, leveraging advances made in adaptive and assistive technologies, virtual and augmented reality, games, visualizations, simulations, mobile phones and computers, and global online social networks; (c) advance science communication to the public via the Internet, broadcast media, podcasting, online scientific databases, and emerging global social learning networks that engage the public, evolve new partnerships, and reach broader audiences.
