**Report of the State Board of Education**
**Committee of the Full Board**
**September 8, 2020**

The State Board of Education Committee of the Full Board met at 8:10 a.m. on Wednesday, September 8, 2020, in the State Board of Education Room, #1-104, of the William B. Travis Building, 1701 N. Congress Avenue, Austin, Texas. Attendance was noted as follows:

Present: Keven Ellis, chair; Lawrence A. Allen, Jr.; Donna Bahorich; Barbara Cargill; Ruben Cortez, Jr.; Pat Hardy; Pam Little; Tom Maynard; Sue Melton-Malone; Ken Mercer; Georgina C. Pérez; Marisa B. Perez-Diaz; Matt Robinson; Marty Rowley

Absent: Aicha Davis

**Public Testimony**

The Committee of the Full Board heard public testimony on agenda items #1, #2, #3 and #4. Information regarding the individuals who presented public testimony is included in the discussion of that item.

## DISCUSSION ITEMS

**1. Public Hearing Regarding Instructional Materials Submitted for Adoption by the State Board of Education Under *Proclamation 2021***
(Board agenda page I-1)

Public testimony was provided by the following individual:

NAME: Gary Moore
AFFILIATION: Self

**2. Public Hearing on Proposed Revisions to 19 TAC Chapter 112, Texas Essential Knowledge and Skills for Science**
(Board agenda page I-2)

Invited testimony was provided by the following individuals:

NAME: Raymond Bohlin, Ph.D.
AFFILIATION: Content Advisor

NAME: Dale Woerner, Ph.D.
AFFILIATION: Content Advisor

NAME: Ron Weatherington, Ph.D.
AFFILIATION: Content Advisor

NAME: Catherine Howard Ph.D., Ed.D.
AFFILIATION: Content Advisor

NAME: Arden Zimmerman
AFFILIATION: Content Advisor

NAME: Cynthia Ontiveros, Ed.D.
AFFILIATION: Content Advisor

NAME: Amy Senato
AFFILIATION: Content Advisor

NAME: Gloria Chatelain
AFFILIATION: Content Advisor

NAME: Denise Haynes
AFFILIATION: Work Group Member

NAME: Lisa Brady
AFFILIATION: Work Group Member

NAME: Michael Clayton
AFFILIATION: Work Group Member

NAME: Matt Canafax
AFFILIATION: Work Group Member

Public testimony was provided by the following individuals:

NAME: Geoffrey Carlisle
AFFILIATION: Self

NAME: Eliza Epstein
AFFILIATION: Self

NAME: Carisa Lopez
AFFILIATION: Texas Freedom Network

NAME: Courtney Crosby
AFFILIATION: Self

NAME: Kate Jaceldo
AFFILIATION: Self

NAME: Paul Compton
AFFILIATION: Self

NAME: Jennifer Meyer
AFFILIATION: Science Teachers Association of Texas

NAME: Giselle Fuller
AFFILIATION: Self

NAME: Natalie Tull
AFFILIATION: Self

NAME: Susan Gillette
AFFILIATION: Citizens' Climate Lobby, Lubbock Chapter

NAME: Bill Robinson
AFFILIATION: Self

NAME: Stephanie Thoreson
AFFILIATION: Self

NAME: Ashley Dobravolsky
AFFILIATION: Self

NAME: Suzi Nelson
AFFILIATION: Self

NAME: Robin Herskowitz
AFFILIATION: Self

NAME: Kara Swindell
AFFILIATION: Science Teachers Association of Texas

NAME: Mary Elizabeth Castle
AFFILIATION: Texas Values Action

NAME: Sarah Chestnut
AFFILIATION: Self

NAME: Marian Knowlton
AFFILIATION: Self

NAME: Calvin Jorden
AFFILIATION: Self

NAME: Robert Bohmfalk
AFFILIATION: Self

NAME: Sara Fields
AFFILIATION: Self

NAME: Sharon Burley
AFFILIATION: HealthStart Foundation

NAME: Sierra Barletta
AFFILIATION: Self

NAME: Jonathan Covey
AFFILIATION: Texas Values Action

NAME: John Elford
AFFILIATION: Self

NAME: Daniel Williams
AFFILIATION: Self

NAME: Karen Matsler
AFFILIATION: Texas Section of American Association of Physics Teachers

NAME: Margaret Preston
AFFILIATION: Self

NAME: Ann Mulvihill
AFFILIATION: Texas Science Educator Leadership Association

NAME: Jessica Brown
AFFILIATION: Self

NAME: Glenn Winters
AFFILIATION: Self

NAME: Linzy Foster
AFFILIATION: Self

NAME: Adrienne Abrahamson
AFFILIATION: Self

NAME: Sandra West
AFFILIATION: Self

NAME: Jason Baughman
AFFILIATION: Texas Science Education Leadership Organization

NAME: Toni Sauncy
AFFILIATION: The American Association of Physics Teachers and the Texas Section of the American Association of Physics Teachers

NAME: Liz Case Pickens
AFFILIATION: Self

NAME: Robert Unger
AFFILIATION: Self

NAME: Curt Wyman
AFFILIATION: Self

NAME: Marilyn Kortum
AFFILIATION: Self

NAME: Susan Casey
AFFILIATION: Self

NAME: Tom Winkler
AFFILIATION: Self

NAME: Jennifer Ivey
AFFILIATION: Self

NAME: Deyadira Arellano
AFFILIATION: Self

**3. Public Hearing on Proposed Revisions to 19 TAC Chapter 116, Texas Essential Knowledge and Skills for Physical Education**
(Board agenda page I-4)

Invited testimony was provided by the following individuals:

NAME: David Cantu
AFFILIATION: Content Advisor

NAME: Rose Haggerty
AFFILIATION: Content Advisor

NAME: Mary Morris, Ed.D.
AFFILIATION: Content Advisor

NAME: Cinnamon Sheffield, Ed.D.
AFFILIATION: Content Advisor

NAME: Kelley Sullivan
AFFILIATION: Content Advisor

NAME: Pam Tevis
AFFILIATION: Content Advisor

NAME: Helen Wagner
AFFILIATION: Content Advisor

Public testimony was provided by the following individuals:

NAME: Samuel Saenz
AFFILIATION: Self

NAME: Amber Sladecek
AFFILIATION: Self

**4. Public Hearing on Proposed Revisions to 19 TAC Chapter 115, Texas Essential Knowledge and Skills for Health Education**
(Board agenda page I-6)

Invited testimony was provided by the following individuals:

NAME: Flip Flippen
AFFILIATION: Content Advisor

NAME: Jack Lesch, M.D.
AFFILIATION: Content Advisor

NAME: Mike Love, M.D.
AFFILIATION: Content Advisor

NAME: Feyi Obamehinti, Ed.D.
AFFILIATION: Content Advisor

NAME: Dawn Riley
AFFILIATION: Content Advisor

NAME: Linda Flower, M.D.
AFFILIATION: Work Group Member

Public testimony was provided by the following individuals:

NAME: Ann Phan
AFFILIATION: Self

NAME: Christopher Hamilton
AFFILIATION: Texas Health Action

NAME: Cynthia Soliz
AFFILIATION: Self

NAME: Geoffrey Carlisle
AFFILIATION: Self

NAME: Joaquin Evans
AFFILIATION: Bethel Church Austin

NAME: Jules Mandel
AFFILIATION: Texas Freedom Network

NAME: Eliza Epstein
AFFILIATION: Self

NAME: Jeana Nam
AFFILIATION: Self

NAME: Tammy Phan
AFFILIATION: Self

NAME: Katie Hays
AFFILIATION: Self

NAME: Maya Cantu
AFFILIATION: Self

NAME: Frederick Heather
AFFILIATION: Texas GSA Network

NAME: Diana Richards
AFFILIATION: Self

NAME: Courtney Crosby
AFFILIATION: Self

NAME: Eleanor Grano
AFFILIATION: Jane’s Due Process

NAME: Pratyusha Pilla
AFFILIATION: Self

NAME: Anthony Betori
AFFILIATION: Self

NAME: Angela Williams
AFFILIATION: Just Texas

NAME: Deborah Simmons
AFFILIATION: Self

NAME: Susan Douglas
AFFILIATION: Self

NAME: Eva Rangel
AFFILIATION: Self

NAME: Leslie Lopez
AFFILIATION: Self

NAME: Giselle Fuller
AFFILIATION: Self

NAME: Jessica Chester
AFFILIATION: Self

NAME: Evelyn Delgado
AFFILIATION: Healthy Futures of Texas

NAME: Christy Baca
AFFILIATION: Self

NAME: Kate Jaceldo
AFFILIATION: Self

NAME: Elizabeth Tang
AFFILIATION: Self

NAME: Monica Rivera
AFFILIATION: Healthy Futures of Texas

NAME: Carmen Lizarraga
AFFILIATION: Self

NAME: Maria Monge
AFFILIATION: Texas Medical Association and Texas Pediatric Society

NAME: Georgia Sasso
AFFILIATION: Self

NAME: Natalie Tull
AFFILIATION: Self

NAME: Stephanie Thoreson
AFFILIATION: Self

NAME: Jorge Ordonez
AFFILIATION: Self

NAME: Shah Sultan Velani
AFFILIATION: Self

NAME: Allison Winnike
AFFILIATION: The Immunization Partnership

NAME: Anne Newman
AFFILIATION: Self

NAME: Lorie Meynig
AFFILIATION: Self

NAME: Lee Spiller
AFFILIATION: Citizens Commission on Human Rights-Texas

NAME: William McDonald
AFFILIATION: Self

NAME: Karole Fedrick
AFFILIATION: Self

NAME: Roy Bishop
AFFILIATION: Self

NAME: Brett Cooper
AFFILIATION: Texas Pediatric Society, Texas Medical Association

NAME: Ashley Dobravolsky
AFFILIATION: Self

NAME: Francisco Aviles
AFFILIATION: Self

NAME: Elishia Featherston
AFFILIATION: True Connections Pediatrics

NAME: Susanne Kerns
AFFILIATION: Self

NAME: Rosann Mariappuram
AFFILIATION: Jane's Due Process

NAME: Remington Johnson
AFFILIATION: Self

NAME: Jessica Soukup
AFFILIATION: Self

NAME: Nora Gelperin
AFFILIATION: Advocates for Youth

NAME: Gloria Li
AFFILIATION: Self

NAME: Anita Moreno
AFFILIATION: Self

NAME: Hannah Nguyen
AFFILIATION: Self

NAME: Caroline Landon
AFFILIATION: Self

NAME: Briana Ekwem
AFFILIATION: Self

NAME: Reuben Martin Bagadion
AFFILIATION: Fort Bend S.U.R.F.

