**LaCuKnoS Flipped Observation Guide**

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| **LaCuKnoS Focus** | **What does this look like and sound like during the activity (what does the teacher or students say or do?)** |
| **Language Development for Science Communication**  Tools:  ☐ language boosters  ☐ multilingual concept cards  ☐ investigation summaries  ☐ multimodal concept maps  ☐ multimodal science communication guide  Practices:  ☐ explicit language choices  ☐ translanguaging  ☐ multiple modalities  ☐ STEAM integration |  |
| **Cultural & Community Connections to Science**  Tools:  ☐ oral history interviews  ☐ theater games  ☐ role play scenarios  ☐ investigation role cards  ☐ family home learning tasks  ☐ community walk guide  Practices:  ☐ family engagement  ☐ place based learning  ☐ role playing  ☐ explore STEM careers |  |
| **Knowledge Building for Informed Decision Making**  Tools:  ☐ social problem solving task  ☐ evidence & emotion guide  ☐ data visualization tools  ☐ scientist stories  ☐ STEM careers guides  Practices:  ☐ explore solutions to community challenges  ☐ apply evidence to daily decisions  ☐ data visualization  ☐ self visualization |  |

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| **Other observations or reflections?** |

**Definitions & Descriptions of Tools & Practices**

**LaCuKnoS Tools**

***Language Booster*** – short, high interest reading meant to engage students in the topic, to provide some important background knowledge and to introduce key concepts

***Multilingual Concept Cards*** – multilingual word cards that describe key concepts through a combination of kid-friendly definitions in multiple languages, multimodal images, and a contextualized sentence

***Investigation Summary*** – a graphic organizer meant to help students pull together and synthesize ideas from the activity

***Multimodal concept maps*** – a specific graphic organizer showing how concepts connect for the learner – we use our bodies, physical objects and other multimodal approaches

***Multimodal science communication tool*** – a set of discourse moves that highlight ways to share and clarify ideas, listen more carefully and reason more deeply with others

***Oral History Interviews*** – questions to ask family members or other community members to gather other people’s perspectives and experiences

***Theater Games*** – a set of active and collaborative games for building community, deepening communication skills, and exploring our similarities and differences

***Role Playing Cards & Scenarios*** – opportunities for students to learn about and act out the perspectives of others as they consider topics of interest

***Family home learning tasks*** – opportunities for students to take home activities to do and discuss with family members. A way to share together about science.

***Community Walk guide*** – directions for exploring some aspect of students’ local community to make connections to topics of interest such as community strengths and challenges

***Social problem-solving tasks*** – model lessons that highlight the role of STEM in understanding and proposing solutions to pressing local problems & challenges

***Evidence and Emotion Guide*** – a guide for integrating both evidence and emotion into our discussions about science in our lives and communities

***Data visualization tools*** – various ways to represent and share about data that have been collected to help interpret their meaning and share this meaning clearly with others

***Scientist stories*** – picture books that relate the life stories of scientists and how they became interested in the work that they do

***STEM Careers guides*** – model lessons that teach about STEM careers and the future of STEM in our lives

**LaCuKnoS Practices**

***Explicit Language Choices*** – thinking about how our audience, topic and purpose should guide our language choices

***Translanguaging*** - using all the language resources we have available to make and communicate meaning

***Multiple Modalities*** – adding opportunities for sharing ideas using both linguistic and non-linguistic (e.g., kinesthetic, artistic, etc.) approaches

***STEAM integration*** – making artistic and creative aspects of science and technology more visible

***Family engagement*** – seeking ways to connect family experiences, skills, and knowledge with STEM

***Place-based learning*** – recognizing that context matters for learning and that making connections to places students know can make learning more meaningful

***Role Playing –*** taking on the role and perspective of someone else can provide new insights and new ways of understanding

***Explore STEM careers –*** thinking about how STEM may fit in and support our goals for our future education and work

***Explore solutions to community challenges –*** discussing community challenges, learning more about them, and considering multiple possible solutions

***Apply evidence to daily decisions –*** building on science knowledge and local knowledge to help make good decisions for ourselves and our communities

***Data Visualization*** - technology has made it much easier to collect a lot of data on almost any topic – technology also gives us many new ways to represent that data

***Self Visualization*** -support for imagining yourself in the future – what will you be doing? what will you care about? How might STEM play a role in your future?