

17-18

Calendar of Student Events



Tulare County
Office of Education

Jim Vidak, County Superintendent of Schools

tcoe.org/StudentEvents

Information updates at tcoe.org/StudentEvents

The information in this booklet was finalized July 7, 2017. Any changes to the dates and/or locations of TCOE student events will be posted at tcoe.org/StudentEvents. You are encouraged to check this webpage for updates on contacts, coaches' meetings, deadlines and registration information.

TCOE Student Events and the California State Standards

The California State Standards (CSS) were adopted by the State Board of Education in 2010. These focused and rigorous standards define the 21st century knowledge and skills students need for success in college and career. The standards call for an integrated curriculum that challenges students to think in complex ways and to apply the knowledge and skills they have acquired. Evidence of such learning can be demonstrated through the completion of a variety of assigned tasks, including TCOE Student Event activities.

TCOE has always promoted student event participation as an avenue to providing a well-rounded educational experience. Now, we are able to further emphasize the importance of student events by directly aligning them to our 21st century standards.

When applicable, TCOE Student Events are coded in one or both of the following manners:

- Alignment to the College and Career Readiness (CCR) Anchor Standards, Mathematical Practices (MP), Science and Engineering Practices (SEP) in the Next Generation Science Standards (NGSS) and/or Visual and Performing Arts Standards (VAPA). Refer to the back of this brochure for CCR Anchor Standards, Mathematical Practices, Science and Engineering Practices and Visual and Performing Arts Standards in their entirety.
- Identification of the type of task associated with the event:
 - Presentation: information is orally conveyed
 - Performance: a dramatic interpretation is included
 - Project: a product is produced prior to the day of the event
 - Problem Solving: a recommendation or solution is provided

College Night - September 12

An event for high school students and their parents who want to learn more about preparing for, and applying to, colleges. University and college representatives from around the country will be available to answer questions. (Grades 9-12)

Tuesday, September 12, 5:30 - 8:00 p.m.

No fee

Visalia Convention Center, 303 E. Acequia, Visalia

Contact: Paula Terrill at (559) 651-0565, or paula.terrill@tcoe.org; Joy Soares at (559) 651-6101, or joy.soares@tcoe.org

CSS CCR Anchor Standards: Speaking and Listening 1 & 3; 5 & 6

FNL T.U.P.E. Leadership Training - September 20

A training event for middle school students identified as campus leaders. Selected students learn how to engage fellow classmates in activities that encourage healthy choices and how to implement their training at school. (Grades 6-8)

Wednesday, September 20, 8:00 a.m. - 3:00 p.m.

Fee: \$30/team

TCOE Elderwood Room, 7000 Doe Ave., Visalia

Contact: Tony Cavanagh at (559) 651-0155, ext. 3614, or tcavanag@tcoe.org

CSS CCR Anchor Standard: Writing 4 & 8; Speaking and Listening 1; Project and Problem Solving

SCICON Open House - September 24

SCICON staff hosts an open house each semester so that parents of sixth-grade students preparing for a trip to the outdoor education campus can tour the program. Families are welcome to bring picnic lunches. SCICON staff is available to answer questions. (Grade 6)

Sunday, September 24, 12:00 - 4:00 p.m.

No fee

SCICON Campus, Springville

Contact: Dianne Shew at (559) 539-2642, or dshew@tcoe.org

Circle J Ecological Research and Restoration Project - September 30

High school students work with university scientists and naturalists to complete studies on Circle J's vernal pools, native plant pollinators, oak forest ecology, pond turtles and birds. The event is designed to spark students' interest in conducting research and in engaging in ecological restoration, while considering careers in field science and conservation. (Grades 9-12)

Saturday, September 30, 8:30 a.m. - 4:00 p.m.

No fee

Circle J-Norris Ranch Campus, Springville

Contact: Nancy Bruce at (559) 539-2263, or circlej@ocsnet.net

CSS SEP: 1, 2, 3, 4 & 5

Cardboard Challenge - October

The Global Cardboard Challenge was inspired by the short film entitled *Caine's Arcade* and is a worldwide celebration of childhood creativity and the role communities can play in fostering it. TCOE encourages Tulare County school districts to participate in the Challenge by providing curriculum and ideas for managing this creative time at school. Teachers are encouraged to indicate their intent to participate in the event so that TCOE staff might visit your school and help collect video or photos to share on its website. This Cardboard Challenge engages students in the 4Cs of 21st century learning: critical thinking, creativity, collaboration and communication. (All grades)
Contact: Juliana Davidian at (559) 651-3003, or juliana.davidian@tcoe.org; Jared Marr at (559) 651-3047, or jared.marr@tcoe.org

CSS CCR Anchor Standards: Speaking & Listening 1 and 4; CSS Mathematics Practices: MP4-6

Step Up Youth Challenge - October-April

The Step Up Youth Challenge will take place over the course of the 2017-18 school year, providing an opportunity for 20 middle and 15 high school teams to complete a project that will have a positive impact on their school and community. (Grades 6-8 and 9-12)

Youth Summit (training for student teams), Wednesday, October 4 **No fee**
8:30 a.m. - 2:30 p.m., International Agri-Center, 4500 S. Laspina St., Tulare
Final Project Due TBA; Red Carpet Awards, TBA

Challenge Advisor Training: Thursday, September 14, 4:00 - 7:00 p.m.
TCOE Administration Building, 6200 S. Mooney Blvd., Visalia

Contact: Rob Herman at (559) 733-6606, or robh@tcoe.org

CSS CCR Anchor Standards: Writing 1; Speaking and Listening 4; Project, Problem Solving and Presentation

CHARACTER COUNTS! Week - October 16-21

A week-long celebration of the principles of CHARACTER COUNTS! in partnership with the *Visalia Times-Delta/Tulare Advance-Register*. Tulare County schools and communities participate by nominating students of good character. Top honorees will be featured throughout the week in the newspapers. (All grades)

Nominations accepted September 1 - October 2 **No fee**
online at www.tcoe.org/KidsofCharacter
Provident-Salierno Family Foundation Awards Reception:

Thursday, November 2, 6:00 p.m., TCOE Administration Building, 6200 S. Mooney Blvd., Visalia

Contact: Kelley Petty at (559) 740-4303, or kelley@tcoe.org

Tulare County Red Ribbon Celebration - October 18

Through a partnership between the Tulare County Office of Education, the Tulare County Health and Human Services Agency, and a myriad of other county and city resources, the 2017 Red Ribbon Celebration event will allow students and families to participate in safe, educational and fun activities without the use of alcohol, tobacco or other drugs. In addition, the event will be a showcase of positive choices and opportunities for the youth of the Valley. (All grades)

Wednesday, October 18, 3:00 - 6:00 p.m.

