i.e. information for educators

# The English-Language Learner Research for SRA Snapshots Video Science™

## Scaffolded ELL Student Support

The National Clearinghouse for English Language Acquisition and Language Instruction Educational Programs (NCELA) estimates there are more than five million students identified as limited-English proficient (LEP). The No Child Left Behind Act states that English-Language Learners (ELL) must meet the same state academic achievement standards and state academic content standards expected of all students. ***SRA Snapshots Video Science***™ provides science instruction through video lessons, student textbooks, and support materials. The core science content, which is assessment-driven and standards-aligned, provides scaffolding in multiple ways to meet the varied needs of ELL students.

## Multimedia and Technology Support

The strategic use of technology helps to increase access to knowledge and provide equity in education for ELL students. Research documentation fully supports the use of video and other media in ***SRA Snapshots Video Science***™. Examples of supporting research include the following:


- Herrera, S., and Murry, K. 2005. *Mastering ESL and bilingual methods: Differentiated instruction for culturally and linguistically diverse (CLD) students.* Boston: Allyn and Beacon.
- Krueger, E. 1998. Media literacy does work, trust me. *English Journal,* 17–20.
- National Research Council. 2000. *How people learn: Brain, mind, experience, and school.* Washington, DC: National Academy Press.
- Ostlund, K. 2005. Scaffolded inquiry. *CESI Science* 38, (1).
- Tiene, D., and Luft, P. 2002. Classroom dynamics in a technology-rich learning environment. *Learning and Leading with Technology,* 29(4), 10–13.
- Tornatzky, L. G., Macias, E. E., and Jones, S. 2002. *Latinos and information technology: The promise and the challenge.* Claremont, CA: The Tómas Rivera Policy Institute.


## Science and Language Learning

Science literacy and language skills can be learned simultaneously. The National Science Education Standards and English language proficiency standards call for integrating content instruction in science and English language instruction. Examples of research supporting the science content and language instruction in ***SRA Snapshots Video Science***™ include the following:


- Crandall, J., Jaramillo, A., Olsen, L., and Peyton, J.K. 2002. *Using cognitive strategies to develop English language and literacy.* ERIC Clearinghouse on Languages and Linguistics.
- Gibbons, P. 2003. Mediating language learning: Teacher interactions with ESL students in a content-based classroom. *TESOL Quarterly 37,* (2): 247–273.
- Gottlieb, M. 2004. *WIDA Consortium English language proficiency standards for English language learners in kindergarten through grade 12: Overview document.* Madison, WI: State of Wisconsin.
- Luykx, A., Cuevas, P., Lambert, J., and Lee, O. 2004. Unpacking teachers' "resistance" to integrating students' language and culture into elementary science instruction. *Preparing prospective mathematics and science teachers to teach for diversity: Promising strategies for transformative action,* 119–141. Mahwah, NJ: Erlbaum.
- National Science Teachers Association. 2000. Position statement on multiculturalism. Available online at http://www.nsta.org/positionstatement&psid=21 (accessed December 1, 2006).
- Rothenberg, C., and Fisher, D. 2007. *Teaching English-Language Learners: A differentiated approach.* Upper Saddle River, NJ: Pearson Education.
- Shin, F. 2005. *ELD in the content area: Science.* New York: Rosen.
- Teachers of English to Speakers of Other Languages. 1997. ESL standards for pre-K–12 students. Alexandria, VA: TESOL.
- Thier, M., and Daviss, B. 2002. *The new science literacy: Using language skills to help students learn science.* Portsmouth, NH: Heinemann.



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## Targeted Vocabulary Instruction

Explicit content area and academic vocabulary instruction can help ELL students to master content area subjects. ***SRA Snapshots Video Science***™ uses a variety of techniques to provide rich vocabulary instruction for ELL students. Examples of research supporting the vocabulary instruction in ***SRA Snapshots Video Science***™ include the following:


- Beck, I., McKeown, M., and Kucan, L. 2002. *Bringing words to life: Robust vocabulary instruction*. New York: Guilford Press.
- Blachowicz, L. Z., and Fisher, P. 2005. T*eaching vocabulary in all classrooms*. Upper Saddle River, NJ: Prentice Hall.
- Graves, M. F. 2006. *The vocabulary book: Learning and instruction*. Williston, VT: Teacher's College Press.
- Scarcella, R. 2003. *Accelerating academic English: A focus on the English-Language Learner*. Oakland, CA: Regents of the University of California.
- Watts-Taffe, S., and Truscott, D. 2000. Using what we know about language and literacy development for ESL students in the mainstream classroom. *Language Arts 77,* (3), 258–265.