NAME: Lisa Williams
AFFILIATION: Self

NAME: Kaylee Nguyen
AFFILIATION: Self

NAME: Wanda Zamorano
AFFILIATION: Self

NAME: Cristin Padgett
AFFILIATION: Self

NAME: Eman Attar
AFFILIATION: Self

NAME: Sarah Yates
AFFILIATION: Texas Freedom Network

NAME: Ricardo Martinez
AFFILIATION: Equality Texas

NAME: Randy Rives
AFFILIATION: Self

NAME: Ophra Leyser-Whalen
AFFILIATION: Self

NAME: Avery Eckert
AFFILIATION: Self

**MOTION AND VOTE:** *It was moved by Mr. Rowley, seconded by Mr. Maynard, and carried unanimously, to extend the public hearing on proposed revisions to 19 TAC Chapter 115, Texas Essential Knowledge and Skills for Health Education, to 9:00 p.m.*

Public testimony was provided by the following individuals:

NAME: Nneka Iheanacho
AFFILIATION: Self

NAME: Nino Testa
AFFILIATION: Self

NAME: Alice Gray
AFFILIATION: Self

NAME: Calvin Jorden
AFFILIATION: Self

NAME: Anna Nguyen
AFFILIATION: Self

NAME: Alyssa Fields
AFFILIATION: Self

NAME: Alonzo Blankenship
AFFILIATION: Self

NAME: Nokita Moore
AFFILIATION: Self

NAME: Molly Clayton
AFFILIATION: Texas Campaign to Prevent Teen Pregnancy

NAME: Rachel Kitch
AFFILIATION: Self

NAME: Jennifer Walker
AFFILIATION: Self

NAME: Vanessa MacDougal
AFFILIATION: Self

NAME: Monica Cline
AFFILIATION: It Takes a Family

NAME: Saffyre Falkenberg
AFFILIATION: Self

NAME: Jennifer Kratky
AFFILIATION: Self

NAME: Paula Hilliard
AFFILIATION: Self

NAME: Alice Linahan
AFFILIATION: Self

NAME: Cimarron Gilson
AFFILIATION: Self

NAME: Moniqa Paullet
AFFILIATION: Self

NAME: Jessica Brown
AFFILIATION: Self

NAME: Alexandra Sheldon
AFFILIATION: Self

NAME: Sophie Schochet
AFFILIATION: Self

NAME: Andrea Elizondo
AFFILIATION: Self

NAME: Melissa Beckett
AFFILIATION: Self

NAME: Cecelia Sanchez
AFFILIATION: Self

NAME: Nandita Kumar
AFFILIATION: Self

NAME: Michelle Platt
AFFILIATION: Self

NAME: Lori Kuykendall
AFFILIATION: Self

NAME: Kim Macpherson
AFFILIATION: Self

NAME: Becky Baker
AFFILIATION: Self

NAME: Jeffrey Morgan
AFFILIATION: Self

NAME: Rebeca Hardy
AFFILIATION: Self

NAME: Melissa Lamm
AFFILIATION: Self

NAME: Irene Ericksen
AFFILIATION: The Institute for Research and Evaluation

NAME: Robyn Luscombe
AFFILIATION: Self

NAME: Jen O'Neal
AFFILIATION: Feeding Texas

NAME: Sofia Valenzuela
AFFILIATION: Self

NAME: Litza Gonzales
AFFILIATION: Self

NAME: Doug Harrington
AFFILIATION: Self

NAME: Lauren Gonzalez
AFFILIATION: Self

NAME: Megan Haynsworth
AFFILIATION: Self

NAME: Nan Kirkpatrick
AFFILIATION: Self

NAME: Stephanie Hebert
AFFILIATION: Self

NAME: Debra Convery
AFFILIATION: Self

**MOTION AND VOTE:** *It was moved by Ms. Perez-Diaz and seconded by Mr. Cortez to extend the public hearing on proposed revisions to 19 TAC Chapter 115, Texas Essential Knowledge and Skills for Health Education, to hear the remainder of the registered testimony. The motion failed.*

Dr. Ellis adjourned the meeting at 9:16 p.m.

**Report of the State Board of Education**
**Committee of the Full Board**
**September 9, 2020**

The State Board of Education Committee of the Full Board met at 8:15 a.m. on Wednesday, September 9, 2020, in the State Board of Education Room, #1-104, of the William B. Travis Building, 1701 N. Congress Avenue, Austin, Texas. Attendance was noted as follows:

Present: Keven Ellis, chair; Lawrence A. Allen, Jr.; Donna Bahorich; Barbara Cargill; Ruben Cortez, Jr.; Aicha Davis; Pat Hardy; Pam Little; Tom Maynard; Sue Melton-Malone; Ken Mercer; Georgina C. Pérez; Marisa B. Perez-Diaz; Matt Robinson; Marty Rowley

**Public Testimony**

The Committee of the Full Board received no presentations of public testimony.

The Committee of the Full Board considered items in the following order: Item number 1, 2, 3, 4, 6, 7, 5

**DISCUSSION ITEM**

**1. Commissioner's Comments**
**(**Board agenda page I-8)

Commissioner of Education Mike Morath presented an update on the implementation of the House Bill 3 Texas Reading Academies. He also provided background information regarding charter schools including the number of charter school closures over time, charter school funding, and the charter application review and approval process for Generation 25. Commissioner Morath also provided a high-level overview of each Generation 25 charter applicant.

**CONSENT ITEM**

**2. Decision on the Percentage Distribution of the Permanent School Fund for Fiscal Years 2022 and 2023 and Related Fund Transfers**
(Board agenda page I-9)
[Consent agenda item #(1)]

Holland Timmins, executive administrator and chief investment officer, presented an overview of General Land Office contributions and the Permanent School Fund (PSF) distribution rate decision-making process. He explained that a final decision will be made in November.

Mark Shewmaker, managing director of special projects, presented an overview of the authority of the SBOE to transfer $300 million from the portion of the PSF it manages to the Real Estate Special Fund Account with subsequent distribution to the Available School Fund in FY 2021.

Board members expressed their intent that this be a one-time action to provide additional financial contributions to help address economic impacts of the COVID-19 pandemic.

**MOTION AND VOTE:** *It was moved by Mr. Maynard, seconded by Dr. Robinson, and carried unanimously, recommend that the State Board of Education transfer $300 million from the portion of the Permanent School Fund managed by the SBOE to the Real Estate Special Fund Account of the PSF in accordance with Texas Education Code, §43.0051, to be distributed to the Available School Fund for Fiscal Year 2021 and that the SBOE determines that such transfer is in the best interest of the PSF due to the historic nature of the current public health and economic circumstances resulting from the COVID-19 pandemic and its impact on the school children of Texas.*

*(Ms. Davis and Ms. Perez-Diaz were absent for the vote.)*

Carlos Veintemillas, deputy chief investment officer and director of fixed income, presented the PSF staff recommendation for a distribution rate of between 3.90% and 4.18% for Fiscal Years 2022-2023. Keith Stronkowsky, senior consultant, NEPC, the PSF general consultant, then presented NEPC's recommendation that a distribution rate of up to 4.08% would be acceptable. Mr. Stronkowsky explained that the staff recommendation was largely in agreement with NEPC's recommendation with slight differences in the inflation projections.

**MOTION AND VOTE:** *It was moved by Mr. Maynard, seconded by Mr. Cortez, and carried to recommend that the State Board of Education approve a percentage distribution of 4.00% from the Permanent School Fund to the Available School Fund for the 2022-2023 state fiscal biennium.*

*(Ms. Davis was absent for the vote.)*

## ACTION ITEMS

**3. Proposed New 19 TAC Chapter 112, Texas Essential Knowledge and Skills for Science, Subchapter C, High School, §§112.41-112.45**
**(First Reading and Filing Authorization)**
(Board agenda page I-11)
[Official agenda item #3]

Ms. Ramos explained that this item proposes new Texas Essential Knowledge and Skills (TEKS) for the four high school science courses with the highest enrollment: biology, chemistry, Integrated Physics and Chemistry (IPC), and physics.

**MOTION:** *It was moved by Mr. Maynard and seconded Mrs. Little to recommend that the State Board of Education approve for first reading and filing authorization proposed new 19 TAC Chapter 112, Texas Essential Knowledge and Skills for Science, Subchapter C, High School, §§112.41, Implementation of Texas Essential Knowledge and Skills for Science, High School, Adopted 2020; 112.42, Biology (One Credit), Adopted 2020; 112.43, Chemistry (One Credit), Adopted 2020; 112.44, Integrated Physics and Chemistry (One Credit), Adopted 2020; and 112.45, Physics (One Credit), Adopted 2020.*

The committee amended the proposal (Attachment A).