No fee

Visalia Convention Center, 303 E. Acequia, Visalia

Contact: Adam Valencia at (559) 651-0155, ext. 3611, or avalencia@tcoe.org

CSS CCR Anchor Standards: Speaking and Listening 1, 2 & 3

Civil War Time Travelers - October 20

A tour of educational stations at the Civil War reenactment in Fresno brings a critical period in U.S. History to life. Up to 350 students from Tulare County are invited to attend. After the classes have visited the stations and returned to school, they must create and submit a newspaper article written from the point of view of that time period. (Grade 8)

Friday, October 20, Kearney Park, Fresno

Fee: \$3/student

Contact: Juliana Davidian at (559) 651-3003, or juliana.davidian@tcoe.org; Gay

Atmajian at (559) 651-3350, or gay.atmajian@tcoe.org

CSS CCR Anchor Standards: Speaking and Listening 1, 2 & 3; Writing 4; Project

Young People's Concerts - October 24, 30 & November 1

Now in its 58th year, the Young People's Concerts provide an opportunity for Tulare County students to attend a live orchestra performance, courtesy of the Tulare County Symphony. Concerts are held in Visalia, Tulare and Porterville. (Grades 3-8)

Tuesday, October 24, 9:00 a.m., 11:00 a.m. & 1:00 p.m.

Fee: \$3/student

L.J. Williams Theater, 1001 W. Main St., Visalia

(Reservation

Monday, October 30, 9:30 a.m. & 10:45 a.m.

required)

Tulare Community Auditorium, 755 E. Tulare Ave., Tulare

Wednesday, November 1, 9:30 a.m. & 11:00 a.m.

Buck Shaffer Theater, 415 W. Olive Ave., Porterville

Contact: Kate Stover at (559) 741-0809, or kate.stover@tcoe.org

CSS CCR Anchor Standards: Speaking and Listening 4; CSS VAPA Standards: a, c, d, e

Expanding Your Horizons - November 4

A conference for young women to learn about career opportunities in the STEM fields: science, technology, engineering and mathematics. The event provides students personal contacts with women working in occupations traditionally held by men. (Grades 4-10)

Saturday, November 4, 8:00 a.m. - 3:00 p.m.

Fee: \$20/student

College of the Sequoias Visalia campus

Contact: Paula Terrill at (559) 651-0565, or paula.terrill@tcoe.org; Katherine Goyette

at (559) 651-3008, or katherine.goyette@tcoe.org

CSS CCR Anchor Standards: Speaking and Listening 1, 2 & 3;

CSS SEP: 1, 2, 6, & 7

Theatre Company Fall Musical - November 16-18

Elf, Jr.

The Theatre Company offers classes and performance opportunities to all Tulare County youth. Fall and Spring semester workshops culminate in a full-scale production. There are minimal course fees for classes and productions. (Grades 1-12)

November 16-18

This production has been previously cast

School Show (Grades 6-12): November 17 at 9:30 a.m.

(\$5/student; reservations required)

November

Public Shows: November 16-18 at 7:00 p.m. and November 18 at 2:00 p.m.

Tickets: \$12 per person, L.J. Williams Theater, 1001 W. Main St., Visalia

Contact: Bethany Rader at (559) 651-1482, ext. 3645, or bethany.rader@tcoc.org

CSS VAPA Standards: a, b, c, d, e; Performance

Student Art Exhibitions - November-February

The annual Student Art Exhibitions showcase the county’s talented young artists. From November through March, student artwork is displayed at the Tulare County Office of Education administration building, and the public is invited to view the show. Entries are judged by local artists and those pieces receiving a “Best of Show” award are honored at a special reception in March during Arts Education Month. (Grades K-12)

TCOE Administration Building, 6200 S. Mooney Blvd., Visalia

No fee

Exhibitions: November 20 - December 29, displaying school districts R-W

January 22 - February 23, displaying school districts A-P

Best of Show Exhibition: March 1 - 29

Artists’ Open House: Thursday, March 1, 5:00 p.m. - 7:00 p.m.,

TCOE Administration Building, 6200 S. Mooney Blvd., Visalia

Contact: Kate Stover at (559) 741-0809, or kate.stover@tcoc.org

CSS VAPA Standards: a, b, c, d, e; Project

December

CyberQuest - December 2

A competition for teams of students who will research a problem and create a multimedia presentation to be shown to a panel of judges. Students will utilize 21st century fluency skills to complete their entries. (Grades 4-12)

Saturday, December 2, 8:00 a.m. - 3:30 p.m.

Fee: \$50/team

TCOE Administration Building, 6200 S. Mooney Blvd., Visalia

Contact: Paula Terrill at (559) 651-0565, or paula.terrill@tcoc.org; Katherine Goyette at (559) 651-3008, or katherine.goyette@tcoc.org

CSS CCR Anchor Standards: Writing 6 & 7; Speaking and Listening 4; Project, Problem Solving and Presentation

January

Remembering the Holocaust Public Talk

Each year, Tulare County students in select schools hear the personal account of a World War II Holocaust survivor and have the opportunity to ask questions. The sessions are intended to enhance students’ understanding of this horrific event. Additionally, TCOE will host an evening presentation for parents and community members. (Grades 7-12)

Date TBA

No fee

TCOE Administration Building, 6200 S. Mooney Blvd., Visalia

Contact Paula Terrill at (559) 651-0565, or paula.terrill@tcoc.org; Gay Atmajian at (559) 651-3350, or gay.atmajian@tcoc.org

CSS CCR Anchor Standards: Speaking & Listening 3

SCICON Open House - January 21

SCICON staff hosts an open house each semester so that parents of sixth-grade students preparing for a trip to the outdoor education campus can tour the program. Families are welcome to bring picnic lunches. SCICON staff is available to answer questions. (Grade 6)

Sunday, January 21, 12:00 - 4:00 p.m.

No fee

SCICON Campus, Springville

Contact: Dianne Shew at (559) 539-2642, or dshew@tcoc.org

Mock Trial - January 23 - February 20

This competition allows high school students to learn about the content and processes of the law. Through role-playing, studying a case, and preparing strategies and arguments for trial, students increase public speaking skills, analytic ability, and team cooperation. Local attorneys serve as judges and advisors. Winners advance to the State Mock Trial Finals. (Grades 9-12)

Competition Rounds: Tuesdays & Thursdays, January 23, 25 & 30 Fee: \$500/team and February 1, 5:00 - 8:00 p.m., Tulare County Courthouse, Visalia

Semi-Finals: February 8, 5:00 - 8:00 p.m.

