

STEM

with Professor Antwan Daniels
and Dr Tammie May

Talking points

Knowledge

1. What percentage of US undergraduate students attend community colleges?
2. What topics were discussed in the STEMinar hosted in April 2026?

Comprehension

3. What is asset mapping and why is the team at Metropolitan Community College, Kansas City (MCC) using it?
4. Why are community colleges' research capabilities often overlooked, and how is the EPIIC grant hoping to change this?

Application

5. If you were starting a science club at your school, how could you use asset mapping to identify its strengths?
6. Based on the advice in the team's article, what steps could you take to get involved in STEM research?

Analysis

7. How do non-scientific roles such as accountants contribute to successful scientific research?
8. Why does Antwan believe that collaboration across disciplines and industries is so vital to the STEM ecosystem?

Evaluation

9. Which piece of advice from the article resonated most with you? How might it help you succeed in a STEM career?
10. To what extent do you think a successful career in STEM relies on good team work, and why?

Activities

Map your own assets

The team at MCC uses asset mapping to shift their thinking from "What do we lack?" to "What do we have to offer?" This process helps them identify their strengths – like skilled staff, lab facilities or community connections – so they can build partnerships from a position of confidence rather than need.

Your task is to apply this same thinking to yourself. Imagine you're preparing to join a STEM project, research group or career path. What 'assets' could you bring? Consider the following:

Skills: What are you good at – technical abilities, problem-solving, communication, organisation?

Interests: What STEM topics or questions genuinely excite you?

Connections: Do you know anyone – teachers, family, community groups – who could support or collaborate with you?

Resources: What tools, technology or opportunities do you already have access to?

Write a short personal asset map (150–250 words) listing at least four assets across these categories, then explain how you could use one of them to start or contribute to a STEM project.

Create your own STEMinar

Imagine you've been asked to organise a STEMinar for your own school or college – an interactive event that brings students face-to-face with scientists, researchers and entrepreneurs to explore STEM topics beyond the regular curriculum, just like the events run by the team at MCC. Your task is to design your own STEMinar from scratch.

Consider the following:

Topics: What STEM subjects or real-world issues would you want to explore? Think about areas that excite you, affect your community or connect different fields.

Speakers: Who would you invite to talk about these topics? They could be scientists, doctors, entrepreneurs, engineers or even local professionals with relevant experience.

Purpose: Why have you chosen these topics and speakers? How would they benefit students at your school?

Write a short plan (150–250 words) outlining your STEMinar, including at least two topics, two potential speakers and a brief explanation of why your choices would inspire and inform your fellow students. When you're done, consider how you could make your proposed STEMinar actually happen!

More resources

- Learn more about the US National Science Foundation EPIIC grant: nsf-epiic.org
- Listen to Antwan talking about chemistry education: youtube.com/watch?v=6mkVHjkVqGk&feature=youtu.be