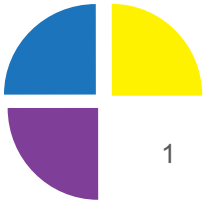
Language & Literacy in STEM

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01
We’re All Language Teachers

Language is the Heart of Deaf Education

A. One of the key reasons Deaf schools/programs exist is to provide language access!
B. Most schools represented here espouse the ASL/English multilingual/multicultural teaching philosophy.
C. Language delays and deprivation contribute to a wide variety of academic, social, and functional difficulties for students.
D. ALL educators in Deaf schools/programs should be building the language and literacies of our students.

STEM is the “Safe” Place to Build Language

A. We are NOT English class. That’s a good thing ;)
B. STEM subjects are a “safe” place to build and use language. We are content and world knowledge language heavy, but we are also visually and kinesthetically more accessible to that language.
C. We are NOT the background to what the English and ASL instructors are doing - we are a key partner is parallel language building and modeling!
D. We have a responsibility to *use* and *teach* language in ways that build a student’s overall language proficiency.

What do we do?

This is what we're going to discuss today:

1. Using language frameworks to consider what we're doing.
    a. I picked the Language Abilities and Approaches Wheels and the Deaf Reading Rope for today.
2. What shifts can we easily implement in our approaches to teaching and learning?
3. Think, Share, Prepare!

02
LAAWS Framework

Language Abilities and Approaches Wheels

The Clerc Center at Gallaudet has developed a research-backed approach to understanding what teachers need to do to support language growth in students.

These LAA Wheels are to be considered for comprehension/composition of language for ASL Signacy, English Literacy, and English Oracy.



https://clerccenter.gallaudet.edu/resources/language-abilities-and-approaches-wheels/

Whole Child

Language isn't an isolated event, it's part of the whole experience of child, not just them as a student. Teachers need to consider:

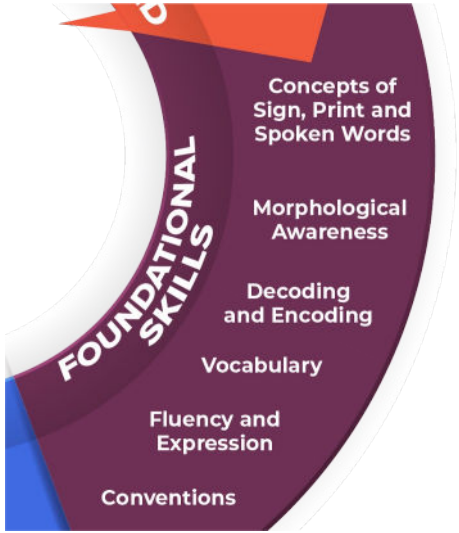
- **Motivation for Language Learning**: Making learning language engaging and desirable.
- **Language Use**: Be intentional about language learning activities and the types used.
- **Knowledge Building**: Focus on multiple skills of language learning and cross-content skills.



Foundational Skills

Part of learning language is understanding the building blocks of that language. Teachers (even in older grades) need to teach and explore:

- **Concepts of Words**: What is a “word” and how do you make/understand/use it?
- **Morphological Awareness**: What are the pieces of words and how do you use them?
- **Decoding & Encoding**: How do you decide what a word means and how do you express words?
- **Vocabulary**: Give students a rich, varied vocabulary.
- **Fluency & Expression**: Help students develop smooth, rich, meaningful expression.
- **Conventions**: Grammar. Got to know it.



Experience

Students need to experience a wide variety of language usage, content-specific literacies, and interactions with others. Teachers need to consider:

- **Structures and Genres**: Gotta catch ‘em all! Fiction & nonfiction and ALL the types of writing across ALL subject areas.
- **Comprehension Strategies**: Teach strategies for making sure they understand what they are viewing/reading and how to fix misunderstandings or missed information.
- **Processes and Strategies**: Use the composition process (planning, organizing, editing, revising) for expressing language.