Tulare County Courthouse, Visalia

Finals: February 20, 5:00 - 8:00 p.m.

TCOE Administration Building, 6200 S. Mooney Blvd., Visalia

Contact: Paula Terrill at (559) 651-0565, or paula.terrill@tcoe.org; Scott Pierce at (559) 651-3031, ext. 3363, or scott.pierce@tcoe.org

CSS CCR Anchor Standards: Reading 1; Writing 1; Speaking and Listening 4; Performance and Problem Solving

Academic Decathlon - January 27 & February 3

A competition for high school students featuring a series of 10 academic tests and demonstrations, including art, economics, a written essay, an interview, language and literature, math, music, social science, speech and a Super Quiz. Students compete in teams or as individuals. Winners compete in the California Academic Decathlon. (Grades 9-12)

Scrimmage: Tuesday, November 14, 2017

Fee: \$600/team and/or

TCOE Elderwood Room, 7000 Doe Ave., Visalia

\$60 per practice student

Interview, Speech and Essay Competitions:

Saturday, January 27, 8:30 a.m. - 3:00 p.m. TCOE Administration Building, 6200 S. Mooney Blvd., Visalia

Testing, Super Quiz Relay and Awards:

Saturday, February 3, 8:30 a.m. - 5:00 p.m.

TCOE Administration Building, 6200 S. Mooney Blvd., Visalia

Contact: Paula Terrill at (559) 651-0565, or paula.terrill@tcoe.org; Debra Lockwood at (559) 651-3042, or debra.lockwood@tcoe.org

CSS CCR Anchor Standards: Reading 1; Writing 2 and 9; Speaking and Listening 5; CSS Mathematics Practices 1; Problem Solving and Performance

Poetry Out Loud – February 7

Poetry Out Loud inspires high school students to discover and appreciate poetry through a combination of memorization, performance, and competition. Students master public speaking skills, build self-confidence, and improve English fluency and comprehension. The Poetry Out Loud program begins with classroom and school-wide competitions, with winners advancing to county, state and national competitions. (Grades 9-12)

County Competition – Wednesday, February 7, 6:00 - 8:00 p.m.

No fee

TCOE Administration Building, 6200 S. Mooney Blvd., Visalia

Contact: Kate Stover at (559) 741-0809, or kate.stover@tcoe.org

CSS CCR Anchor Standards: Reading 1, 2, 3, 4, 5, 6; Speaking and Listening 1, 2, 3, 4, 5, 6; Language 1, 2, 3, 4, 5, 6; CSS VAPA Standards: a, b, c, d, e; Performance

Anti-Tobacco Challenge Bowl - February 14

Students participate in a game show-style competition, answering questions on topics including the tobacco industry and the health effects of smoking. The event gives students valuable information about the dangers of tobacco — before they enter middle school and are presented with the temptation to smoke. (Grade 6)

Wednesday, February 14, 9:00 a.m. - 2:00 p.m.

Fee: \$30/team

Wyndham Visalia, 9000 W. Airport Dr., Visalia

Contact: Adam Valencia at (559) 651-0155, ext. 3611, or avalencia@tcoe.org

CSS CCR Anchor Standards: Speaking and Listening 1; Reading 1 & 4;

CSS SEP: 1, 3, 6 & 8

National History Day-Tulare County - February 16

National History Day makes history come alive for Tulare County students by engaging them in the discovery of the historic, cultural and social experiences of the past as they connect them to the future. NHD-TC inspires students through exciting county, state and national competitions and transforms teaching through project-based learning curriculum and instruction. (Grades 4-12)

Friday, February 16, 8:00 a.m. - 3:00 p.m.

Fee: \$20/student

TCOE Administration Building, 6200 S. Mooney Blvd., Visalia

Contact: Paula Terrill at (559) 651-0565, or paula.terrill@tcoe.org; Gay Atmajian at (559) 651-3350, or gay.atmajian@tcoe.org

CSS CCR Anchor Standards: Writing 3, 4 & 5; Speaking and Listening 3;

Project, Presentation and Performance

Tulare County Spelling Championship - February 21

Students in grades 4-8 face off in a public, oral spelling competition. Schools hold their own spelling bees and select two students to attend the county-wide championship. The county champion has the opportunity to go on to the National Spelling Bee in Washington, D.C. (Grades 4-8)

Wednesday, February 21, 8:30 a.m. - 1:00 p.m.

Nominal fee per school

Visalia Convention Center, 303 E. Acequia, Visalia

Contact: Nancy Bellin at (559) 733-6734, or nancyb@tcoe.org

CSS CCR Anchor Standards: Speaking and Listening 2 & 4

Student Art Exhibitions Best of Show - March 1-29

The art exhibitions allow students of all ages to display their artwork at the Tulare County Office of Education. Student artwork is judged by local artists and those who receive a “Best of Show” award are honored at an open house. (All grades)

TCOE Administration Building, 6200 S. Mooney Blvd., Visalia

No fee

Best of Show Exhibition: March 1 - 29

Artists’ Open House: March 1, 5:00 - 7:00 p.m., TCOE Administration Building

Contact: Kate Stover at (559) 741-0809, or kate.stover@tcoe.org

CSS VAPA Standards: a, b, c, d, e; Project

Science Olympiad (Division B/C) - March 3

Individual students and teams compete in events focusing on the various science disciplines. Events balance science facts, processes, skills and science applications. The top four middle and high school teams advance to the NorCal State Science Olympiad. (Division B - Grades 6-9; Division C - Grades 9-12)

March

Saturday, March 3, 8:00 a.m. - 5:00 p.m.**Fee: \$200/team****Location Mission Oak High School, 3442 E. Bardsley Ave., Tulare**

Contact: Paula Terrill at (559) 651-0565, or paula.terrill@tcoe.org; Jared Marr at (559) 651-3047, or jared.marr@tcoe.org

CSS CCR Anchor Standards: Reading 1, 2 & 10; Writing 2 & 7; Project and Problem Solving; CSS SEP: 1-8

STEM Expo - March 10

The STEM (science, technology, engineering, and mathematics) Expo will allow students, families, and community members to participate in a variety of STEM-related activities. Students in grades 3-12 may participate in the science fair portion of the event. The top winners in this competition (grades 6-12) qualify for the California Science and Engineering Fair. Featured speakers, informational booths, and hands-on activities will be available throughout the day. (Grades 3-12)

Event: Saturday, March 10, 8:30 a.m. - 3:00 p.m.**Fee: \$20/project****TCOE Planetarium & Science Center, 11535 Ave. 264, Visalia**

