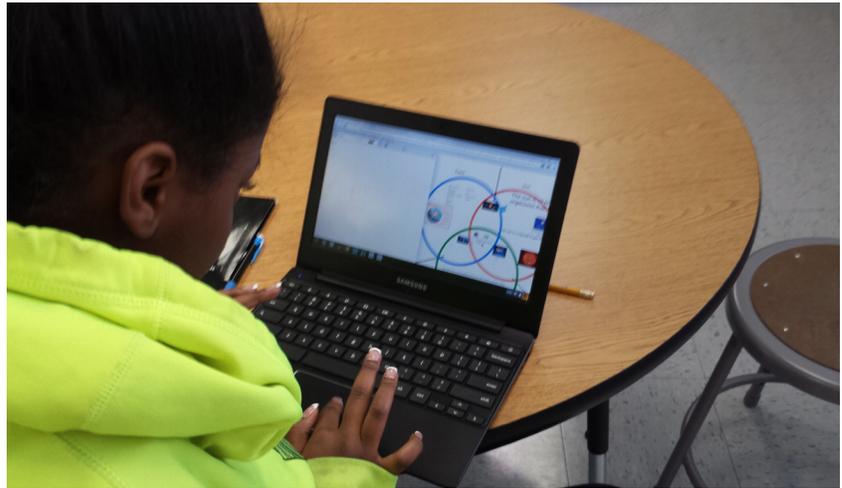




Purposeful Earth & Life Science Education: The Incorporation of SMART into a Classroom

A SMART Customer story with *Donna Campano, Teresa Brown and Kelly Miksch*



Motivation: Students Struggling to Apply Concepts

Due to low state test scores in 2014-2015, Oak Grove Elementary School shifted to departmentalized classes from traditional classrooms. While investigating the root causes of low test scores, teacher Donna Campano observed that students were struggling with specific Earth and Life Science concepts, as outlined in the Texas Essential Knowledge and Skills (TEKS).

Her biggest instructional challenge was vocabulary development: her students could provide the basic meaning of key vocabulary words, but would not successfully apply them. As such, her students were struggling to achieve high marks.

Campano determined she needed to integrate a technology solution combined with a 4Cs and Total Participation Techniques (TPTs) approach. She would create engaging, focused lessons that would encourage her students to practice their knowledge, skills, and vocabulary words in a variety of ways.

How SMART Solutions Improved Learning Outcomes

Campano enlisted the help of Instructional Technology Specialists Teresa Brown and Kelly Miksch, and district science specialist Alma Gonzales. Using SMART Learning Suite, Donna created purpose-built lessons and activities that would incorporate the 4Cs and TPTs. The goal was to encourage her students to engage in active group discussions and answer questions using higher-order critical thinking skills.

Teacher and School

Donna Campano
Oak Grove Elementary School
North East Independent District
San Antonio, Texas

Challenge

To help students engage, explore, explain, elaborate and evaluate key Earth and Life Science concepts, and apply their knowledge on the State of Texas Assessments of Academic Readiness (STAAR) tests

SMART Solution

SMART Board
SMART Learning Suite

Result

SMART Solution played a vital role in improving students' results, and developing their ability to think critically, communicate, collaborate, and come up with creative solutions.

SMART Notebook®

Students applied their knowledge at a higher level of critical thinking by interacting with vocabulary and other science concepts on a SMART Board®. Students were hands-on with their learning and began to use key vocabulary words more frequently during class discussions, and with their learning partners.

SMART lab™

SMART lab created a dynamic learning environment that involved the whole class. Competitive multiple choice games were used to review key concepts and vocabulary. Fun competition made students more engaged with Campano's lessons, and helped them understand how to use their vocabulary and science content in discussions and investigations.

SMART amp™

Campano leveraged SMART amp to provide her students with the opportunity to make connections with key standards, and show their understanding. By shifting her SMART amp workspaces into more student-driven digital learning environments, she flipped the instruction so that her students could learn by themselves and from each other while engaging in more critical thinking.

Outcome: Higher Pass Rates & Enhanced 21st Century Skills

The SMART Solution played an important role in improving students' results. Year-over-year (2014-15 compared to 2015-16), General Education students showed a 31% increase in the Total Percentage Pass Rate in their STAAR Science scores. Special Education students saw a 29% increase. Additionally, per the 2015-16 Texas Academic Performance Report, Oak Grove Elementary School achieved a distinction designation for Academic Achievement in Science.

Campano said the SMART Learning Suite lessons and activities helped her students:

- Think critically when problem solving
- Work in a collaborative environment
- Practice creativity and innovation
- Exercise their oral presentation skills
- Use technology and new media
- Work in diverse, inclusive teams



“Donna paired her best teaching practices with her SMART Solution to create a ‘perfect storm’ of instruction that created a very impactful learning environment — one that would not have been possible without its engaging technology components.”

About SMART

SMART Technologies Inc. is a world leader in simple and intuitive classroom technology solutions. We are an innovator in software and interactive technologies that enable natural collaboration, helping every student and teacher discover and develop their greatness. To learn more, visit smarttech.com.

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