**VOTE:** *A vote was taken on the original motion to recommend that the State Board of Education approve for first reading and filing authorization proposed new 19 TAC Chapter 112, Texas Essential Knowledge and Skills for Science, Subchapter C, High School, §§112.41, Implementation of Texas Essential Knowledge and Skills for Science, High School, Adopted 2020; 112.42, Biology (One Credit), Adopted 2020; 112.43, Chemistry (One Credit), Adopted 2020; 112.44, Integrated Physics and Chemistry (One Credit), Adopted 2020; and 112.45, Physics (One Credit), Adopted 2020, as amended. The motion carried unanimously.*

**4. Proposed New 19 TAC Chapter 116, Texas Essential Knowledge and Skills for Physical Education, Subchapter A, Elementary, §§116.11-116.17, Subchapter B, Middle School, §§116.25-116.28, and Subchapter C, High School, §§116.61-116.64**
**(First Reading and Filing Authorization)**
(Board agenda page I-32)
[Official agenda item #4]

**MOTION:** *It was moved by Mr. Maynard and seconded by Dr. Robinson to recommend that the State Board of Education approve for first reading and filing authorization proposed new 19 TAC Chapter 116, Texas Essential Knowledge and Skills for Physical Education, Subchapter A, Elementary, §§116.11-116.17, Subchapter B, Middle School, §§116.25-116.28, and Subchapter C, High School, §§116.61-116.64.*

Ms. Ramos explained that this item proposes new physical education TEKS for kindergarten through high school and reflects the final recommendations from the physical education TEKS content advisors.

**MOTION AND VOTE:** *It was moved by Mr. Maynard, seconded by Ms. Hardy, and carried unanimously to recommend that the State Board of Education amend §116.13(b)(14) to read:*

"Social and emotional health—perseverance. The physically literate student perseveres while addressing challenges. The student is expected to explain how, with practice, ~~recognize that~~ challenges in physical activities can turn ~~lead~~ to successes ~~success with practice~~."

**MOTION AND VOTE:** *It was moved by Mr. Maynard, seconded by Ms. Hardy, and carried unanimously to recommend that the State Board of Education amend §116.14(b)(12)(B) to read:*

"explain and demonstrate respect for differences and similarities in abilities of self and other;"

**MOTION AND VOTE:** *It was moved by Mr. Maynard, seconded by Ms. Hardy, and carried unanimously to recommend that the State Board of Education amend §116.16(b)(13)(A) to read:*

"discuss ways to resolve conflict in socially acceptable ways and respond to winning and losing with dignity and understanding;"

**MOTION AND VOTE:** *It was moved by Mr. Maynard, seconded by Ms. Hardy, and carried unanimously to recommend that the State Board of Education amend §116.16(b)(14) to read:*

"Social and emotional health—perseverance. The physically literate student perseveres while addressing challenges. The student is expected to identify ways to accept individual challenges and use self-management skills to persevere in a positive manner when learning a variety of new skills."

**MOTION AND VOTE:** *It was moved by Mr. Maynard, seconded by Ms. Hardy, and carried unanimously to recommend that the State Board of Education amend §116.17(b)(11)(A) to read:*

"describe and select ~~determine~~ proper attire and safety equipment that promote safe participation and prevent injury in dynamic activities and games; and"

**MOTION AND VOTE:** *It was moved by Mr. Maynard, seconded by Ms. Hardy, and carried unanimously to recommend that the State Board of Education amend §116.17(b)(13)(A) to read:*

"explain the importance of and demonstrate how to resolve conflict in socially acceptable ways and respond to winning and losing with dignity and understanding;"

**MOTION AND VOTE:** *It was moved by Mr. Maynard, seconded by Ms. Hardy, and carried unanimously to recommend that the State Board of Education amend §116.17(b)(14) to read:*

"Social and emotional health—perseverance. The physically literate student perseveres while addressing challenges. The student is expected to discuss the importance of accepting ~~accept~~ individual challenges and use self- management skills to persevere in a positive manner during dynamic activities and lead-up games."

**MOTION AND VOTE:** *It was moved by Mr. Maynard, seconded by Ms. Hardy, and carried unanimously to recommend that the State Board of Education amend §116.26(b)(14) to read:*

"Social and emotional health—perseverance. The physically literate student perseveres while addressing challenges. The student is expected to discuss the importance of accepting ~~and accept~~ individual challenges and demonstrate self-management skills to persevere in a positive manner during game situations and sports."

**MOTION AND VOTE:** *It was moved by Mr. Maynard, seconded by Ms. Hardy, and carried unanimously to recommend that the State Board of Education amend §116.27(b)(2)(B) to read:*

"demonstrate proper body positioning, proficiency, and footwork and perform offensive and defensive skills during dynamic activities, game situations, and sports."

**MOTION AND VOTE:** *It was moved by Mr. Maynard, seconded by Ms. Hardy, and carried unanimously to recommend that the State Board of Education amend §116.28(b)(2)(B) to read:*

"demonstrate ~~perform~~ proper body positioning, proficiency, and footwork and perform offensive and defensive skills during dynamic activities, game situations, and sports."

**MOTION AND VOTE:** *It was moved by Mr. Maynard, seconded by Ms. Hardy, and carried unanimously to recommend that the State Board of Education amend §116.62(c)(4)(A) to read:*

"describe and analyze the relationship between physical activity and social and emotional health ~~concepts~~;"

**MOTION AND VOTE:** *It was moved by Mr. Maynard, seconded by Ms. Hardy, and carried unanimously to recommend that the State Board of Education amend §116.62(c)(4)(E) to read:*

"evaluate the impact of the use of technology on ~~for the benefit of and detriment to~~ social and emotional health."

**MOTION AND VOTE:** *It was moved by Mr. Maynard, seconded by Ms. Hardy, and carried unanimously to recommend that the State Board of Education amend §116.62(c)(5)(B) to read:*

"identify myths associated with physical activity and nutritional practices ~~as a consumer~~;"

**MOTION AND VOTE:** *It was moved by Mr. Maynard, seconded by Ms. Hardy, and carried unanimously to recommend that the State Board of Education amend §116.63(c)(4)(D) to read:*

"evaluate the impact of the use of technology on ~~for the benefit of and detriment to~~ social and emotional health;"

**MOTION AND VOTE:** *It was moved by Mr. Maynard, seconded by Ms. Hardy, and carried unanimously to recommend that the State Board of Education amend §116.63(c)(4)(C) to strike:*

"~~describe the benefits outdoor pursuits provide for social and emotional health;~~"

**VOTE:** *A vote was taken on the original motion to recommend that the State Board of Education approve for first reading and filing authorization proposed new 19 TAC Chapter 116, Texas Essential Knowledge and Skills for Physical Education, Subchapter A, Elementary, §§116.11-116.17, Subchapter B, Middle School, §§116.25-116.28, and Subchapter C, High School, §§116.61-116.64, as amended. The motion carried unanimously.*

*(Mr. Cortez was absent for the vote.)*

**5. Proposed New 19 TAC Chapter 115, Texas Essential Knowledge and Skills for Health Education, Subchapter A, Elementary, §§115.11-115.17, Subchapter B, Middle School, §§115.25-115.28, and Subchapter C, High School, §§115.37-115.39**
**(First Reading and Filing Authorization)**
(Board agenda page I-83)
[Official agenda item #5]

Ms. Ramos explained that this item proposes new TEKS for Health Education.

**MOTION:** *It was moved by Mr. Rowley and seconded by Ms. Hardy to recommend that the State Board of Education approve for first reading and filing authorization proposed revisions to19 TAC Chapter 115, Texas Essential Knowledge and Skills for Health Education, Subchapter A, Elementary, §§115.11-115.17, Subchapter B, Middle School, §§115.25-115.28, and Subchapter C, High School, §§115.37-115.39.*

**MOTION:** *It was moved by Mrs. Little and seconded by Ms. Hardy to recommend that the State Board of Education amend (a)(2) in §115.12 - §115.17 to add the following sentence at the end of the paragraph:*

"Health class educators are encouraged to partner with school counselors to schedule time for them to deliver classroom guidance lessons to help teach these essential competencies."

**MOTION AND VOTE:** *It was moved by Mr. Rowley, seconded by Mr. Maynard, and carried to insert "where available" after "counselors."*

**VOTE:** *A vote was taken on the original motion to recommend that the State Board of Education amend (a)(2) in §115.12 - §115.17 as amended. The motion carried.*

**MOTION AND VOTE:** *It was moved by Mrs. Little, seconded by Mr. Mercer, and carried to recommend that the State Board of Education change references to coping throughout the Kindergarten-Grade 12 health education TEKS to self-management or management strategies as appropriate.*

**MOTION AND VOTE:** *It was moved by Mrs. Little, seconded by Mr. Mercer, and carried to recommend that the State Board of Education amend §115.12(b)(2)(B) to read:*

"identify personal hygiene and health habits that help individuals stay healthy such as ~~personal hygiene, oral hygiene, and getting enough sleep~~ hand washing and brushing teeth;"

**MOTION AND VOTE:** *It was moved by Mrs. Little, seconded by Ms. Hardy, and carried to recommend that the State Board of Education amend §115.12(b)(3)(E) to read:*

"demonstrate respect and communicate appropriately with individuals ~~recognize and describe individual differences and communicate appropriately and respectfully with others~~; and"

**MOTION AND VOTE:** *It was moved by Mrs. Little, seconded by Ms. Hardy, and carried to recommend that the State Board of Education amend §115.12(b)(4)(A) to read:*

"describe positive social skills and personal qualities such as truth, kindness, reliability, and respectfulness; and"

**MOTION AND VOTE:** *It was moved by Mrs. Little, seconded by Ms. Hardy, and carried to recommend that the State Board of Education strike §115.12(b)(5)(B).*

**MOTION AND VOTE:** *It was moved by Mrs. Little, seconded by Ms. Hardy, and carried to recommend that the State Board of Education strike §115.12(b)(7).*

**MOTION AND VOTE:** *It was moved by Mrs. Little, seconded by Ms. Hardy, and unanimously carried to recommend that the State Board of Education amend §115.12(b)(8)(A) by replacing the word "recall" with the word "describe."*

**MOTION:** *It was moved by Mrs. Little and seconded by Ms. Hardy to recommend that the State Board of Education add new §115.12(b)(10)(A) to read:*

"identify characteristics of a trusted adult;"

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich, seconded by Ms. Hardy, and carried to insert "roles and" after "identify."*

**VOTE:** *A vote was taken on the original motion to recommend that the State Board of Education add new §115.12(b)(10)(A). The motion carried.*

**MOTION AND VOTE:** *It was moved by Mrs. Little, seconded by Mrs. Cargill, and carried to recommend that the State Board of Education amend §115.12(b)(10)(A) to read:*

"identify and role play refusal skills such as saying "no," to protect personal space and to avoid ~~unsafe behavior situations such as saying no in~~ unsafe situations and practice telling a parent or trusted adult if threatened; and"

**MOTION AND VOTE:** *It was moved by Ms. Hardy, seconded by Mrs. Melton-Malone, and carried to recommend that the State Board of Education amend §115.12(b)(15) to read:*

"Alcohol, tobacco, and other drugs--risk and protective factors. The student understands how various factors can influence decisions regarding substance use and the resources available for help. The student is expected to role play refusal skills and ~~identify~~ how to get help from a parent or trusted adult in unsafe situations involving the use or misuse of alcohol, tobacco, and other drugs ~~regarding substance use~~."