Contact: Paula Terrill at (559) 651-0565, or paula.terrill@tcoe.org; Jared Marr at (559) 651-3047, or jared.marr@tcoe.org; Nicole Ray at (559) 651-3031, or nicole.ray@tcoe.org

CSS CCR Anchor Standards: Reading 1, 2, 4, 7-10; Speaking & Listening 1-6; Writing 1, 2, 4-10; Problem Solving, Project and Presentation; CSS SEP: 1-8

Poetry and Prose - March 13, 15, 16, 20-22

Students present poetry to an audience and judges at this county-wide oral interpretation event. Oral and written assessments are offered to each student, along with personalized certificates denoting their rank of Superior, Excellent, Very Good and Good. (Grades K-8)

March 13, 15, 16, 20-22, 9:00 a.m. - 1:00 p.m.**No fee****TCOE Administration Building, 6200 S. Mooney Blvd., Visalia**

Contact: Nancy Bellin at (559) 733-6734, or nancyb@tcoe.org

CSS CCR Anchor Standards: Reading 4 & 5; Speaking and Listening 6; Performance

College and Career EXPO - April 6

The College and Career EXPO provides students the opportunity to compete in college- and career-oriented competitions and spend some time on a college campus. College and Career EXPO builds upon the momentum that students and schools are creating in college and career awareness, exploration and preparation. The event is open to all students in academies or pathways. (Grades 9-12)

Event: Friday, April 6, 8:30 a.m. - 2:00 p.m.**No fee****College of the Sequoias Visalia and Tulare campuses**

Contact: Joy Soares at (559) 733-6101 or joy.soares@tcoe.org

Speaking & Listening 1, 2, 4, 5, & 6; Writing 1-9; Problem Solving, Project and Presentation; Various Career Technical Education Model Curriculum Standards specific to Industry Sector

April

Young Authors' Faire & Reception - April 9-13

Student authors submit their work and then participate in reading and commenting on the work of other students. Parents, teachers and members of the community also read and comment on the submitted work. (Grades K-8)

Books due: March 23

No fee

Event: Monday-Friday, April 9-13, TCOE Administration Building
6200 S. Mooney Blvd., Visalia

Reception: Thursday, April 12, 4:30- 6:30 p.m., TCOE Administration Building

Contact: Juliana Davidian at (559) 651-3003, or juliana.davidian@tcoe.org; Debra Lockwood at (559) 651-3042, or debra.lockwood@tcoe.org

CSS CCR Anchor Standards: Writing 3; Language 1 & 2; Project and Performance

Math Super Bowl - April 11

An event at which students participate in a day-long series of mathematical challenges. Students compete for individual and team awards. (Grades 7-8)

Wednesday, April 11, 8:00 a.m. - 2:30 p.m.

Fee: \$45/team

Visalia Convention Center, 303 E. Acequia, Visalia

Contact: Paula Terrill at (559) 651-0565, or paula.terrill@tcoe.org; Julie Joseph at (559) 651-3641, or julie.joseph@tcoe.org

CSS Mathematics Practices: MP1, MP2, MP3, MP5, MP6, MP7; Problem Solving

Friday Night Live Lip Sync Contest - April 13

Dozens of middle and high school performers annually vie for awards in four categories: dance, lip sync, novelty and showcase. Friday Night Live provides youth with fun, life-affirming activities promoting abstinence from alcohol, tobacco, drugs, gang participation and violence. (Grades 6-12)

Friday, April 13, 6:00 - 9:00 p.m.

Fee: \$30/team

Visalia Convention Center, 303 E. Acequia, Visalia

Contact: Adam Valencia at (559) 651-0155, ext. 3611, or avalencia@tcoe.org

CSS VAPA Standards: a, b, d; Performance

SCICON Barbecue & Wildflower Festival - April 15

Each spring, SCICON opens its beautiful campus in the Sierra foothills above Springville to the public for a day of free tours, activities and entertainment. The program also sells tickets for a delicious barbecue luncheon. Proceeds benefit the SCICON program. Open to all ages.

Sunday, April 15, 11:00 a.m. - 4:00 p.m.

No admission/activities fee

SCICON Campus, Springville

Barbecue lunch available for purchase

Contact: Dianne Shew at (559) 539-2642, or dshew@tcoe.org

Tulare County Technology Challenge (TC²) – April 17

This web-based competition is for middle and high school students to research and create a project online in four hours. Students can choose to create an interactive poster, an animated presentation, infographic, iMovie book trailers, Google map trips and more. Students will have an opportunity to showcase their work at the A Night at the 21st Century Museum event that same day. (Grades 7-12)

Tuesday, April 17, 8:30 a.m. - 1:00 p.m.

Fee: \$20/student

Contact: Paula Terrill at (559) 651-0565, or paula.terrill@tcoe.org; Katherine Goyette at (559) 651-3008, or katherine.goyette@tcoe.org

CSS CCR Anchor Standards: Writing 2, 6-8; Speaking & Listening 2, 4 & 5; CSS SEP: 1, 2, & 5

Night at the 21st Century Museum – April 17

Celebrate the rigorous and relevant Project Based Learning that is taking place in Tulare County. This unique museum experience will feature both quality exhibits and the outstanding students who created them. Docents (student participants) will showcase and expand their 21st century skills of creativity, critical thinking, collaboration and communication. The museum tour will include an opportunity to view a short presentation by student docents and allow the public to engage with students, teachers and community partners. (Grades K-12)

Tuesday, April 17, 5:00 - 7:00 p.m.

No fee

Visalia Convention Center Exhibit Hall, 303 E. Acequia, Visalia

Contact: Juliana Davidian at (559) 651-3003, or juliana.davidian@tcoe.org; Kate Stover at (559) 741-0809, or kate.stover@tcoe.org

CSS CCR Anchor Standards: Writing 7, 8 & 9; Speaking and Listening 5; CSS VAPA Standards: a, b, c, d, e; Problem Solving and Project

Foundations for Life - April 18 (Essays Due)

Foundations for Life is a maxim-based essay contest for middle and high school students to reflect upon, express and commit to profound and enduring truths. One Tulare County student in each grade level will receive a cash prize. (Grades 6-12)

Essays due April 18

No fee

Contact: Juliana Davidian at (559) 651-3003, or juliana.davidian@tcoe.org; Tim Budz at (559) 651-3046, or tim.budz@tcoe.org

CSS CCR Anchor Standards: Writing 1, 2 4 & 10; Language 1, 2 & 3

Arbor Day - April 19

A spring event for students consisting of a half-day of activities that provide an opportunity to learn about the importance and care of our trees and the environment. (Grades 3-5)

Thursday, April 19, 9:00 a.m. - 2:00 p.m., Mooney Grove Park, Visalia

No fee

Contact: Paula Terrill at (559) 651-0565, or paula.terrill@tcoe.org; Jared Marr at (559) 651-3047, or jared.marr@tcoe.org

CSS CCR Anchor Standards: Speaking and Listening 1, 2 & 3; CSS SEP: 1, 3, 6 & 8

Theatre Company Spring Musical - April 19-21

Production TBA

The Theatre Company offers classes and performance opportunities to all Tulare County youth. Fall and Spring semester workshops culminate in a full-scale production. There are minimal course fees for classes and productions. (Grades 1-12)

April 19-21

Participation Fee: Generally less than \$50/student

Public Shows: April 19-21 at 7:00 p.m.; April 21 at 2:00 p.m.

