COMMUNITY ASSET MAPPING

Community asset mapping can help identify all of the entities in a community contributing to Science, Technology, Engineering, and Mathematics (STEM). The process can be done incrementally, resulting in a growing list of resources available to community members interested in developing a local STEM Ecosystem. This facilitator guide provides step-by-step instructions and examples for creating a local asset map with members of your community that represent different aspects of STEM and STEM careers. The Kentucky Environmental Education Council has a great 'how to' guide for creating networks for environmental education (shared in the References section of this document).

Goals

- Identify STEM-related assets that are currently available to youth in the community.
- Co-define existing and potential STEM learning connections between entities (including individuals, institutions, and organizations) and across sectors (beyond formal schooling to any place where STEM learning might occur).
- Explore where new community partnerships would be helpful to support youth awareness of STEM and computing career pathways.

Time Required

- 20-30 minutes for making the map (Part I); 60 minutes for analyzing (Part 2), and 10-15 minutes for revising/revisiting in subsequent sessions (Parts 3 & 4)

Materials

- Large-format map of the community
  - The map should have labeled towns, cities, and county boundaries.
- For in-person meetings: sticky notes, pens/pencils

Prep

- Locate and print a map of the community in which you are working.
- Before facilitating Part 2, create a table to organize the assets identified in Part 1.

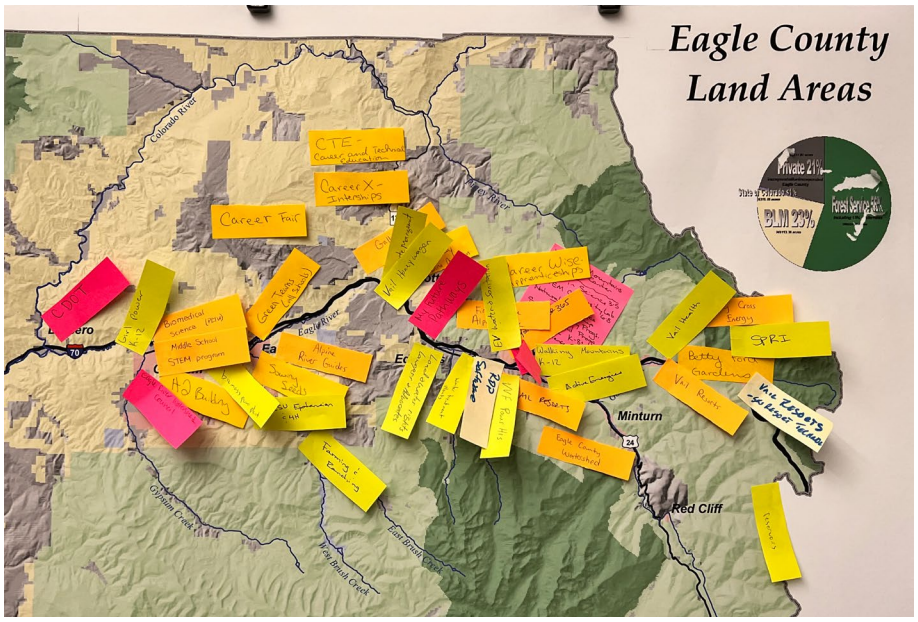
Directions

Part 1: Creating an Asset Map

1. Explain that we will have an opportunity to discover the many STEM opportunities and organizations in our community by creating an asset map.
2. Share the Features of Asset Mapping listed below and describe each feature in your own words.

   Features of Asset Mapping:
   - **Asset-Based:** Uncovers services, talents, skills, and resources found in the community right now.
   - **Internally focused:** Relies on the community's assets, not on those found outside of it.
   - **Relationship Driven:** Seeks to build linkages among local people, institutions, and organizations.
3. Instruct the group to focus on STEM in your community for this exercise. Include STEM learning, career learning, workforce/mentor support, STEM opportunities, and assets.
   - Encourage the group to use an expansive definition of STEM.
4. Direct the group's attention to the local community map. For in-person meetings, a printed map can be hung on a wall in the meeting space. Or, use a projector to display a digital map on a whiteboard. For virtual meetings, provide access to a shared digital map and use a collaborative tool (such as Miro or Google Jamboard) for each participant to add content.
5. Provide 10-15 minutes for participants to write STEM community assets on sticky notes and stick them to the map.

6. In small groups, have participants identify patterns on the map. Ask:
   - What do you notice? What do you wonder? (thinking about different age groups, towns/schools/locations)
   - Where are our strengths?
   - Where are there fewer stickies/opportunities?
   - Where are the opportunities located? Where do the youth typically underserved in STEM live and go to school? Is there a relationship?
   - What is the history of how these developed?
   - What connections, if any, exist between these various entities?
7. Conduct a short debrief with the whole group, asking each table to share what was discussed in small groups.



This example Community Asset Map was created during the STEMCC project by the following community partners: STEM program providers, educators, guidance counselors, school district leadership, high school students, parents, local business representatives, Community College representatives, and the research team.

Part 2: Analyzing the Information and Summarizing It for Your Partners

1. Create a table that organizes the assets identified on your map into a list with space to include contact information and notes about each asset.
   - Consider sorting the assets into useful categories, such as sector or location.
2. Research the assets included in the map and add details to the table before your next meeting. You might detail how these organizations participate in youth outreach or contacts you have made with people from these organizations.

Part 3: Gather Input and Revise the Map

1. Share copies of the asset map from the last meeting, including the table you created for Part 2.
2. Invite returning and new participants to review the asset map and add any additional sticky notes based on their knowledge of STEM opportunities or organizations from the community. Ask for participants to record any connections to these organizations or contacts that they may have.
3. If students are present in your group, ask them to indicate opportunities from the map that were previously known or unknown to them. Questions could include–
   - What is visible to you?
   - What is accessible to you?
   - Are there barriers to you participating in or knowing about these opportunities?

- What interests you? (career opportunities, family connections, hobbies)

4. If there are no students in your group, ask each participant to share the map with a middle or high school student they know and gather information based on the suggested questions. Have them report back to the group at the next meeting or share asynchronously via email or digital shared workspace.
5. Alternatively, ask participants to put on their "student hat" and imagine which of these opportunities would be accessible/inaccessible to middle and high school youth in the community.

Part 4: Generate Ideas for New Connections

1. In small groups, choose some of the opportunities on the asset map and discuss the nature of each opportunity and how the youth would engage with each. Answer questions such as:
   - What does the pathway for that opportunity look like?
   - What would opportunities for further/deeper exploration look like?
   - How do organizations compare with the opportunities listed?
   - Brainstorm possible career paths for youth within this STEM ecosystem.
     - Where are the entry points?
     - Where could youth go deeper?
     - What opportunities are we willing and ready to start working on in the near term?
2. Conduct a short debrief asking each table to share what was discussed in small groups.
3. In a follow-up communication, summarize the meeting outcomes and action items.

References

- Asset Mapping Workbook - Community Legacy Program, Community Outreach of Our United Villages.
- Regional EE Networks: A How to Guide (pdf), Kentucky Environmental Educational Council.