**MOTION AND VOTE:** *It was moved by Dr. Ellis and carried to recommend that the State Board of Education add new (a)(5) to the introductions for §§115.12-115.17, §115.26-§115.27, and §115.38-§115.39 to read:*

"Students should first seek guidance in the area of health from a parent or legal guardian."

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich and carried to recommend that the State Board of Education strike §115.12(b)(16).*

**MOTION AND VOTE:** *It was moved by Mrs. Little, seconded by Ms. Hardy, and carried to recommend that the State Board of Education add new §115.13(b)(3)(B) to read:*

"discuss and explain how emotions can interrupt our thinking and self-management process;"
**MOTION AND VOTE:** *It was moved by Mrs. Little, seconded by Ms. Hardy, and carried to recommend that the State Board of Education amend §115.13(b)(3)(G) by replacing the word "problems" with the word "conflicts."*

**MOTION AND VOTE:** *It was moved by Mrs. Little, seconded by Ms. Hardy, and carried to recommend that the State Board of Education amend §115.12(b)(3)(F) by replacing the word "problems" with the word "conflicts."*

**MOTION AND VOTE:** *It was moved by Mrs. Little, seconded by Mrs. Cargill, and carried to recommend that the State Board of Education amend §115.13(b)(4)(A) to read:*

"discuss ways to be kind to self and how to identify areas for growth"

**MOTION AND VOTE:** *It was moved by Mrs. Little, seconded by Ms. Hardy, and carried to recommend that the State Board of Education amend §115.13(b)(5)(C) to read:*

"discuss the signs and symptoms associated with negative stress such as loss or grief."

**MOTION AND VOTE:** *It was moved by Mrs. Little, seconded by Mrs. Cargill, and carried to recommend that the State Board of Education amend §115.13(b)(6)(A) by inserting "proteins," after "fruits."*

**MOTION AND VOTE:** *It was moved by Mrs. Little, seconded by Ms. Hardy, and carried to recommend that the State Board of Education amend §115.13(b)(6)(C) to read:*

"identify the food groups and classify examples of foods into ~~in~~ each group; and."

**MOTION:** *It was moved by Mrs. Little and seconded by Ms. Hardy to recommend that the State Board of Education amend §115.13(b)(8)(A) to read:*

"identify common food allergies ~~describe basic facts of food allergy safety such as not sharing food and explain the importance of respecting others who have allergies~~; and"

**MOTION AND VOTE:** *It was moved by Ms. Perez-Diaz and carried to add "and explain the importance of respecting others who have allergies" after the word "allergies."*

**VOTE:** *A vote was taken on the original motion to recommend that the State Board of Education amend §115.13(b)(8)(A) to read:*

"identify common food allergies and explain the importance of respecting others who have allergies; and"

*The motion carried without objection.*

**MOTION AND VOTE:** *It was moved by Mrs. Little, seconded by Mrs. Cargill, and carried to recommend that the State Board of Education amend §115.13(b)(10)(A) to read:*

"practice refusal skills to protect personal space and avoid unsafe situations; and"

**MOTION AND VOTE:** *It was moved by Mrs. Little, seconded by Ms. Hardy, and carried to recommend that the State Board of Education strike §115.13(b)(15).*

**MOTION AND VOTE:** *It was moved by Mrs. Little, seconded by Ms. Hardy, and carried to recommend that the State Board of Education amend §115.13(b)(17) by replacing the words "other drugs" with the words "drug abuse."*

**MOTION AND VOTE:** *It was moved by Mrs. Melton-Malone, seconded by Ms. Hardy, and carried to recommend that the State Board of Education amend §§115.14(b)(2)(E), 115.15(b)(2)(F), and 115.16(b)(2)(E) to strike "heart disease, stroke."*

**MOTION AND VOTE:** *It was moved by Mrs. Melton-Malone, seconded by Mrs. Cargill, and carried to recommend that the State Board of Education add new §115.14(b)(3)(C) to read:*

"discuss and explain how thoughts and emotions are related;"

**MOTION AND VOTE:** *It was moved by Mrs. Melton-Malone, seconded by Mrs. Cargill, and carried to recommend that the State Board of Education amend §115.14(b)(3)(C) by replacing the words "influence of peer pressure" with the words "effect of peer influence."*

**MOTION AND VOTE:** *It was moved by Mrs. Melton-Malone, seconded by Mrs. Cargill, and carried to recommend that the State Board of Education add new §115.14(b)(4)(B) to read:*

"define personal growth and identify areas for one's personal growth;"

**MOTION AND VOTE:** *It was moved by Mrs. Melton-Malone, seconded by Mrs. Bahorich, and carried to recommend that the State Board of Education amend §115.14(b)(4)(B) to read:*

"list the steps and describe the importance of ~~task completion and~~ goal setting and task completion."

**MOTION AND VOTE:** *It was moved by Mrs. Melton-Malone and carried to recommend that the State Board of Education amend §115.14(b)(8)(A) to read:*

"identify signs and symptoms of ~~common food allergies~~; and"

**MOTION AND VOTE:** *It was moved by Mrs. Melton-Malone, seconded by Ms. Hardy, and carried to recommend that the State Board of Education amend §115.14(b)(10)(A) by inserting the words "to protect personal space and avoid unsafe situations" after the word "skills."*

**MOTION AND VOTE:** *It was moved by Mrs. Melton-Malone, seconded by Ms. Hardy, and carried to recommend that the State Board of Education amend §115.14(b)(10)(B) by inserting the words "or when the student is made to feel unsafe" after the word "respected."*

**MOTION AND VOTE:** *It was moved by Mrs. Melton-Malone, seconded by Ms. Hardy, and carried to recommend that the State Board of Education amend §115.14(b)(11)(B) by inserting the word "unsupervised" after the words "presence of."*

**MOTION AND VOTE:** *It was moved by Mrs. Melton-Malone, seconded by Ms. Hardy, and carried to recommend that the State Board of Education amend §115.14(b)(12)(A) by replacing the words "respond appropriately" with the words "take appropriate action."*

**MOTION AND VOTE:** *It was moved by Mrs. Melton-Malone, seconded by Ms. Hardy, and carried to recommend that the State Board of Education amend §115.14(b)(12)(B) by replacing the words "can be helpful" with the words "is critical."*

**MOTION AND VOTE:** *It was moved by Mrs. Melton-Malone, seconded by Ms. Hardy, and carried to recommend that the State Board of Education amend §115.14(b)(13)(A) to strike the words "including cyberbullying."*

**MOTION AND VOTE:** *It was moved by Mrs. Melton-Malone and carried to recommend that the State Board of Education strike §115.14(b)(13)(B).*

**MOTION AND VOTE:** *It was moved by Mrs. Melton-Malone, seconded by Ms. Hardy, and carried to recommend that the State Board of Education strike §115.14(b)(15).*

**MOTION AND VOTE:** *It was moved by Mrs. Melton-Malone, seconded by Ms. Hardy, and carried to recommend that the State Board of Education amend §115.14(b)(18) by replacing the words "know how to respond using" with the word "demonstrate."*

**MOTION AND VOTE:** *It was moved by Mrs. Melton-Malone, seconded by Mrs. Cargill, and carried to recommend that the State Board of Education amend §115.15(b)(2)(C) to strike the words "~~risks and~~."*

**MOTION AND VOTE:** *It was moved by Mrs. Melton-Malone, seconded by Mrs. Cargill, and carried to recommend that the State Board of Education amend §115.15(b)(2)(F) to read:*

"identify that there are diseases ~~causes of disease other than germs~~ such as allergies, asthma, diabetes, and epilepsy that are not caused by germs; and"

**MOTION AND VOTE:** *It was moved by Mrs. Melton-Malone, seconded by Mrs. Cargill, and carried to recommend that the State Board of Education amend §115.15(b)(2)(G) by inserting the words "and when" after "explain how."*

**MOTION AND VOTE:** *It was moved by Mrs. Melton-Malone and carried to recommend that the State Board of Education amend §115.15(b)(3)(B) to read:*

"describe strategies for assessing thoughts and applying calming and self-management practices ~~strategies and how they affect thoughts and behaviors~~;"

**MOTION AND VOTE:** *It was moved by Mrs. Melton-Malone and carried to recommend that the State Board of Education add new §115.15(b)(3)(A) to read:*

"discuss and explain how the brain develops through maturation"

**MOTION AND VOTE:** *It was moved by Mrs. Melton-Malone, seconded by Mrs. Cargill, and carried to recommend that the State Board of Education amend §115.15(b)(4)(A) by inserting the words "and ways it is formed" after the word "self-esteem."*

**MOTION AND VOTE:** *It was moved by Mrs. Melton-Malone and carried to recommend that the State Board of Education amend §115.15(b)(5)(A) to read:*

"describe ~~discuss~~ methods for managing challenges related to ~~coping with~~ long-term ~~physical~~ health conditions ~~for self and others~~;"

**MOTION AND VOTE:** *It was moved by Mrs. Melton-Malone, seconded by Ms. Hardy, and carried to recommend that the State Board of Education amend §115.15(b)(6)(B) to read:*

"~~describe how to~~ plan a balanced meal that follows government nutrition guidelines;"

**MOTION AND VOTE:** *It was moved by Mrs. Melton-Malone, seconded by Ms. Hardy, and carried to recommend that the State Board of Education amend §115.15(b)(6)(C) to read:*

"examine nutrition labels to identify ~~discuss~~ the difference between foods containing natural sugars and foods with added sugars or sweeteners; and"

**MOTION AND VOTE:** *It was moved by Mrs. Melton-Malone, seconded by Ms. Hardy, and carried to recommend that the State Board of Education amend §115.15(b)(7) by inserting the word "credible" after the words "variety of."*

**MOTION AND VOTE:** *It was moved by Mrs. Melton-Malone, seconded by Ms. Hardy, and carried to recommend that the State Board of Education amend §115.15(b)(8)(A) to read:*

"identify the common food allergens listed on food packaging ~~signs and symptoms of common food allergies~~; and"

**MOTION AND VOTE:** *It was moved by Mrs. Melton-Malone, seconded by Ms. Hardy, and carried to recommend that the State Board of Education amend §115.15(b)(8)(B) to read:*

"describe how healthy and unhealthy behaviors affect body systems and demonstrate refusal skills in dealing with unhealthy eating situations."