Tickets: \$12 per person, El Diamante Theater, 5100 W. Whitendale Ave., Visalia

Contact: Bethany Rader at (559) 651-1482, ext. 3645, or bethany.rader@tcoe.org

CSS VAPA Standards: a, b, c, d, e; Performance

April

Circle J BioBlitz - April 21

Students and scientists will work together to explore, discover and document insects, plants and other wildlife living at Circle J. Discoveries will be uploaded utilizing the iNaturalist App. (Grades 4-12)

Saturday, April 21, 9:00 a.m. - Noon

No fee

Circle J-Norris Ranch Campus, Springville

Contact: Nancy Bruce at (559) 539-2263, or circlej@ocsnet.net

CSS SEP: 1, 2, 3, 4 & 5

Science Olympiad (Division A) - April 28

Individual students and teams compete in a variety of challenging events that allow students to apply their understanding of science and engineering content and practices. Students will utilize the 21st century skills — communication, creativity, critical thinking, and collaboration — as they navigate the series of events. (Grades 3-6)

Saturday, April 28, 8:00 a.m. - 2:00 p.m.

Fee: \$100/team

Location Mission Oak High School, 3442 E. Bardsley Ave., Tulare

Contact: Paula Terrill at (559) 651-0565, or paula.terrill@tcoe.org; Jared Marr at (559) 651-3047, or jared.marr@tcoe.org

CSS CCR Anchor Standards: Reading 1, 2, 4, 7-10; Speaking & Listening 1-6; Writing 1, 2, 4-10; Project and Problem Solving; CSS SEP: 1-8

May

Robotics Exhibition - May 4

This event provides the opportunity for students and teams to showcase the robots that they have constructed. Robots are constructed and programmed using various kits and software. Students are not restricted to any one kit or design, and can use any technology available. Students will display their imagination and innovation in an array of events. (Grades 4-12)

Friday, May 4, 9:00 a.m. - 1:00 p.m.

No fee

TCOE Administration Building, 6200 S. Mooney Blvd., Visalia

Contact: Paula Terrill at (559) 651-0565, or paula.terrill@tcoe.org; Doug Cairns at (559) 651-3045 or doug.cairns@tcoe.org

CSS CCR Anchor Standards: Reading 1-2, 7-8 and 10; Writing 2-4, 6-7 and 9; CSS Mathematics Practices: MP1-2 and 5-6; SEP 1, 2 & 5; Project and Problem Solving

Slick Rock Film Festival - May 11

This competition provides the opportunity for middle and high school students to enter videos in over a dozen categories. The best videos will receive an award and be presented to the public at the film festival. More information, including rules and deadlines, is available at tcoe.org/SlickRock. (Grades 7-12)

Friday, May 11, 9:00 a.m. - 9:00 p.m.

No fee

Fox Theater, 300 W. Main St., Visalia

Contact: Adam Valencia at (559) 651-0155, ext. 3611, or avalencia@tcoe.org

CSS CCR Anchor Standards: Speaking and Listening 4 & 5; Writing 5; CSS VAPA Standards: a, b, c, d, e; Project

May

Reading Revolution - May 11 & 18

To promote literacy and the joy of reading, Reading Revolution is open to teams of elementary and middle school students. The teams of students will answer questions drawn from a limited list of titles released in the fall. Following school-wide competitions, schools send their top team to contend at the county event. (Grades 4-6, 7-8)

Elementary (Grades 4-6): Friday, May 11

Fee: \$25/team

8:00 a.m. - 4:00 p.m.

Middle School (Grades 7-8): Friday, May 18, 8:30 a.m. - 1:15 p.m.

TCOE Doe Complex, 7000 Doe Ave., Visalia

Contact: Paula Terrill at (559) 651-0565, or paula.terrill@tcoe.org; Debra Lockwood at (559) 651-3042, or debra.lockwood@tcoe.org

CSS CCR Anchor Standards: Reading 1, 2, 6 & 10

Tulare County Physics Day - TBA

Tulare and Kings County middle school students head to a local fair and the midway rides armed with worksheets, calculators and accelerometers for lessons in physics. (Grades 6-8)

Porterville Fairgrounds, 2700 W. Teapot Dome Ave., Porterville

No fee

Contact: Juliana Davidian at (559) 651-3003, or juliana.davidian@tcoe.org; Jared Marr at (559) 651-3047, or jared.marr@tcoe.org

CSS CCR Anchor Standards: Speaking and Listening 1; Language 1 & 6;

CSS SEP: 1-8

June

Theatre Company's Summer Camp - June

Production and Dates TBA

Elementary students are invited to participate in a three-week summer camp designed to strengthen their vocal, acting and dance skills. Students rehearse Monday-Friday, 9:00 - 11:00 a.m. The summer camp culminates with a production of the selected musical for parents and family members. (Grades 1-6)

TCOE Doe Complex, 7000 Doe Ave., Visalia

Participation Fee: \$100/student

Contact: Bethany Rader at (559) 651-1482, ext. 3645, or bethany.rader@tcoe.org

July

Theatre Company's Summer Musical - July 20-28

Production TBA

Students may audition each spring for the Theatre Company's annual summer musical. Opportunities also exist for students interested in playing in the orchestra and helping to design and construct the sets. (Grades 1-12, including graduating seniors)

July 20-28

Participation Fee: Generally less than \$50/student

Evening performances: July 20, 21, 26, 27, & 28 at 7:30 p.m.

Matinees: July 21 and 28 at 2:00 p.m.