Instructional Design

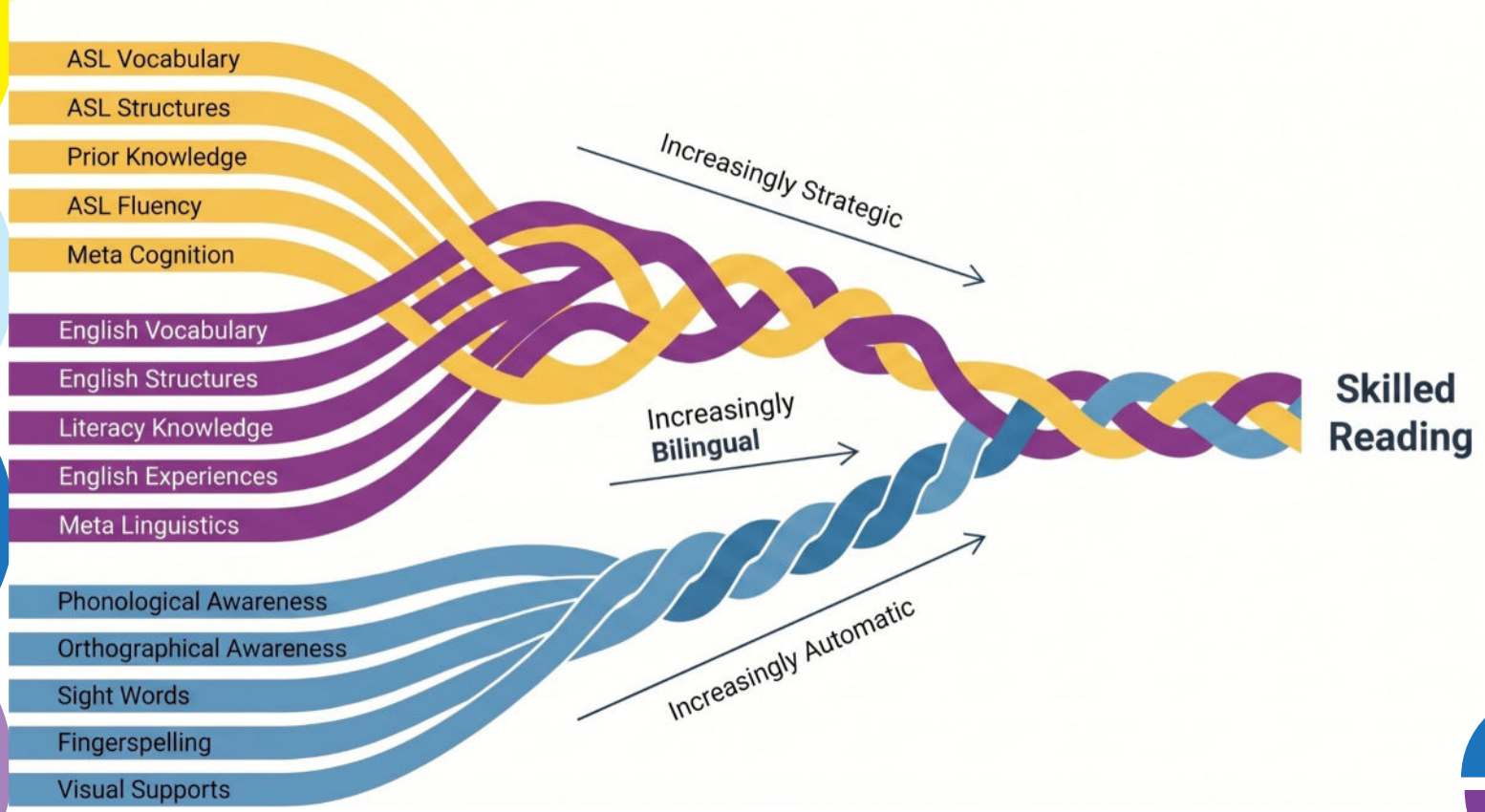
Teachers need to be purposeful and intention about how they design their teaching bilingually. Consider:

- **Classroom Organization and Time Management:** How do you plan in language activities, how do you support both languages, how much time does each language get?
- **Assessments for Instruction:** How do you assess the content area bilingually? How do you assess sign language? How do you assess English language?