**MOTION AND VOTE:** *It was moved by Mrs. Melton-Malone, seconded by Ms. Hardy, and carried to recommend that the State Board of Education amend §115.15(b)(10) to read:*

"Injury and violence prevention and safety--healthy relationships and conflict-resolution skills. The student differentiates between healthy and unhealthy relationships and demonstrates effective strategies to address conflict. The student is expected to identify refusal skills such as saying "no" ~~the right to say no~~ when privacy, ~~or~~ personal boundaries, or personal space are not respected."

**MOTION AND VOTE:** *It was moved by Mrs. Melton-Malone and carried to recommend that the State Board of Education amend §115.15(b)(17)(B) to read:*

"describe the difference between reporting and tattling and why it is important to report ~~when reporting~~ the use of alcohol, tobacco, and other drugs by friends or peers."

**MOTION AND VOTE:** *It was moved by Ms. Hardy, seconded by Ms. Perez, and carried to recommend that the State Board of Education amend §115.16(b)(2)(B) to read:*

"describe how health care decision making is influenced by external factors such as cost and access;"

**MOTION:** *It was moved by Ms. Hardy, seconded by Ms. Perez, to recommend that the State Board of Education amend §115.16(b)(3)(A) to read:*

"analyze how thoughts and ~~behaviors~~ emotions impact ~~emotional~~ behaviors;"

**MOTION AND VOTE:** *It was moved by Ms. Perez, seconded by Ms. Hardy, and carried to replace the word "impact" with the word "influence."*

**VOTE:** *A vote was taken on the original motion to recommend that the State Board of Education amend §115.16(b)(3)(A) as amended. The motion carried.*

**MOTION AND VOTE:** *It was moved by Ms. Hardy, seconded by Ms. Perez, and carried to recommend that the State Board of Education amend §115.16(b)(3)(B) to read:*

"describe the importance of identifying and reframing thoughts and applying calming and self-management strategies when dealing with strong emotions, including anger;"

**MOTION AND VOTE:** *It was moved by Ms. Hardy, seconded by Ms. Perez, and carried to recommend that the State Board of Education add new §115.16(b)(3)(C) to read:*

"discuss and explain how the brain develops during childhood and the role it plays in behavior"

**MOTION AND VOTE:** *It was moved by Mr. Maynard, seconded by Ms. Hardy, and carried to recommend that the State Board of Education amend §115.16(b)(3)(E) to read:*

"explain the importance of demonstrating consideration when communicating with individuals who use diverse methods to communicate such as different languages or adaptive methods;"

**MOTION:** *It was moved by Ms. Hardy and seconded by Ms. Perez to recommend that the State Board of Education amend §115.16(b)(5)(A) to read:*

"describe methods for managing concerns related to ~~coping with~~ long-term physical health conditions for self and others;"

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich and carried to strike the word "physical."*

**VOTE:** *A vote was taken on the original motion to recommend that the State Board of Education amend §115.16(b)(5)(A) as amended. The motion carried.*

**MOTION AND VOTE:** *It was moved by Ms. Hardy and carried to recommend that the State Board of Education amend §115.16(b)(5)(C) to read:*

"define sources of stress, including trauma and loss, and ~~the stages of~~ grief;"

**MOTION AND VOTE:** *It was moved by Ms. Hardy and carried to recommend that the State Board of Education amend §115.16(b)(5)(F) to replace the word "uncomfortable" with the word "overwhelming."*

**MOTION AND VOTE:** *It was moved by Ms. Hardy, seconded by Ms. Perez, and carried to recommend that the State Board of Education amend §115.16(b)(6)(D) to read:*

"identify the recommended guidelines for added-sugar consumption and explain how excess sugar consumption can impact health, including causing dental cavities and obesity; and"

**MOTION AND VOTE:** *It was moved by Ms. Hardy, seconded by Mrs. Cargill, and carried to recommend that the State Board of Education amend §115.16(b)(8)(A) by inserting the words "and set a goal" after the words "goal setting."*

**MOTION AND VOTE:** *It was moved by Ms. Hardy, seconded by Mrs. Cargill, and carried to recommend that the State Board of Education amend §115.16(b)(8)(B) by inserting the word "credible" after the words "variety of."*

**MOTION AND VOTE:** *It was moved by Ms. Hardy, seconded by Mrs. Cargill, and carried to recommend that the State Board of Education amend §115.16(b)(9)(C) to read:*

"differentiate between healthy and unhealthy eating habits and demonstrate refusal skills in dealing with unhealthy eating situations."

**MOTION AND VOTE:** *It was moved by Ms. Hardy, seconded by Mrs. Bahorich, and carried to recommend that the State Board of Education strike §115.16(b)(9)(A).*

**MOTION:** *It was moved by Ms. Hardy seconded by Mrs. Cargill, to recommend that the State Board of Education amend §115.16(b)(11) to read:*

"Injury and violence prevention and safety--healthy relationships and conflict-resolution skills. The student differentiates between healthy and unhealthy relationships and demonstrates effective strategies to address conflict. The student is expected to explain the importance of using refusal skills such as saying "no" when privacy or personal boundaries or space are not respected."

**MOTION AND VOTE:** *It was moved by Mrs. Cargill, seconded by Ms. Hardy, and carried to recommend that the State Board of Education amend §115.16(b)(14)(C) to read:*

"explain the importance of seeking guidance from parents and other trusted adults on critical personal safety issues ~~in order to make healthy decisions~~; and"

**MOTION:** *It was moved by Ms. Hardy, seconded by Mr. Mercer, and carried to recommend that the State Board of Education amend §115.16(b)(15)(B) to read:*

"identify the differences among ~~compare and contrast~~ prescription drugs, over-the-counter drugs, ~~alcohol, tobacco,~~ other drugs, and dangerous substances, including inhalants, vaping products, and household products."

**MOTION AND VOTE:** *It was moved by Ms. Hardy, seconded by Mr. Rowley, and carried to recommend that the State Board of Education amend §115.16(b)(18)(A) by replacing the word "pressures" with the word "influences."*

**MOTION AND VOTE:** *It was moved by Ms. Hardy, seconded by Mrs. Cargill, and carried to recommend that the State Board of Education amend §115.16(b)(19)(A) by inserting the words "using assertive communication" after "refusal skills."*

**MOTION AND VOTE:** *It was moved by Ms. Hardy, seconded by Mrs. Cargill, and carried to recommend that the State Board of Education amend §115.16(b)(19)(B) to read:*

"identify ways to avoid drugs and discuss healthy alternative activities for the use of drugs and other substances."

**MOTION AND VOTE:** *It was moved by Mrs. Cargill, seconded by Ms. Perez, and carried to recommend that the State Board of Education strike §115.16(b)(5)(E).*

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich, seconded by Mrs. Cargill, and carried to recommend that the State Board of Education amend §115.17(b)(3)(A) to read:*

"analyze how thoughts and emotions influence ~~behaviors impact emotions~~ behaviors;"

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich, seconded by Mrs. Cargill, and carried to recommend that the State Board of Education amend §115.17(b)(3)(D) to read:*

"analyze how to identify perspectives and respectful ways to communicate disagreement with friends, family, teachers, and others;"

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich and carried to recommend that the State Board of Education strike §115.17(b)(3)(F).*

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich, seconded by Mrs. Cargill, and carried to recommend that the State Board of Education add new §115.17(b)(4)(C) to read:*

"discuss choices and decision making as part of goal setting;"

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich, seconded by Ms. Perez, and carried to recommend that the State Board of Education amend §115.17(b)(4)(A) by inserting the words "and demonstrate" after the word "identify."*

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich, seconded by Dr. Robinson, and carried to recommend that the State Board of Education add new §115.17(b)(5)(B) to read:*

"discuss how brain development during childhood affects emotions and decision making."

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich, seconded by Mrs. Cargill, and carried to recommend that the State Board of Education amend §115.17(b)(6)(C) to read:*

"examine ways to reduce the impact of stress, trauma, loss, and grief ~~on mental health and wellness~~;"

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich, seconded by Mrs. Cargill, and carried to recommend that the State Board of Education amend §115.17(b)(6)(F) to replace the word "uncomfortable" with the word "overwhelming."*

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich, seconded by Dr. Robinson, and carried to recommend that the State Board of Education amend §115.17(b)(6)(E) to read:*

"discuss the warning signs associated with ~~and protective factors of~~ suicide identified by the Centers for Disease Control and Prevention (CDC) and the importance of telling a parent or trusted adult if one observes the warning signs in self or others; and."