Tickets: \$15 general admission/\$25 VIP seating per person

L.J. Williams Theater, 1001 W. Main St., Visalia

Contact: Bethany Rader at (559) 651-1482, ext. 3645, or bethany.rader@tcoe.org

CSS VAPA Standards: a, b, c, d, e; Performance

Circle J - Norris Ranch

An outdoor campus located near SCICON, Circle J provides a wide range of field study options for grades K-12, as well as community college students. Programs are designed to expand appreciation of the environmental and aesthetic values of the outdoors and to increase understanding of the relationship between humans and nature. The 2017-18 special events include:

Astronomy Nights:

Friday, September 15, 7:00 - 9:30 p.m.

Friday, October 20, 6:30 - 9:00 p.m.

Thursday, November 9, 6:00 - 8:30 p.m.

Thursday, March 15, 7:00 - 9:30 p.m.

Birding 101: Saturday, December 2, 9:00 a.m. - Noon

SCICON and Circle J Christmas Bird Count: Saturday, December 16, 8:30 a.m.

Reservations required.

Contact: Nancy Bruce at (559) 539-2263, or circlej@ocsnet.net

Planetarium & Science Center

A multimedia facility designed to provide unique and exciting learning experiences which supplement and reinforce the classroom curriculum, the Sam B. Peña Planetarium and Science Center offers a variety of programs throughout the school year at no cost to Tulare County students. Out-of-county schools may attend for a small fee. (Grades K-8)

Reservations required.

For a listing of programs and shows, including evening public shows, call (559) 737-6334 or visit tcoe.org/planetarium.

SCICON

SCICON is the nationally-recognized outdoor science and conservation school located above Springville. Fifth- and sixth-grade students visit for one-day or week-long experiences in natural science and conservation. Students also experience SCICON's natural history museum, raptor center, planetarium and observatory and tree nursery.

Reservations required.

Contact: Dianne Shew at (559) 539-2642, or visit tcoe.org/scicon.

Theatre Company's On Stage Program

The Theatre Company provides the directors and all the resources a school needs — including costumes, props and backdrops — to produce a 35-minute musical involving up to 50 students. The well-known children's musicals offered are ideal for after school programs, fundraisers and more. (Grades K-8)

Contact: Bethany Rader at (559) 651-1482, ext. 3645, or bethany.rader@tcoe.org

Tulare County History of Farm Labor & Agriculture Museum Theater

Located within the Tulare County History of Farm Labor & Agriculture Museum in Visalia's Mooney Grove Park, this 60-seat theater offers a variety of TCOE-produced videos on the various ethnic groups that settled in Tulare County to farm and ranch. Teachers are encouraged to contact museum staff to schedule visits. (Grades K-12)

Contact: Amy King at (559) 733-6616, or aking1@co.tulare.ca.us

College and Career Readiness Anchor Standards K-12

The College and Career Readiness (CCR) standards define general, cross-disciplinary literacy expectations that must be met for students to be prepared to enter college and workforce training programs ready to succeed. Students advancing through the grades are expected to meet each year's grade-specific standards, retain or further develop skills and understandings mastered in preceding grades, and work steadily toward meeting the more general expectations described by the CCR standards.

Reading

Key Ideas and Details

1. Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.
2. Determine central ideas or themes of a text and analyze their development; summarize the key supporting details and ideas.
3. Analyze how and why individuals, events, and ideas develop and interact over the course of a text.

Craft and Structure

4. Interpret words and phrases as they are used in a text, including determining technical, connotative, and figurative meanings, and analyze how specific word choices shape meaning or tone.
5. Analyze the structure of texts, including how specific sentences, paragraphs, and larger portions of the text (e.g., a section, chapter, scene, or stanza) relate to each other and the whole.
6. Assess how point of view or purpose shapes the content and style of a text.

Integration of Knowledge and Ideas

7. Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.
8. Delineate and evaluate the argument and specific claims in a text, including the validity of the reasoning as well as the relevance and sufficiency of the evidence.
9. Analyze how two or more texts address similar themes or topics in order to build knowledge or to compare the approaches the authors take.

Range of Reading and Level of Text Complexity

10. Read and comprehend complex literary and informational texts independently and proficiently.

Writing

Text Types and Purposes

1. Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.
2. Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.
3. Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences.

Production and Distribution of Writing

4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
5. Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.
6. Use technology, including the Internet, to produce and publish writing and to interact and collaborate with others.

Research to Build and Present Knowledge

7. Conduct short, as well as more sustained, research projects based on focused questions, demonstrating understanding of the subject under investigation.
8. Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism.
9. Draw evidence from literary or informational texts to support analysis, reflection, and research.

Range of Writing

10. Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences.

Speaking and Listening**Comprehension and Collaboration**

1. Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively.
2. Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally.
3. Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric.

Presentation of Knowledge and Ideas

4. Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.
5. Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.
6. Adapt speech to a variety of contexts and communicative tasks, demonstrating command of formal English when indicated or appropriate.

Language**Conventions of Standard English**

1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.

Knowledge of Language

3. Apply knowledge of language to understand how language functions in different contexts, to make effective choices for meaning or style, and to comprehend more fully when reading or listening.

Vocabulary Acquisition and Use

4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases by using context clues, analyzing meaningful word parts, and consulting general and specialized reference materials, as appropriate.
5. Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.
6. Acquire and use accurately a range of general academic and domain-specific words and phrases sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when encountering an unknown term important to comprehension or expression.

Standards for Mathematical Practice

The Standards for Mathematical Practice describe varieties of expertise that mathematics educators at all levels should seek to develop in their students. These practices rest on important “processes and proficiencies” with long-standing importance in mathematics education. The first of these are the NCTM (National Council of Teachers of Mathematics) process standards of problem solving, reasoning and proof, communication, representation, and connections. The second are the strands of mathematical proficiency specified in the National Research Council’s report *Adding It Up* — adaptive reasoning, strategic competence, conceptual understanding (comprehension of mathematical concepts, operations and relations), procedural fluency (skill in carrying out procedures flexibly, accurately, efficiently and appropriately), and productive disposition (habitual inclination to see mathematics as sensible, useful, and worthwhile, coupled with a belief in diligence and one’s own efficacy).

1. Make sense of problems and persevere in solving them

Mathematically-proficient students start by explaining to themselves the meaning of a problem and looking for entry points to its solution. They analyze givens, constraints, relationships, and goals. They make conjectures about the form and meaning of the relation and plan a solution pathway rather than simply jumping into a solution attempt. They consider analogous problems, and try special cases and simpler forms of the original problem in order to gain insight into its solution. They monitor and evaluate their progress and change course if necessary. Older students might, depending on the context of the problem, transform algebraic expressions or change the viewing window on their graphing calculator to get the information they need. Mathematically-proficient students can explain correspondences between equations, verbal descriptions, tables, and graphs or draw diagrams of important features and relationships, graph data, and search for regularity or trends. Younger students might rely on using concrete objects or pictures to help conceptualize and solve a problem. Mathematically-proficient students check their answers to problems using a different method, and they continually ask themselves, “Does this make sense?” They can understand the approaches of others to solving complex problems and identify correspondences between different approaches.

