

Design for everyone

PRINCIPLES



Make it accessible

- Being approachable
- Accommodating diverse needs



Embrace diversity

- Showing the diversity of people who engage in science
- Fostering diversity among participants



Be inclusive

- Developing empathic understanding
- Making it meaningful

Design for everyone builds on the acknowledgement that people are diverse and that everyone should have opportunities to participate in science learning no matter what their personal or social circumstances are. Supporting equitable approaches to science learning outside the classroom demands a special effort to ensure that science learning is accessible, diverse and inclusive.

SCIENCE
LEARNING
OUTSIDE
THECLASSROOM

Design for experience

PRINCIPLES



Make it matter

- Showing the relevance of science
- Building on personal interests



Keep it engaging

- Triggering positive emotions
- Making concepts tangible
- Encouraging open-ended exploration



Inspire and motivate

- Guiding learning
- Fostering learners' self-confidence



Build social learning environments

- Encouraging sharing and collaboration
- Cultivating a community feeling

Great learning experiences are meaningful, engaging, inspiring, and trigger further learning. In education, design for experience is also about the environment where the activity takes place. Many contexts in which informal science learning happens are social spaces. Facilitating successful learning experiences in these contexts requires paying attention to what inspires and motivates your participants, especially in a social context.

Design for growth

PRINCIPLES



Create pathways

- Creating continuity and multiple entry points
- Bridging different disciplines



Support identity building

- Recognizing learners' achievements
- Raising awareness of possible futures



Promote learner autonomy

- Supporting learning to learn
- Boosting transversal competencies



Assess your practice

- Setting goals and monitoring progress
- Reflecting on your practice

Lifelong learning is as important for learners, as for the education practitioners. In science education outside the classroom, the learners and educators' sustained growth should be cultivated. In the case of learners, this means helping them become autonomous, as well as building pathways for learning and supporting their science identities. In the case of educators, the emphasis is on developing self-evaluation skills that will help them improve their practice.

SY
STEM
2020