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich, seconded by Ms. Hardy, and carried to recommend that the State Board of Education amend §115.17(b)(7)(B) by inserting the word "calories," after the words "nutritional content."*

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich, seconded by Ms. Hardy, and carried to recommend that the State Board of Education amend §115.17(b)(7)(C) to read:*

"identify the amount of sugar in common beverages and snacks and the recommended daily allowance for added sugar; and"

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich, seconded by Mr. Mercer, and carried to recommend that the State Board of Education amend §115.17(b)(9)(A) by inserting the words "and set a goal" after the words "goal setting."*

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich and carried to recommend that the State Board of Education amend §115.17(b)(14)(D) to read:*

"identify ~~analyze~~ ways to ways to advocate for self and others to prevent ~~show disapproval of~~ bullying and ~~or~~ cyberbullying behavior; and"

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich, seconded by Ms. Perez, and carried to recommend that the State Board of Education amend §115.17(b)(18)(A) by replacing the word "pressure" with the word "influence."*

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich and carried to recommend that the State Board of Education amend §115.17(b)(19)(A) by replacing the word "pressure" with the word "influence."*

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich, seconded by Ms. Hardy, and carried to recommend that the State Board of Education amend §115.17(b)(19)(B) to read:*

"identify a variety of scenarios and the different types of refusal skills that can be used to avoid the use of alcohol, tobacco, and other drugs; and"

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich, seconded by Ms. Hardy, and carried to recommend that the State Board of Education amend §115.17(b)(19)(C) to read:*

"identify and describe healthy alternative activities to the use of drugs and other substances ~~alternatives to drug and substance use~~."

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich and carried to recommend that the State Board of Education change references to the phrase "dating or romantic relationships" to "dating/romantic relationships" throughout §§115.17, 115.26, 115.27, and 115.38.*

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich, seconded by Ms. Hardy, and carried to recommend that the State Board of Education amend §115.17(b)(21)(C) to read:*

"identify refusal skills such as saying "no" ~~the right to say no~~ to any unwanted touch that violates ~~can be used to promote~~ personal boundaries in relationships;"

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich and carried to recommend that the State Board of Education amend §115.17(b)(21)(E) to read:*

"discuss and explain the importance of making decisions regarding setting personal boundaries and respecting the boundaries of others related to physical intimacy such as holding hands, hugging, and kissing."

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich and carried to recommend that the State Board of Education strike §115.17(b)(21)(D).*

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich, seconded by Ms. Hardy, and carried to recommend that the State Board of Education amend §115.17(b)(22)(A) to read:*

"explain the physical, social, and emotional changes that occur in males and females~~, including physical, social, and emotional changes, that occur~~ during puberty and adolescent development;"

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich, seconded by Ms. Hardy, and carried to recommend that the State Board of Education amend §115.17(b)(22)(C) by inserting the word "growth" after the words "body hair."*

**MOTION AND VOTE:** *It was moved by Ms. Pérez, seconded by Mr. Maynard, and carried to reconsider the vote on §115.17(b)(6)(E).*

**MOTION AND VOTE:** *It was moved by Mr. Maynard, seconded by Mrs. Cargill, and carried to recommend that the State Board of Education amend §115.17(b)(6)(E) to read:*

"describe situations that call for professional emotional, mental, and behavioral health services ~~discuss the warning signs and associated with suicide identified by the Centers for Disease Control and Prevention (CDC) and the importance of telling a parent or trusted adult if one observes the warning signs in self or others~~; and."

**MOTION AND VOTE:** *It was moved by Ms. Perez, seconded by Mr. Mercer, and carried to recommend that the State Board of Education amend §115.26(b)(5)(B) to read:*

"identify and discuss how adolescent brain development influences ~~can impact~~ emotions, decision making, and logic; and"

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich and seconded by Ms. Hardy, to recommend that the State Board of Education strike §115.26(b)(1). The motion failed.*

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich, seconded by Ms. Hardy, and carried to recommend that the State Board of Education amend §115.26(b)(2)(F) to read:*

"describe actions that should be taken when illness occurs, including asthma, ~~heart disease, stroke,~~ diabetes, and epilepsy; and"

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich, seconded by Ms. Hardy, and carried to recommend that the State Board of Education amend §115.26(b)(3)(A) to read:*

"demonstrate ~~describe~~ healthy methods for communicating emotions in a variety of scenarios;"

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich, seconded by Ms. Hardy, and carried to recommend that the State Board of Education amend §115.26(b)(3)(B) by inserting the words "and demonstrate" after the word "assess."*

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich, seconded by Ms. Hardy, and carried to recommend that the State Board of Education amend §115.26(b)(3)(C) by replacing the word "pressure" with the word "influence."*

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich, seconded by Ms. Hardy, and carried to recommend that the State Board of Education amend §115.26(b)(3)(D) to read:*

"describe methods for communicating important issues with and understanding perspectives of parents and peers;"

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich, seconded by Mrs. Cargill, and carried to recommend that the State Board of Education amend §115.26(b)(3)(E) to read:*

"discuss and demonstrate how to listen to and respect others' feelings and perspectives in a variety of scenarios ~~hypothesize others' feelings and perspectives in a variety of situations and justify the hypothesis~~; and"

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich and carried to recommend that the State Board of Education strike §115.26(b)(6)(A).*

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich, seconded by Ms. Hardy, and carried to recommend that the State Board of Education amend §115.26(b)(6)(D) to read:*

"identify how to respond positively ~~put oneself in positive situations~~ to develop resiliency;"

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich, seconded by Mrs. Cargill, and carried to recommend that the State Board of Education amend §115.26(b)(6)(H) by replacing the word "uncomfortable" with the word "overwhelming."*

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich, seconded by Mr. Mercer, and carried to recommend that the State Board of Education amend §115.26(b)(7)(B) by inserting the words "and calories" after the word "content."*

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich and carried to recommend that the State Board of Education amend §115.26(b)(7)(D) to read:*

"explain the importance of a realistic personal dietary plan; and"

**MOTION:** *It was moved by Mrs. Bahorich and seconded by Ms. Hardy to recommend that the State Board of Education amend §115.26(b)(9)(A) to read:*

"develop short- and long-term goals to achieve appropriate levels of physical activity, improve personal physical fitness levels and make a variety of healthy personal food choices; and"

**MOTION AND VOTE:** *It was moved by Mrs. Cargill, seconded by Mrs. Bahorich, and carried to amend §115.26(b)(9)(A) to read:*

"make a variety of healthy personal food choices and develop short- and long-term goals to achieve appropriate levels of physical activity and improve personal physical fitness levels ~~and make a variety of healthy personal food choices~~; and"

**VOTE:** *A vote was taken on the original motion to recommend that the State Board of Education amend §115.26(b)(9)(A) as amended. The motion carried.*

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich, seconded by Mr. Mercer, and carried to recommend that the State Board of Education amend §115.26(b)(10)(A) to read:*

"analyze the impact of moderate physical activity and dietary choices on the prevention of obesity, heart disease, and diabetes;"

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich, seconded by Mrs. Cargill, and carried to recommend that the State Board of Education amend §115.26(b)(10)(D) to read:*

"discuss the nutritional differences in preparing and serving fresh foods versus serving ready-prepared, processed foods ~~explain safety concerns related to physical activity, food, and beverages~~."

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich, seconded by Ms. Hardy, and carried to recommend that the State Board of Education amend §115.26(b)(12)(A) by striking the word "drugs."*

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich, seconded by Ms. Hardy, and carried to recommend that the State Board of Education amend §115.26(b)(12)(D) by striking the words "drugs and."*

**MOTION:** *It was moved by Mrs. Bahorich and seconded by Ms. Hardy to recommend that the State Board of Education amend §115.26(b)(14)(C) to read:*

"assess healthy and appropriate ways of responding to and discouraging bullying or cyberbullying, including behavior that takes place at school;"

**MOTION AND VOTE:** *It was moved by Mrs. Cargill, seconded by Mrs. Bahorich, and carried to replace the words "bullying or cyberbullying" with "bullying and cyberbullying."*

**VOTE:** *A vote was taken on the original motion to recommend that the State Board of Education amend §115.26(b)(14)(C) as amended. The motion carried.*

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich, seconded by Ms. Hardy, and carried to recommend that the State Board of Education amend §115.26(b)(16)(B) to read:*

"discuss the legal consequences related to the use and misuse of drugs, including ~~the misuse of~~ prescription drugs; and"

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich, seconded by Ms. Hardy, and carried to recommend that the State Board of Education amend §115.26(b)(18)(A) to read:*

"explain the impact ~~influence~~ of peer influence ~~pressure~~ on decision making regarding the use of alcohol, tobacco, and other drugs;"

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich, seconded by Ms. Hardy, and carried to recommend that the State Board of Education amend §115.26(b)(18) to read:*

"(C) identify physical and social influences on alcohol, tobacco, and other drug use behaviors;

"~~(D) identify how physical and social environmental influences can affect an individual's substance misuse and substance use disorders;~~"

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich, seconded by Mrs. Cargill, and carried to recommend that the State Board of Education amend §115.26(b)(19)(B) to read:*

"demonstrate ~~discuss how to use~~ refusal skills in various scenarios ~~situations~~ where alcohol, tobacco, and other drugs may be present;"

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich, seconded by Mr. Mercer, and carried to recommend that the State Board of Education amend §115.26(b)(21)(E) to read:*

"explain how a healthy sense of self and decision making regarding ~~can lead to~~ safe boundaries and limits promotes ~~and promotes~~ healthy dating/romantic relationships;"

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich and carried to recommend that the State Board of Education amend §115.26(b)(21)(G) to read:*

"explain the importance of clearly communicating, ~~and~~ respecting personal boundaries, and using refusal skills, ~~(permission or refusal) as~~ related to physical intimacy such as holding hands, hugging, and kissing; and"

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich, seconded by Mr. Mercer, and carried to recommend that the State Board of Education strike §115.26(b)(21)(H).*

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich, seconded by Ms. Hardy, and carried to recommend that the State Board of Education amend §115.26(b)(22)(A) to read:*

"describe changes in male and female anatomy and physiology during puberty and how rates and patterns of development can vary between individuals;"