2. Reason abstractly and quantitatively

Mathematically-proficient students make sense of quantities and their relationships in problem situations. They bring two complementary abilities to bear on problems

involving quantitative relationships: the ability to *decontextualize* — to abstract a given situation and represent it symbolically and manipulate the representing symbols as if they have a life of their own, without necessarily attending to their referents — and the ability to *contextualize*, to pause as needed during the manipulation process in order to probe into the referents for the symbols involved. Quantitative reasoning entails habits of creating a coherent representation of the problem at hand; considering the units involved; attending to the meaning of quantities, not just how to compute them; and knowing and flexibly using different properties of operations and objects.

3. Construct viable arguments and critique the reasoning of others

Mathematically-proficient students understand and use stated assumptions, definitions, and previously established results in constructing arguments. They make conjectures and build a logical progression of statements to explore the truth of their conjectures. They are able to analyze situations by breaking them into cases, and can recognize and use counterexamples. They justify their conclusions, communicate them to others, and respond to the arguments of others. They reason inductively about data, making plausible arguments that take into account the context from which the data arose.

Mathematically-proficient students are also able to compare the effectiveness of two plausible arguments, distinguish correct logic or reasoning from that which is flawed, and — if there is a flaw in an argument — explain what it is. Elementary students can construct arguments using concrete referents such as objects, drawings, diagrams, and actions. Such arguments can make sense and be correct, even though they are not generalized or made formal until later grades. Later, students learn to determine domains to which an argument applies. Students at all grades can listen or read the arguments of others, decide whether they make sense, and ask useful questions to clarify or improve the arguments.

4. Model with mathematics

Mathematically-proficient students can apply the mathematics they know to solve problems arising in everyday life, society, and the workplace. In early grades, this might be as simple as writing an addition equation to describe a situation. In middle grades, a student might apply proportional reasoning to plan a school event or analyze a problem in the community. By high school, a student might use geometry to solve a design problem or use a function to describe how one quantity of interest depends on another. Mathematically-proficient students who can apply what they know are comfortable making assumptions and approximations to simplify a complicated situation, realizing that these may need revision later. They are able to identify important quantities in a practical situation and map their relationships using such tools as diagrams, two-way tables, graphs, flowcharts and formulas. They can analyze those relationships mathematically to draw conclusions. They routinely interpret their mathematical results in the context of the situation and reflect on whether the results make sense, possibly improving the model if it has not served its purpose.

5. Use appropriate tools strategically

Mathematically-proficient students consider the available tools when solving a mathematical problem. These tools might include pencil and paper, concrete models,

a ruler, a protractor, a calculator, a spreadsheet, a computer algebra system, a statistical package, or dynamic geometry software. Proficient students are sufficiently familiar with tools appropriate for their grade or course to make sound decisions about when each of these tools might be helpful, recognizing both the insight to be gained and their limitations. For example, mathematically-proficient high school students analyze graphs of functions and solutions generated using a graphing calculator. They detect possible errors by strategically using estimation and other mathematical knowledge. When making mathematical models, they know that technology can enable them to visualize the results of varying assumptions, explore consequences, and compare predictions with data. Mathematically-proficient students at various grade levels are able to identify relevant external mathematical resources, such as digital content located on a website, and use them to pose or solve problems. They are able to use technological tools to explore and deepen their understanding of concepts.

6. Attend to precision

Mathematically-proficient students try to communicate precisely to others. They try to use clear definitions in discussion with others and in their own reasoning. They state the meaning of the symbols they choose, including using the equal sign consistently and appropriately. They are careful about specifying units of measure, and labeling axes to clarify the correspondence with quantities in a problem. They calculate accurately and efficiently, express numerical answers with a degree of precision appropriate for the problem context. In the elementary grades, students give carefully formulated explanations to each other. By the time they reach high school they have learned to examine claims and make explicit use of definitions.

7. Look for and make use of structure

Mathematically-proficient students look closely to discern a pattern or structure. Young students, for example, might notice that three and seven more is the same amount as seven and three more, or they may sort a collection of shapes according to how many sides the shapes have. Later, students will see 7×8 equals the well-remembered $7 \times 5 + 7 \times 3$, in preparation for learning about the distributive property. In the expression $x^2 + 9x + 14$, older students can see the 14 as 2×7 and the 9 as $2 + 7$. They recognize the significance of an existing line in a geometric figure and can use the strategy of drawing an auxiliary line for solving problems. They also can step back for an overview and shift perspective. They can see complicated things, such as some algebraic expressions, as single objects or as being composed of several objects. For example, they can see $5 - 3(x - y)^2$ as 5 minus a positive number times a square and use that to realize that its value cannot be more than 5 for any real numbers x and y .

8. Look for and express regularity in repeated reasoning

Mathematically-proficient students notice if calculations are repeated, and look both for general methods and for shortcuts. Upper elementary students might notice when dividing 25 by 11 that they are repeating the same calculations over and over again, and conclude they have a repeating decimal. By paying attention to the calculation of slope as they repeatedly check whether points are on the line through $(1, 2)$ with slope 3, middle school students might abstract the equation $(y - 2)/(x - 1) = 3$. Noticing the regularity in the way terms cancel when expanding $(x - 1)(x + 1)$, $(x - 1)(x^2 + x + 1)$, and $(x - 1)(x^3 +$

$x^2 + x + 1$) might lead them to the general formula for the sum of a geometric series. As they work to solve a problem, mathematically-proficient students maintain oversight of the process, while attending to the details. They continually evaluate the reasonableness of their intermediate results.

Connecting the Standards for Mathematical Practice to the Standards for Mathematical Content

The Standards for Mathematical Practice describe ways in which developing student practitioners of the discipline of mathematics increasingly ought to engage with the subject matter as they grow in mathematical maturity and expertise throughout the elementary, middle and high school years. Designers of curricula, assessments, and professional development should all attend to the need to connect the mathematical practices to mathematical content in mathematics instruction.

The Standards for Mathematical Content are a balanced combination of procedure and understanding. Expectations that begin with the word “understand” are often especially good opportunities to connect the practices to the content. Students who lack understanding of a topic may rely on procedures too heavily. Without a flexible base from which to work, they may be less likely to consider analogous problems, represent problems coherently, justify conclusions, apply the mathematics to practical situations, use technology mindfully to work with the mathematics, explain the mathematics accurately to other students, step back for an overview, or deviate from a known procedure to find a shortcut. In short, a lack of understanding effectively prevents a student from engaging in the mathematical practices.

