



LITERACY-INFUSED SCIENCE (LIS)

At Texas A&M, our Center for Research & Development in Dual Language Acquisition (CRDLLA) and Education Leadership Research Center (ELRC) housed in the College of Education and Human Development, we developed and chose to use the term literacy-infused science as reading to learn in science with specific reading and writing skills embedded in instruction and curriculum (Irby et al., 2018, Irby et al., 2021; Lara-Alecio et al., 2018; Tong et al., 2019).

Our goal is to support the instructional capacity of science educators and to validate innovative practices and strategies via interventions that address LIS and technology integration with standards-aligned curricula.

We have been implementing and researching LIS in both rural and non-rural schools across Texas for the last 20 years, through the following federally-funded grants:

- Project ELLA: grades K-3 in a large district in southeast Texas
- Project ELLA-V: validation of Project ELLA in grades K-3 across 10 districts
- Project MSSELL: grades 5-6 in a large district in southeast Texas
- Project LISTO: validation of Project MSSELL in grades 5-8 across 35 districts
- Project VICTORY: grades 3-5 in 53 rural districts

LIS COMPONENTS

- Virtual Professional Development - series of engaging online trainings provided to teachers to support implementation of LIS instructional strategies
- Virtual Mentoring and Coaching- online instructional supports that can be provided either real-time (synchronous) or asynchronous
- Literacy-infused Science Curricula- standards-aligned lessons strategically developed to support both science and literacy
- Family Involvement in Science- groundbreaking research utilizing technology to record at-home science learning using standards-aligned booklets and hands-on activities
- Scientists as Role Models and Mentors- connects university science majors to students in the classroom with the goal of motivating students in STEM



LITERACY-INFUSED SCIENCE PRODUCTS

Story-telling and retelling and higher-order Thinking for English Language and Literacy Acquisition

Curriculum designed to impact K-3 emergent bilinguals' growth in English, reading, and science through interactive story reading. STELLA provides meaningful and engaging opportunities for children to respond to literature, while also expanding vocabulary, listening skills, and speaking skills.

Let's Talk Science

Curriculum designed for K-1 students to promote oral language development while supporting science academic vocabulary and concept development. The daily lessons incorporate the 5E instructional model and include phonemic awareness and letter knowledge activities. Lesson activities are embedded with second-language instructional strategies and strategic Spanish clarifications are provided.

Literacy-Infused Science Strategies Handbook

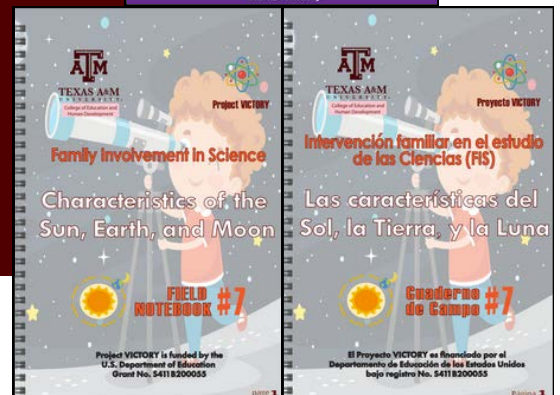
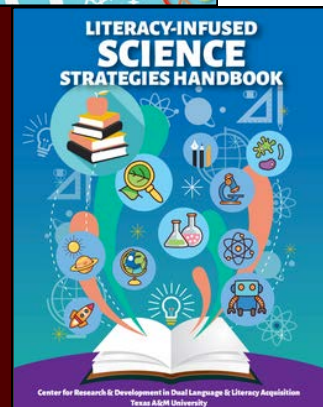
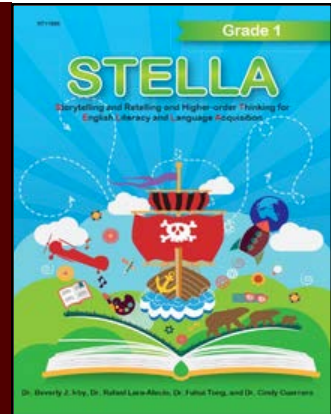
Collection of resources to support the implementation of LIS instructional strategies.

Literacy-Infused Science Overlay

A lesson planning framework for teachers to develop literacy-infused science instruction around the 5E model. The overlay creates authentic opportunities to integrate literacy and language development practices into hands-on science activities, expository science texts, and direct vocabulary instruction.

Family Involvement in Science

Collection of standards-aligned take-home booklets with scaffolded LIS activities to engage family members in science dialogue and hands-on activities. Booklets are provided in both English and Spanish.



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