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich and carried to recommend that the State Board of Education amend §115.26(b)(22)(B) to read:*

"describe the purpose, characteristics, and variations of the menstrual cycle;"

**MOTION:** *It was moved by Mrs. Bahorich and seconded by Ms. Hardy to recommend that the State Board of Education amend §115.26(b)(23)(B) to read:*

"create and discuss personal ~~identify~~ life goals that one wishes to achieve prior to becoming a parent including consideration of the economic benefits of graduating from high school, having a full-time job, and beginning a family while married and after age 21;"

**MOTION AND VOTE:** *It was moved by Mr. Maynard, seconded by Ms. Hardy, and carried to insert the words "and discuss the financial impact" after "achieve."*

**VOTE:** *A vote was taken on the original motion to recommend that the State Board of Education amend §115.26(b)(23)(B) as amended. The motion failed.*

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich, seconded by Mr. Mercer, and carried to recommend that the State Board of Education amend §115.26(b)(23)(C) to read:*

"define sexually transmitted infections (STIs) and sexually transmitted diseases (STDs) as infections or diseases that are spread through sex or sexual activity ~~and may cause sexually transmitted diseases (STDs)~~;"

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich and carried to recommend that the State Board of Education replace references to "potential risks" with the word "risks" throughout §§115.26, 115.27, and 115.38.*

**MOTION:** *It was moved by Mrs. Bahorich and seconded by Ms. Hardy to recommend that the State Board of Education amend §115.26(b)(23)(E) to read:*

"define abstinence as refraining from all forms of sexual activity and genital contact ~~it relates to sexual activity~~ and discuss the importance of seeking support from parents, trusted adults, and peers to be sexually abstinent;"

**MOTION AND VOTE:** *It was moved by Mr. Allen, seconded by Ms. Hardy, and carried to strike the word "sexually."*

**MOTION AND VOTE:** *It was moved by Ms. Perez and seconded by Mr. Mercer to strike the words "genital contact." The motion failed.*

**MOTION AND VOTE:** *It was moved by Mr. Rowley, seconded by Dr. Robinson, and carried to insert the words "between individuals" after "contact."*

**VOTE:** *A vote was taken on the original motion to recommend that the State Board of Education amend §115.26(b)(23)(E) as amended. The motion passed.*

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich, seconded by Ms. Hardy, and carried to recommend that the State Board of Education amend §115.26(b)(23)(G) to read:*

"identify why abstinence from sexual activity is the only ~~contraceptive~~ method that is 100% effective in preventing pregnancy; STIs, including human immunodeficiency virus (HIV) and acquired immunodeficiency syndrome (AIDS); and the emotional risks associated with adolescent sexual activity;"

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich, seconded by Mrs. Cargill, and carried to recommend that the State Board of Education amend §115.26(b)(23)(H) to read:*

"list the ~~potential~~ benefits of abstinence from sexual activity such as increased self-esteem, self-confidence, ~~and~~ student academic achievement, and alignment with personal, family and moral or religious beliefs and values; and"

**MOTION AND VOTE:** *It was moved by Mrs. Cargill, seconded by Mr. Rowley, and carried to recommend that the State Board of Education amend §115.26(b)(6)(G) to read:*
"discuss the warning signs associated with ~~and protective factors of~~ suicide as identified by the Centers for Disease Control and Prevention (CDC) and the importance of telling a parent or trusted adult if one observes the warning signs in self or others;"

## DISCUSSION ITEMS

### 6. Update on the Review of *Proclamation 2021* Instructional Materials
(Board agenda page I-87)

Melissa Lautenschlager, director, instructional materials and implementation, provided a brief update on the *Proclamation 2021* instructional material review of prekindergarten materials that was held in June 2020. Ms. Lautenschlager explained that out of the 27 products reviewed, 27 are eligible for adoption. Ms. Lautenschlager also explained that the board will have the opportunity to adopt these materials at the November 2020 meeting.

### 7. Update on the Texas Essential Knowledge and Skills Coverage in Materials Submitted for Evaluation for the Texas Resource Review
(Board agenda page I-90)

Mrs. Lautenschlager presented an update on the Texas Essential Knowledge and Skills review of instructional materials that were evaluated for the Texas Resource Review (TRR). Mrs. Lautenschlager explained that products in English language arts and reading, foundational literacy, grades K–2, math, grades K–8, and prekindergarten were reviewed for standards alignment, and the results of the TRR will be available and published in November.

**MOTION AND VOTE:** *It was moved by Dr. Robinson and seconded by Mr. Mercer to adjourn. The motion carried.*

Dr. Ellis adjourned the meeting at 11:02 p.m.

**Text of Proposed New 19 TAC**

# Chapter 112. Texas Essential Knowledge and Skills for Science

## Subchapter C. High School

**§112.41. Implementation of Texas Essential Knowledge and Skills for Science, High School, Adopted 2020.**

(a) The provisions of §§112.42-112.45 of this subchapter shall be implemented by school districts.

(b) No later than July 31, 2022, the commissioner of education shall determine whether instructional materials funding has been made available to Texas public schools for materials that cover the essential knowledge and skills for science as adopted in §§112.42-112.45 of this subchapter.

(c) If the commissioner makes the determination that instructional materials funding has been made available under subsection (b) of this section, §§112.42-112.45 of this subchapter shall be implemented beginning with the 2023-2024 school year and apply to the 2023-2024 and subsequent school years.

(d) If the commissioner does not make the determination that instructional materials funding has been made available under subsection (b) of this section, the commissioner shall determine no later than July 31 of each subsequent school year whether instructional materials funding has been made available. If the commissioner determines that instructional materials funding has been made available, the commissioner shall notify the State Board of Education and school districts that §§112.42-112.45 of this subchapter shall be implemented for the following school year.

(e) Sections 112.34, 112.35, 112.38, and 112.39 of this subchapter shall be superseded by the implementation of §§112.42-112.45 of this subchapter.

**§112.42. Biology (One Credit), Adopted 2020.**

(a) General requirements. Students shall be awarded one credit for successful completion of this course. This course is recommended for students in Grades 9-11.

(b) Introduction.

(1) Biology. **[~~By the end of Grade 12, students are expected to gain sufficient knowledge of the scientific and engineering practices across the disciplines of science to make informed decisions using critical thinking and scientific problem solving.~~]** Students in Biology focus on patterns, processes, and relationships of living organisms through four main concepts: biological structures, functions, and processes; mechanisms of genetics; biological evolution; and interdependence within environmental systems. **By the end of Grade 12, students are expected to gain sufficient knowledge of the scientific and engineering practices across the disciplines of science to make informed decisions using critical thinking and scientific problem solving.**

(2) Nature of science. **Science, as defined by the National Academy of Sciences, is the "use of evidence to construct testable explanations and predictions of natural phenomena, as well as the knowledge generated through this process." [~~According to the National Science Teaching Association, the "nature of science is a critical component of scientific literacy that enhances students' understandings of science concepts and enables them to make informed decisions about scientifically based personal and societal issues."~~]** This vast body of changing and increasing knowledge is described by physical, mathematical, and conceptual models. Students should know that some questions are outside the realm of science because they deal with phenomena that are not currently scientifically testable.

(3) Scientific hypotheses and theories. Students are expected to know that:

(A) hypotheses are tentative and testable statements that must be capable of being supported or not supported by observational evidence. Hypotheses of durable explanatory power that have been tested over a wide variety of conditions are incorporated into theories; and

(B) scientific theories are based on natural and physical phenomena and are capable of being tested by multiple independent researchers. Unlike hypotheses, scientific theories are well established and highly reliable explanations, but they may be subject to change as new areas of science and new technologies are developed.

(4) Scientific inquiry. Scientific inquiry is the planned and deliberate investigation of the natural world using scientific and engineering practices. Scientific methods of investigation are descriptive, comparative, or experimental. The method chosen should be appropriate to the question being asked. Student learning for different types of investigations include descriptive investigations, which involve collecting data and recording observations without making comparisons; comparative investigations, which involve collecting data with variables that are manipulated to compare results; and experimental investigations, which involve processes similar to comparative investigations but in which a control is identified.

(A) Scientific practices. Students should be able to ask questions, plan and conduct investigations to answer questions, and explain phenomena using appropriate tools and models.

(B) Engineering practices. Students should be able to identify problems and design solutions using appropriate tools and models.

(5) Science and social ethics. Scientific decision making is a way of answering questions about the natural world **, involving its own set of ethical standards about how the process of science should be carried out.** **[~~Social justice applies the concept of social responsibility to determine if something is ethical.~~]** Students should be able to distinguish between scientific decision-making methods **(scientific methods [~~and engineering practices~~])** and **ethical** **[~~the use of ethics~~] and social decisions that involve science (the application of scientific information)** **[~~justice to make decisions that involve the application of scientific information and engineering design~~]** .

(6) Scientific cross-cutting concepts. **Science consists of recurring themes and making connections between overarching concepts. Recurring themes include** **[~~Science is a series of cross-cutting concepts such as~~]** systems, models, and patterns. All systems have basic properties that can be described in space, time, energy, and matter. Change and constancy occur in systems as patterns and can be observed, measured, and modeled. These patterns help to make predictions that can be scientifically tested, while models allow for boundary specification and **provide a tool for** **[~~serve as tools~~]** for understanding the ideas presented. Students should analyze a system in terms of its components and how these components relate to each other, to the whole, and to the external environment.

(7) Statements containing the word "including" reference content that must be mastered, while those containing the phrase "such as" are intended as possible illustrative examples.

(c) Knowledge and skills.