In this respect, those content standards which set an expectation of understanding are potential “points of intersection” between the Standards for Mathematical Content and the Standards for Mathematical Practice. These points of intersection are intended to be weighted toward central and generative concepts in the school mathematics curriculum that most merit the time, resources, innovative energies, and focus necessary to qualitatively improve the curriculum, instruction, assessment, professional development, and student achievement in mathematics.

Scientific and Engineering Practices

Standards and performance expectations that are aligned to the science framework must take into account that students cannot fully understand scientific and engineering ideas without engaging in the practices of inquiry and the discourses by which such ideas are developed and refined. At the same time, they cannot learn or show competence in practices except in the context of specific content. The term “practices” is used instead of a term such as “skills” to emphasize that engaging in scientific investigation requires not only skill but also knowledge that is specific to each practice.

The eight practices of science and engineering that the Framework identifies as essential for all students to learn and describes in detail are listed below:

Practice 1: Asking Questions and Defining Problems

A practice of science is to ask and refine questions that lead to descriptions and explanations of how the natural and designed world works and which can be empirically tested.

Engineering questions clarify problems to determine criteria for successful solutions and identify constraints to solve problems about the designed world. Both scientists and engineers also ask questions to clarify the ideas of others.

Practice 2: Planning and Carrying Out Investigations

Scientists and engineers plan and carry out investigations in the field or laboratory, working collaboratively as well as individually. Their investigations are systematic and require clarifying what counts as data and identifying variables or parameters.

Engineering investigations identify the effectiveness, efficiency, and durability of designs under different conditions.

Practice 3: Analyzing and Interpreting Data

Scientific investigations produce data that must be analyzed in order to derive meaning. Because data patterns and trends are not always obvious, scientists use a range of tools—including tabulation, graphical interpretation, visualization, and statistical analysis—to identify the significant features and patterns in the data. Scientists identify sources of error in the investigations and calculate the degree of certainty in the results. Modern technology makes the collection of large data sets much easier, providing secondary sources for analysis.

Engineering investigations include analysis of data collected in the tests of designs. This allows comparison of different solutions and determines how well each meets specific design criteria—that is, which design best solves the problem within given constraints. Like scientists, engineers require a range of tools to identify patterns within data and interpret the results. Advances in science make analysis of proposed solutions more efficient and effective.

Practice 4: Developing and Using Models

A practice of both science and engineering is to use and construct models as helpful tools for representing ideas and explanations. These tools include diagrams, drawings, physical replicas, mathematical representations, analogies, and computer simulations.

Modeling tools are used to develop questions, predictions and explanations; analyze and identify flaws in systems; and communicate ideas. Models are used to build and revise scientific explanations and proposed engineered systems.

Measurements and observations are used to revise models and designs.

Practice 5: Constructing Explanations and Designing Solutions

The products of science are explanations and the products of engineering are solutions. The goal of science is the construction of theories that provide explanatory accounts of the world. A theory becomes accepted when it has multiple lines of empirical evidence and greater explanatory power of phenomena than previous theories.

The goal of engineering design is to find a systematic solution to problems that is based on scientific knowledge and models of the material world. Each proposed solution results from a process of balancing competing criteria of desired functions, technical feasibility, cost, safety, aesthetics, and compliance with legal requirements. The optimal choice depends on how well the proposed solutions meet criteria and constraints.

Practice 6: Engaging in Argument from Evidence

Argumentation is the process by which explanations and solutions are reached. In science and engineering, reasoning and argument based on evidence are essential to identifying the best explanation for a natural phenomenon or the best solution to a design problem.

Scientists and engineers use argumentation to listen to, compare, and evaluate competing ideas and methods based on merits.

Scientists and engineers engage in argumentation when investigating a phenomenon, testing a design solution, resolving questions about measurements, building data models, and using evidence to identify strengths and weaknesses of claims.

Practice 7: Using Mathematics and Computational Thinking

In both science and engineering, mathematics and computation are fundamental tools for representing physical variables and their relationships. They are used for a range of tasks such as constructing simulations; statistically analyzing data; and recognizing, expressing, and applying quantitative relationships.

Mathematical and computational approaches enable scientists and engineers to predict the behavior of systems and test the validity of such predictions. Statistical methods are frequently used to identify significant patterns and establish correlational relationships.

Practice 8: Obtaining, Evaluating, and Communicating Information

Scientists and engineers must be able to communicate clearly and persuasively the ideas and methods they generate. Critiquing and communicating ideas individually and in groups is a critical professional activity.

Communicating information and ideas can be done in multiple ways: using tables, diagrams, graphs, models, and equations as well as orally, in writing, and through extended discussions. Scientists and engineers employ multiple sources to acquire information that is used to evaluate the merit and validity of claims, methods, and designs.

Visual and Performing Arts Content Standards

In 2001, the California State Board of Education adopted content standards for the Visual & Performing Arts (VAPA) for students in pre-kindergarten through grade 12. The VAPA standards are organized around five component strands that overlay the four arts disciplines (dance, music, theatre, and visual arts) for each grade level. The content within the strands builds sequentially as the student advances through the grades. The five component strands for all arts are as follows:

- a. **Artistic Perception** - Processing, analyzing, and responding to sensory information through the use of the language and skills unique to dance, music, theatre, and the visual arts.
- b. **Creative Expression** - Creating, performing, and participating in the arts disciplines. Students apply processes and skills in composing, arranging, and performing a work

and use a variety of means to communicate meaning and intent in their own original formal and informal works.

- c. **Historical & Cultural Context** - The work students do toward understanding the historical contributions and cultural dimensions of an arts discipline. Students analyze roles, functions, development in the discipline, and human diversity as it relates to that discipline. They also examine closely musicians, composers, artists, writers, actors, dancers, and choreographers as well as cultures and historical periods.
- d. **Aesthetic Valuing** - Analyzing and critiquing works of dance, music, theatre, and the visual arts. Students apply processes and skills to productions or performances. They also critically assess and derive meaning from the work of a discipline, including their own, and from performances and original works based on the elements and principles of an arts discipline, aesthetic qualities, and human responses.
- e. **Connections, Relationships, and Applications** - Connecting and applying what is learned in one arts discipline and comparing it to learning in the other arts, other subject areas, and careers. Students develop competencies and creative skills in problem solving, communication, and time management that contribute to lifelong learning, including career skills. They also learn about careers in and related to arts disciplines.

Tulare County
Office of Education

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