#### CCAHS 2014-2015

Cesar Chavez High School

technology at the secondary level: Research findings and implications for classroom practice. Dallas,

TX: Texas Instruments.

Activity - Professional Development

Heller, Joan; Curtis, Deborah; Jaffe, Rebecca and Verboncouer, Carol (2005). "Impact of Handheld Graphing Calculator Use on Student Achievement in Algebra 1."

Tion

Activity

Evaluation

Interactive Educational Systems Design (IESD), Inc. (2003). Using Handheld Graphing Technology in Secondary Mathematics: What Scientifically Based Research Has to Say.

Phase

Regin Date | End Date

09/02/2014 06/30/2015

Resource

\$2000

Title I

Schoolwide

#### Tier:

Activity - Professional Development	Type	Hei	Filase	Degin Date		Assigned	Funding	Responsibl e
Teachers will benefit from focused training on how to teach with new mathematics hardware and software.	Professiona I Learning			09/02/2014	06/30/2015	\$16950		All mathematic s instructors
Activity - Proficiency Assessment	Activity Type	Tier	Phase	Begin Date		Resource Assigned		Staff Responsibl e
Teachers will develop and a graphing calculator usage proficiency assessment and administer it as a pre and post test to gauge student understanding, retention and mastery of new technology within the classroom.	Monitor			09/02/2014	06/30/2015	\$0	· ·	All mathematic s instructors
Activity - Mathematics Progress Assessment	Activity Type	Tier	Phase	Begin Date		Resource Assigned		Staff Responsibl

# **Goal 4: Science Improvement**

All mathematics teachers will administer a comprehensive

measure overall efficacy of the Teaching with Technology

standardized pre and post test to all math students as a tool to

## **Measurable Objective 1:**

Strategy.

30% of Eleventh grade students will demonstrate a proficiency on state standardized assessments in Science by 06/30/2015 as measured by MME/ACT standardized tests..

ΑII

mathematic

instructors

#### Strategy 1:

Classroom Interventions - Teachers will continuously modify and improve upon instruction through teaching strategies that are monitored and enhanced with collection and analysis of relevant classroom data.

Research Cited: "Beyond the Numbers." S. White, 2005

"The Administrator?s Guide to Data-Driven Decision Making." Todd McIntire. Technology & Learning, June 2002.

"Cooking with Data to Reduce Achievement Gaps." Craig Jerald. ENC Focus, electronic version, Volume 10, Number 1.

"Data Analysis in Administrators? Hands. An Oxymoron?" Theodore B. Creighton.

The School Administrator, April 2001.

"Data in Your Hands." Raymond Yeagley. The School Administrator, April 2001.

"Data: Mining with a Mission." Judy Salpeter. Technology & Learning, March 2004.

"How Data Can Help: Putting Information to Work to Raise Student Achievement." Jane

Armstrong and Katy Anthes. American School Board Journal, November 2001.

"Improving Teaching and Learning with Data-Based Decisions: Asking the Right Questions and Acting on the Answers." Nancy Protheroe. ERS Spectrum, Summer 2001.

"An Interview with Nancy Love: Building a Professional Learning Community." Ken Mayer. ENC Focus, electronic version, Volume 10, Number 1.

"Making Sense of the Data. Overview of the K-12 Data Management and Analysis Market."

A report produced by Eduventures, Inc., November 2003.

"Software Enabling School Improvement through Analysis of Student Data." Report No. 67, published by the Center for Research on the Education of Students Placed At Risk, a national research and development center supported by a grant from the Institute of Education Sciences, U.S. Department of Education; January 2004. For a full copy of the report:

www.csos.jhu.edu/systemics/datause.htm.

"Turning Skeptics into Supporters." Elaine M. Coffin and Laura M. Seese. ENC Focus, electronic version, Volume 10, Number 1.

"Uses and Abuses of Data." Nancy Love. ENC Focus, electronic version, Volume 10, Number 1.

Tier:

Activity Type	Tier	Phase	Begin Date		Source Of Funding	Staff Responsible
Турс				Assigned	l anding	e

## **CCAHS 2014-2015**

Cesar Chavez High School

Teachers will provide students with differentiated instruction within all Mathematics classes based on individual needs.	Other			09/02/2014	06/30/2015	\$3428	Section 31a, Title I Schoolwide	All Science Staff, including Teachers, Support Staff and Para- Professiona Is.
Activity - Sheltered Instruction Observation Protocol (SIOP)	Activity Type	Tier	Phase	Begin Date	End Date	Resource Assigned	Source Of Funding	Staff Responsible
Teachers will incorporate instructional strategies that assist with the English Language Learner (ELL Student) within the classroom on a consistent basis. SIOP promotes active involvement of students in the learning process, including opportunities for them to explore application of higher-order thinking skills and investigate new approaches to applying their learning.	Other			09/02/2014	06/30/2015	\$500	Title I Schoolwide	All Science Instructors
Activity - Common Formative and Summative Assessments	Activity Type	Tier	Phase	Begin Date	End Date	Resource Assigned	Source Of Funding	Staff Responsible
Teachers will administer common formative and summative assessments, which will allow the faculty to make data-driven decisions regarding the learning needs of the student.	Other			09/02/2014	06/30/2015	\$500	Title I Schoolwide	All Science Instructors
Activity - Response to Intervention	Activity Type	Tier	Phase	Begin Date	End Date	Resource Assigned	Source Of Funding	Staff Responsible
Teachers and content specialists will assess collected data based on specific content area standards and recommend individuals for additional instruction whether that be within or outside of the classroom; before, during or after the school day.	Other			09/02/2014	06/30/2015	\$500	Title I Schoolwide	All Science Staff, including Teachers, Support Staff and Para- Professiona Is.

