THE SANGARI DIFFERENCE:

Focused on Fundamentals

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Imagine an elementary school where students really understand science—at the fundamental level. Students as young as six years old discover important science ideas on their own. Teachers not only have access to manipulative materials, but they are well-trained to use them in the context of learning.

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Rather than a mad dash, scrambling to cover science content, teachers help students master the *"big ideas"* of science that help them form a new appreciation and understanding of the world around them.

The time for such understanding is now. In an important new international effort, Sangari Global Education introduces a revolution in the field of elementary school science education: the Sangari Active Science program.

Sangari Active Science is rooted in rigorous standards and focused on fundamental science ideas; ideas that will inspire high-level thinking. The program is intended to replace typical standalone kits and elementary science textbooks with hands-on investigations that actively engage students in their own learning… and it provides unprecedented support to help teachers use the curriculum and instructional tools.

In-depth Instruction

Rather than a typical textbook-driven program that covers 40 or so topics a year, Sangari Active Science offers three-to-four in-depth, thematic explorations per grade. These investigations promote active learning through hands-on activities and can last for more than two months at a time.

By deliberately focusing on a number of carefully selected, fundamental big ideas that students must know and be able to do, we give teachers the chance to really teach and students the chance to really think.

The Result: Students learn more, understand more, and retain more.

Tell me and I forget.
Show me and I remember.
***Involve me** and I understand.*

Hands-on Investigations

Research reinforces what common sense tells us: when students are actively involved in their learning, they learn more.

Each school year is organized around three or four units … focused on the key building blocks of science.

Each unit includes 16–20 engaging lessons. And each lesson is structured around two or more investigations that give students repeated opportunities to show what they know.

Students start each lesson by grappling with a Big Question that taps into their innate curiosity about the world, while simultaneously introducing a key scientific building block:

- What is fire? (and what does it have to do with making cars run?)
- What is light?
- Why is the sea salty?
- Why do trees weigh so much?
- What makes some rocks so shiny?
- What is magnetism and why are some things magnetic?

For each question, students develop hypotheses about the answers. They work in small groups to gather data and discuss their ideas. They reflect on what they've learned by recording their thoughts in their Science Journals. They revise their ideas based on the evidence. And their small groups decide how best to present their findings to the rest of the class.

The teacher is there every step of the way, helping to guide explorations, clarify misunderstandings, and ensure that students have mastered the key science concepts.

In short, students become junior scientists and explorers, guided by the teacher to build their own understanding. Yes, they learn the basic facts about science. But just as important, they learn how to think and explain what they know.

Aligned to Rigorous Standards

Engaging lessons packed with interesting activities and lively discussions aren't much use unless they produce a tangible result: demonstrable student understanding of the big ideas.

That's why all Sangari Active Science units and lessons are tightly aligned to relevant national, state, and local standards. The current national movement to set fewer, higher, and clearer standards dovetails perfectly with our approach. In the meantime, we work closely with states and districts to ensure that our curriculum aligns with their specific expectations.

And yes, when students truly understand the big ideas, they can succeed on state standardized assessments in science. Our curriculum covers all the key facts about each scientific concept, while encouraging students to explore the ideas in even more depth than in a typical classroom.

Relevant and Ongoing Teacher Support

To support a rich, higher-level thinking program such as this, Sangari Active Science offers:

- Eight days of in-school training and coaching in year 1 (at least four days each year in years 2–5)
- Detailed teachers' guides for each unit and lesson
- A 10-minute video of each lesson, providing step-by-step guidance from expert teachers
- Ongoing assistance from a partner teacher who's available to answer questions
- A laptop computer where every lesson is digitized, with links to videos and other just-in-time resources
- A state-of-the-art web portal with access to best-practice guidance, helpful resources, and other teachers from around the country and the world

Plus, an additional support staff member helps ensure that the supplies teachers need for each lesson are organized for easy use and available when they need them… so that the kit doesn't just sit on the shelf and teachers don't have to sweat the logistics. The kits are customized for each classroom so that teachers aren't counting beakers and straws the night before the lesson.

Meet Needs of All Learners

English language learners benefit from the use of scientific manipulatives as well as the engaging graphics and photographs.

Differentiation for all learning styles is supported when the focus is on learning by doing.

Because so much of the learning occurs in small cooperative groups of four or five students, the students work together to understand and discuss key concepts. Such teamwork promotes long-term understanding by all involved, regardless of a student's ability.

Proven Results

Now serving over 500,000 students in more than 1,000 schools throughout the Americas, Sangari's research-based approach has been developed and tested for more than a decade. It is backed by a $50 million investment.

In all economic environments, our program has been proven effective in getting students excited and interested about learning.

- Qualitative indicators show higher teacher and administrator satisfaction, improved student and teacher attendance, and a variety of other measures.
- Preliminary quantitative measures are promising, including higher test scores, both formative and summative, based on a variety of local and state standards. We are very focused on ongoing evaluation and research and continue to build our longitudinal data set to ensure the ongoing instructional effectiveness of our program.

Sangari Active Science

Relevant, Engaging, Hands-On Instruction

We provide the world's leading investigation-centered integrated science program, serving over 500,000 students in North and South America.

Our curriculum is deliberately structured to take advantage of children's natural curiosity. Instead of a traditional approach that relies on lectures and textbooks and reinforces an artificial division among biology, physics, and chemistry, Sangari Active Science has students spend their time doing interdisciplinary investigations that are organized into 36 modular units.

Within each module, students conduct a number of experiments, each lasting from a few days to a few weeks: asking questions, debating answers, proving and disproving hypotheses, writing up conclusions in their science journals, and regularly showing what they know.

Learn more at www.sangariglobaled.com

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