Chapter 3

Reflection questions

1. What analogy can you use to explain the concept of a STEAM learning community? Provide an example of how the STEAM learning community connects to the core principles in the ESEM framework.
2. In what ways does the STEAM learning community shape curriculum and instruction?
3. Reflect on the three tools introduced in the chapter (Multilingual Learner Profile, STEAM Asset Mapping, and Equitable STEAM Infrastructure). How might these tools support the development of an inclusive STEAM learning community? What challenges might arise in implementing them, and what strategies could help overcome these challenges?

Recommended activities

1. Activity: Creating a Multilingual Learner Profile

What: Use a Multilingual Learner Profile Template to document a multilingual student's language backgrounds, literacy skills, and learning preferences.

How:

- Identify partners to contact information about the student's linguistic and cultural resources.
- Reach out to partners and document the information for the ML profile.
- Develop an action plan to integrate the information in this profile to your STEAM lesson planning and classroom interactions.

2. Activity: STEAM Learning Community Mapping

What: Work with your colleagues to identify and visualize the diverse strengths, backgrounds, and assets within your own STEAM learning communities.

How:

- Draw a "STEAM Community Map" that includes students, families, school staff, and local partners.
- Identify and document funds of knowledge each partner brings to the STEAM learning community.

- Discuss strategies to leverage these diverse assets and foster collaboration to enhance STEAM learning.

Resources in the chapter which includes Extension of LP or detailed unit/IP (Templates)

1. Multilingual Student Profile Template

Student Information

Category	Details
Name & Pronunciation	
Country(ies)/Region(s) Lived/Visited Since Birth	

Educational Background

Education Type	Country(ies)/Region(s)
Education in English	
Education in Language(s) Other than English	

Language & Literacy Practices

1. Languages Used Outside of School

Category	Details
Language(s) Exposed Outside of School	
Home Language(s) & Literacy	

2. Home Language(s) Proficiency

Skill	Proficiency Level (Beginner/Intermediate/Advanced)
Speaking & Listening	
Reading & Writing	

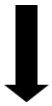
3. Additional Language(s) & Literacy

Skill	Proficiency Level (Beginner/Intermediate/Advanced)
Speaking & Listening	
Reading & Writing	

Significant Events During Childhood That May Impact Learning

(At home or related to the country of origin)

2. Template for STEAM Learning Community and Applications for Curriculum and Instruction

Synthesis and Application	ML profile	STEAM Asset mapping	Equitable STEAM Infrastructure
	• What is the background of the student and family? • What is the students' educational background? • How does the student engage in language and literacy practices both within and outside of the school ? • What are significant events that have played a role in shaping the student's identity?	• How can we acknowledge and celebrate contributions that have been historically excluded? • How is diverse representation of personnel reflected in the STEAM asset mapping? • In what ways are STEAM resources utilized to promote equity? • How does community engagement align with an equity lens in STEAM initiatives?	• What are barriers that affect MLs' access to STEAM programs and resources within STEAM infrastructure? • How are professional development programs tailored to meet identified needs? • What types of curriculum and instruction resources are available to support STEAM education? • How are community partnerships established and maintained to enhance STEAM initiatives?
			
Assets and resources from MLs, families, school, local, and global communities			
Support in place to ensure equity and social justice in STEAM education			
Unit topic			

Standards	
Outcome/impact to share with students and families (provide the information in MLs' primary language)	
Instructional activities	

Related resources

The Argonne National Laboratory STEM asset mapping project that provides educators with valuable STEAM asset information on Chicago's south side:

https://www.anl.gov/reference/argonne-in-chicago-stem-asset-mapping-project

Geographic Information System (GIS) to visualize local assets, identify collaboration opportunities, and enrich educational experiences (e.g., GIS for schools

https://www.esri.com/en-us/industries/k-12-education/overview

Field museum's community outreach program (https://www.fieldmuseum.org/register-your-field-trip-group

TESOL 6 principles, Getting to know your learners activities:
https://www.the6principles.org/the-principles/principle-1/

TESOL resource center with resources for educators of MLs: https://www.tesol.org/resource-center/?__hstc=222032007.2b9d9cc8f1dbb3dc6eee1b24962a88d4.1738169304938.1738169304938.1738169304938.1&__hssc=222032007.1.1738169304938&__hsfp=1786546158

Related readings

González, N., Moll, L. C., & Amanti, C. (Eds.). (2005). *Funds of knowledge: Theorizing practices in households, communities, and classrooms.* Lawrence Erlbaum Associates Publishers.

WIDA. (2024). Understanding multilingual learners. https://wida.wisc.edu/teach/multilingual-learners

WIDA. (2024). Multilingual learners enrich our learning and lives. https://wida.wisc.edu/news/multilingual-learners-enrich-our-learning-and-lives