# Strategy 2:

Critically Read and Analyze Scientific Literature - Teachers will teach students to critically read and analyze scientific literature to enhance reading skills and a better understanding in science. Teachers will assess quarterly to determine the progress.

Research Cited: Baldi, S., Jin, Y., Skemer, M., Green, P. J., & Herget, D. (2007). Highlights from PISA 2006: Performance Marshall, J. C., Smart, J., & Horton, R. M. (2010). The design and validation of EQUIP: An instrument to

assess inquiry-based instruction. International Journal of Science and Mathematics Education, 8, 299?321.

Cesar Chavez High School

Page 12

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National Research Council. (2000). Inquiry and the national science education standards: A guide for teaching and learning. Washington, DC: National Academies Press.

Piaget, J. (1970). Piaget's theory. In P. H.Mussen (Ed.), Carmichael's manual of child psychology (pp. 703?732). New York: Wiley.

Sanders, W., & Rivers, J. (1996). Cumulative and residual effects of teachers on future student academic achievement (University of Tennessee Value-Added Research and Assessment Center).

Schmidt, W. H., McNight, C. C., & Raizen, S. A. (2002). A splintered vision: An investigation of U.S. science and mathematics education.

Tomlinson, C. A., & McTighe, J. (2003). Integrating differentiated instruction and understanding by design.

Alexandria, VA: Association for Supervision and Curriculum Development.

Vygotsky, L. (1978). Mind in society: The development of higher psychological processes. Cambridge, MA: Harvard University Press.

Wiggins, G., & McTighe, J. (1998). Understanding by design. Alexandria, VA: ASCD.

of U.S. 15-year-old students in science and mathematics literacy in an international context (NCES 2008-016). Washington, DC: National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education.

Bransford, J. D., Brown, A. L., & Cocking, R. R. (2000). How people learn: Brain, mind, experience, and school (expanded ed.). Washington, DC: National Academies Press.

Bybee, R. W., Taylor, J. A., Gardner, A., Scotter, P. V., Powell, J. C., Westbrook, A., et al. (2006). The

BSCS 5E instructional model: Origins, effectiveness, and applications. Colorado Springs, CO: BSCSo.

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Eisenkraft, A. (2003). Expanding the 5E model: A proposed 7E model emphasizes ?transfer of learning? and the importance of eliciting prior understanding. The Science Teacher, 70, 56?59.

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## **CCAHS 2014-2015**

Cesar Chavez High School

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Marshall, J. C., Horton, B., & Smart, J. (2009). 4E x 2 Instructional Model: Uniting three learning constructs to improve praxis in science and mathematics classrooms. Journal of Science Teacher Education, 20, 501?516.

Marshall, J. C., Horton, B., Smart, J., & Llewellyn, D. (2008). EQUIP: Electronic Quality of Inquiry Protocol.

Tier:

Activity - Professional Development	Activity Type	Tier	Phase	Begin Date	End Date	Resource Assigned	Source Of Funding	Staff Responsibl e
Teachers will benefit from, focused training on, and how to teach through Scientific Inquiry.	Professiona I Learning			09/02/2014	06/30/2015	\$15000	Title I Schoolwide	All Science Instructors
Activity - Pre-Post Assessment	Activity Type	Tier	Phase	Begin Date	End Date	Resource Assigned	Source Of Funding	Staff Responsible
All Science Teachers will administer an ACT style pre/post test to all science students as a tool to measure overall effectiveness of the Teaching through Inquiry Strategy.	Other			09/02/2014	06/30/2015	\$0	No Funding Required	All Science Instructors.
Activity - Scientific Inquiry	Activity Type	Tier	Phase	Begin Date	End Date	Resource Assigned	Source Of Funding	Staff Responsible
Teachers will incorporate lessons to teach students to create, read, and analyze lab reports to enhance scientific inquiry skills. Teachers will have students complete a minimum of two lab reports per year as a means to assess their growth.	Other			09/02/2014	06/30/2015	\$0	No Funding Required	All Science Instructors
Activity - At Risk Support Staff	Activity Type	Tier	Phase	Begin Date	End Date	Resource Assigned	Source Of Funding	Staff Responsible
Department specific support staff member that addresses our At-Risk population by assisting students that are identified through our Teacher driven RTI process.	Other			09/02/2014	06/30/2015	\$20000	Section 31a	Teachers and support staff personal.