# Kansas City's STEM Learning Ecosystem

The STEM Ecosystems initiative is a national effort to engage young people in **science**, **technology**, **engineering** and **math** through strong interconnected community networks.

A STEM learning ecosystem helps educators, parents, and other community players connect the dots between STEM learning in the classroom with informal learning students encounter every day after school, in community programs, and at home.

Our region's learning ecosystem is called **STEM Connect-KC** and the KC STEM Alliance serves as the convener, working with a leadership team to encourage all parts of the community to actively engage in this work.



## What can a STEM Learning Ecosystem accomplish?

- >> Design and connect STEM learning opportunities to reflect the reality of young people's lives: learning not just in school but out-of-school, online, at home and in daily life.
- >> Connect preK-12 STEM learning (both in and out of school) to post-secondary and STEM career opportunities.
- >> Nurture young people's "STEM identity," or self-perception of competence in STEM, by engaging them in challenging, relevant problem-solving on issues they care about, and then publicly recognizing them for their efforts.
- >> Seek out and engage young people historically underrepresented in STEM fields and work together to address barriers that hinder participation.
- >> Ensure young people have opportunities to meet and build mentoring relationships with STEM professionals from similar backgrounds who serve as role models. Ensure that young people learn, from an early age, about a range of STEM career possibilities.
- >> Help parents and guardians support their children's STEM success by understanding the pathways to further STEM education and careers and by knowing how to access high quality STEM experiences.
- >> Match STEM learning pathways to the changing needs of STEM higher education and workforce.

#### **OUR VISION**

To create a vibrant STEM-literate community that understands and uses science, technology, engineering and math in meaningful ways to improve lives.

### **OUR MISSION**

To ensure access and equity to quality STEM experiences for all.

#### **OUR APPROACH**

- 1. Find and share high quality best practices
- 2. Decrease duplication of efforts
- 3. Leverage community assets
- 4. Build on strengths of partnering organizations



## How the ecosystem works

#### **LEADERSHIP TEAM**

The leadership team represents various parts of the ecosystem:

**Big Brothers Big Sisters** BioNexus KC

Full Employment Council-KC

Kansas City Kansas Public Schools

Kansas City Public Library

Kansas City Missouri Public Schools

Kansas Enrichment Network

Kauffman Foundation/Real World Learning

KC Civic Council/KC Rising

**KC** Digital Drive

KC Social Innovation Center

**KC STEM Alliance** 

Mid-America Regional Council

PREP-KC

PTA/Parent Representative

Science City at Union Station

SchoolSmart

**STARTLAND** 

**UMKC Urban Education Research Center** Workforce Partnership

**KC STEM Alliance** coordinates the leadership team, convenes meetings and communicates what's happening across the STEM learning ecosystem to the community.

### JOIN THE EFFORT

Share your information for STEM Connect-KC, join a work group and collaborate with others!



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#### 2021-22 WORK GROUPS

#### FAMILY ENGAGEMENT & REMAKE LEARNING DAYS

Parents and trusted adults play a particularly important role in introducing and supporting young people's participation in STEM education. Remake Learning Days Across America is an opportunity to increase family engagement through multiple, informal STEM and arts events and experiences in neighborhoods throughout the Kansas City

By creating a critical mass of events over a 10-day period with multiple, personal points of engagement, learners of all ages can sample fresh ways and things to learn alongside their parents and caregivers while also discovering multiple places and spaces to continue their STEM learning. This work group coordinates Kansas City's participation in Remake Learning Days and also will look at ways to increase family engagement

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#### ADDRESSING THE GENDER **GAP IN STEM**

Although work to reach girls with STEM opportunities is progressing, significant socio-economic, racial and environmental barriers remain.

This work group meets regularly to share best practices, raise awareness and leverage their respective networks to reach more girls with quality STEM experiences and mentors.

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#### ADDRESSING THE RACIAL **GAP IN STEM**

A significant racial gap exists both in STEM professions and in learning spaces. All students deserve high quality, equitable and inclusive STEM learning experiences, both in and out of school.

Closing that gap requires strategic and intentional change at all levels. Join this community of practice to connect with others engaging in this work.

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#### REGIONAL DATA DASHBOARD

Partners in the region are looking at ways to put systems and partnerships in place to create a robust STEM data dashboard that can tell the story of STEM education in Kansas City. As in other communities, the goal is to use this data to assess student achievement and persistence, identify gaps and look for policies and strategies that work, especially for under-represented students of color.

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