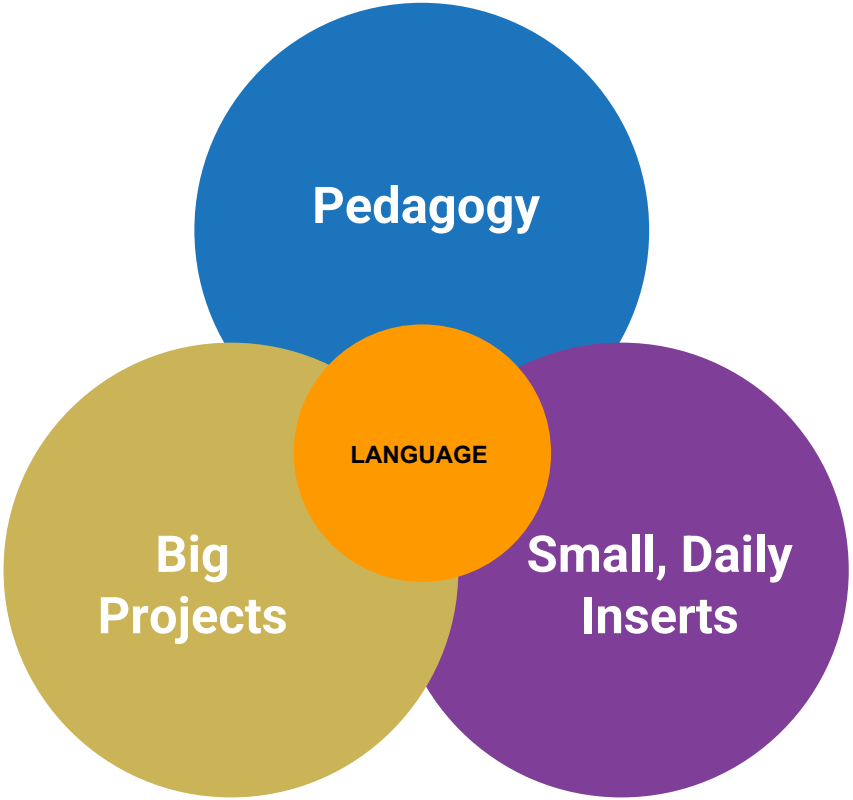
03
Deaf Reading Rope Framework

The Deaf Reading Rope Braids



04
Making Changes

Shifts in STEM Teaching toward Language



Pedagogy Shifts toward Language

1. View yourself as a language teacher!
2. Plan for language as part of your instruction.
    a. Standards & Goals
    b. Assessments
3. Teach academic signing.
4. Expect reading and writing.

Small, Daily Inserts toward Language

1. Reading, Writing, Signing, and Viewing DAILY
2. Teaching moments for language.
3. Classroom communication and dialogue.
4. Textbooks and supplemental materials.
    a. Making your own materials!

Big Projects toward Language

1. End-of-Unit assessment and the role of literacies (content, English, ASL)
2. No project is complete without literacy
3. Collaboration with other Deaf schools/programs
4. Collaboration with other content teachers

05
Plans for the Future

Let's Discuss!

Turn to a neighbor(s) and discuss the following questions:

1. What do you already do for language and literacy?
2. What is something that you've been thinking about trying in your classroom related to literacy?
3. Looking at the frameworks, what's an area you feel is weaker in your language approaches in your classroom?
4. What's an easy step to bringing more language into your teaching and learning?

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