the **R E S E A R C H** *for*

SRA *Snapshots Simply Science™*

Scaffolded ELL Student Support

The National Clearinghouse for English Language Acquisition and Language Instruction Educational Programs (NCELA) estimates that there are more than five million students identified as LEP or limited-English proficient. The No Child Left Behind Act states that ELL students must meet the same state academic achievement standards and state academic content standards expected of all students. **SRA Snapshots Simply Science™** provides science instruction through video lessons, student read-aloud books, visual vocabulary cards, and support materials. The core science content, which is 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 educational products, including **SRA Snapshots Simply Science™.** Examples of supporting research include the following:

- Herrera, S., & K. Murry. 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., & P. Luft. 2002. Classroom dynamics in a technology-rich learning environment. *Learning and Leading with Technology, 29*(4), 10–13.
- Tornatzky, L. G., E. E. Macias, & S. Jones. 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 Simply Science™** include the following:

- Crandall, J., A. Jaramillo, L. Olsen, & J. K. Peyton. 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., P. Cuevas, J. Lambert, & O. Lee. 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.
- Rothenberg, C. & D. Fisher. 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., & B. Daviss. 2002. *The new science literacy: Using language skills to help students learn science.* Portsmouth, NH: Heinemann.

Targeted Vocabulary Instruction

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

- Beck, I., M. McKeown, & L. Kucan. 2002. *Bringing words to life: Robust vocabulary instruction.* New York: Guilford Press.
- Blachowicz, L. Z., & P. Fisher. 2005. *Teaching vocabulary in all classrooms.* Upper Saddle River, NJ: PrenticeHall.
- Graves, M. F. 2006. *The vocabulary book: Learning and instruction.* Williston, VT: Teacher's College Press.