(1) Scientific and engineering practices. The student, for at least 40% of instructional time, asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to explain phenomena, or design solutions using appropriate tools and models. The student is expected to:

(A) ask questions and define problems based on observations or information from text, phenomena, models, or investigations;

(B) apply scientific practices to plan and conduct descriptive, comparative, and experimental investigations and use engineering practices to design solutions to problems;

(C) use appropriate safety equipment and practices during laboratory, classroom, and field investigations as outlined in Texas Education Agency-approved safety standards;

(D) use appropriate tools such as microscopes, slides, Petri dishes, laboratory glassware, metric rulers, digital balances, pipets, filter paper, micropipettes, gel electrophoresis and

polymerase chain reaction (PCR) apparatuses, microcentrifuges, water baths, incubators, thermometers, hot plates, data collection probes, test tube holders, lab notebooks or journals, hand lenses, and models, diagrams, or samples of biological specimens or structures;

(E) collect quantitative data using the International System of Units (SI) and qualitative data as evidence;

(F) organize quantitative and qualitative data using scatter plots, line graphs, bar graphs, charts, data tables, digital tools, diagrams, scientific drawings, and student-prepared models;

(G) develop and use models to represent phenomena, systems, processes, or solutions to engineering problems; and

(H) distinguish among scientific hypotheses, theories, and laws.

(2) Scientific and engineering practices. The student analyzes and interprets data to derive meaning, identify features and patterns, and discover relationships or correlations to develop evidence-based arguments or evaluate designs. The student is expected to:

(A) identify advantages and limitations of models such as their size, scale, properties, and materials;

(B) analyze data by identifying significant statistical features, patterns, sources of error, and limitations;

(C) use mathematical calculations to assess quantitative relationships in data; and

(D) evaluate experimental and engineering designs.

(3) Scientific and engineering practices. The student develops evidence-based explanations and communicates findings, conclusions, and proposed solutions. The student is expected to:

(A) develop explanations and propose solutions supported by data and models and consistent with scientific ideas, principles, and theories;

(B) communicate explanations and solutions individually and collaboratively in a variety of settings and formats; and

(C) engage respectfully in scientific argumentation using applied scientific explanations and empirical evidence.

(4) Scientific and engineering practices. The student knows the contributions of scientists and recognizes the importance of scientific research and innovation on society. The student is expected to:

(A) analyze, evaluate, and critique scientific explanations and solutions by using empirical evidence, logical reasoning, and experimental and observational testing, so as to encourage critical thinking by the student;

(B) relate the impact of past and current research on scientific thought and society, including research methodology, **cost-benefit analysis** **[~~ethics~~]** , and contributions of diverse scientists as related to the content; and

(C) research and explore connections between grade-level appropriate science concepts and science, technology, engineering, and mathematics (STEM) careers.

(5) Science concepts--biological structures, functions, and processes. The student knows that biological structures at multiple levels of organization perform specific functions and processes that affect life. The student is expected to:

(A) relate the functions of different types of biomolecules, including carbohydrates, lipids, proteins, and nucleic acids, to the structure and function of a cell;

(B) compare and contrast prokaryotic and eukaryotic cells, including their complexity, and compare and contrast scientific explanations for cellular complexity;

(C) investigate homeostasis through the cellular transport of molecules; and

(D) compare the structures of viruses to cells and explain how viruses spread and cause disease.

(6) Science concepts--biological structures, functions, and processes. The student knows how an organism grows and the importance of cell differentiation. The student is expected to:

(A) explain the importance of the cell cycle to the growth of organisms, including **stages of the cell cycle and** deoxyribonucleic acid (DNA) replication **[~~using~~]** models;

(B) explain the process of cell specialization through cell differentiation, including the role of environmental factors; and

(C) relate disruptions of the cell cycle **to how they lead** to the development of diseases such as cancer.

(7) Science concepts--mechanisms of genetics. The student knows the role of nucleic acids in gene expression. The student is expected to:

(A) identify components of DNA, explain how the nucleotide sequence specifies **some [~~the~~]** traits of an organism, and examine scientific explanations for the origin of DNA;

(B) describe the significance of gene expression and explain the process of protein synthesis using models of DNA and ribonucleic acid (RNA);

(C) identify and illustrate changes in DNA and evaluate the significance of these changes; and

(D) **describe the function of** [**~~investigate~~**] molecular technologies such as polymerase chain reaction (PCR), gel electrophoresis, and **genetic engineering [~~gene modification~~]** that are applicable in current research and engineering practices.

(8) Science concepts--mechanisms of genetics. The student knows **the role of nucleic acids and** the principles of inheritance and variation of traits **in Mendelian and non-Mendelian genetics** . The student is expected to:

(A) analyze the significance of chromosome reduction, independent assortment, and crossing-over during meiosis in increasing diversity in populations of organisms that reproduce sexually; and

(B) predict possible outcomes of various genetic combinations **using [~~, including~~]** monohybrid **and dihybrid** crosses, **including non-Mendelian traits of** incomplete dominance, codominance, sex-linked traits, and multiple alleles.

(9) Science concepts--biological evolution. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life that has multiple lines of evidence. The student is expected to:

(A) analyze and evaluate how evidence of common ancestry among groups is provided by the fossil record, biogeography, and homologies, including anatomical, molecular, and developmental; and

(B) examine **[~~gradualism and punctuated equilibrium as~~]** scientific explanations **for varying rates of change such as gradualism, [~~of~~]** abrupt appearance **,** and stasis in the fossil record.

(10) Science concepts--biological evolution. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life that has multiple mechanisms. The student is expected to:

(A) **analyze and evaluate [~~explain~~]** how natural selection produces change in populations and not in individuals;

(B) **[~~explain and~~]** analyze **and evaluate** how the elements of natural selection, including inherited variation, the potential of a population to produce more offspring than can survive, and a finite supply of environmental resources, result in differential reproductive success;

(C) analyze and evaluate **how [~~the relationship of~~]** natural selection **may lead** to **[~~adaptation,~~]** speciation **[~~, and divergent evolution~~]** ; and

(D) analyze **[~~the effect of~~]** evolutionary mechanisms other than natural selection, including genetic drift, gene flow, mutation, and genetic recombination, on the gene pool of a population.

(11) Science concepts--biological structures, functions, and processes. The student knows the significance of matter cycling, energy flow, and enzymes in living organisms. The student is expected to:

(A) explain how matter **is conserved** and energy **is transferred [~~are conserved~~]** during photosynthesis and cellular respiration using models, including chemical equations; and

(B) **identify and** investigate **[~~and explain~~]** the role of enzymes in facilitating cellular processes.

(12) Science concepts--biological structures, functions, and processes. The student knows that multicellular organisms are composed of multiple systems that interact to perform complex functions. The student is expected to:

(A) analyze the interactions that occur among systems that perform the functions of regulation, nutrient absorption, reproduction, and defense from injury or illness in animals; and

(B) explain how the functions of transport, reproduction, and response in plants are facilitated by their structures.

(13) Science concepts--interdependence within environmental systems. The student knows that interactions at various levels of organization occur within an ecosystem to maintain stability. The student is expected to:

(A) investigate and evaluate how ecological relationships, including predation, parasitism, commensalism, mutualism, and competition, influence ecosystem stability;

(B) analyze how ecosystem stability is affected by disruptions to the cycling of matter and flow of energy through trophic levels using models;

(C) explain the significance of the carbon and nitrogen cycles to ecosystem stability and analyze the consequences of disrupting these cycles; and

(D) explain how environmental change affects biodiversity and analyze how changes in biodiversity impact ecosystem stability.

*****

(a) General requirements. Students shall be awarded one credit for successful completion of this course. Prerequisites: one credit of high school science and Algebra I. Recommended prerequisite: completion of or concurrent enrollment in a second year of mathematics. This course is recommended for students in Grades 10-12.

(b) Introduction.

(1) Chemistry. **[~~By the end of Grade 12, students are expected to gain sufficient knowledge of the scientific and engineering practices across the disciplines of science to make informed~~**

**~~decisions using critical thinking and scientific problem solving.~~]** In Chemistry, students conduct laboratory and field investigations, use scientific practices during investigations, and make informed decisions using critical thinking and scientific problem solving. Students study a variety of topics that include characteristics of matter, use of the Periodic Table, development of atomic theory, chemical bonding, chemical stoichiometry, gas laws, solution chemistry, acid-base chemistry, thermochemistry, and nuclear chemistry. Students investigate how chemistry is an integral part of our daily lives. **By the end of Grade 12, students are expected to gain sufficient knowledge of the scientific and engineering practices across the disciplines of science to make informed decisions using critical thinking and scientific problem solving.**

(2) Nature of science. **Science, as defined by the National Academy of Sciences, is the "use of evidence to construct testable explanations and predictions of natural phenomena, as well as the knowledge generated through this process**." **[~~According to the National Science Teaching Association, the "nature of science is a critical component of scientific literacy that enhances students' understandings of science concepts and enables them to make informed decisions about scientifically based personal and societal issues."~~]** This vast body of changing and increasing knowledge is described by physical, mathematical, and conceptual models. Students should know that some questions are outside the realm of science because they deal with phenomena that are not currently scientifically testable.

(3) Scientific hypotheses and theories. Students are expected to know that:

(A) hypotheses are tentative and testable statements that must be capable of being supported or not supported by observational evidence. Hypotheses of durable explanatory power that have been tested over a wide variety of conditions are incorporated into theories; and

(B) scientific theories are based on natural and physical phenomena and are capable of being tested by multiple independent researchers. Unlike hypotheses, scientific theories are well established and highly reliable explanations, but they may be subject to change as new areas of science and new technologies are developed.

(4) Scientific inquiry. Scientific inquiry is the planned and deliberate investigation of the natural world using scientific and engineering practices. Scientific methods of investigation are descriptive, comparative, or experimental. The method chosen should be appropriate to the question being asked. Student learning for different types of investigations includes descriptive investigations, which involve collecting data and recording observations without making comparisons; comparative investigations, which involve collecting data with variables that are manipulated to compare results; and experimental investigations, which involve processes similar to comparative investigations but in which a control is identified.

(A) Scientific practices. Students should be able to ask questions, plan and conduct investigations to answer questions, and explain phenomena using appropriate tools and models.

(B) Engineering practices. Students should be able to identify problems and design solutions using appropriate tools and models.

(5) Science and social ethics. Scientific decision making is a way of answering questions about the natural world **, involving its own set of ethical standards about how the process of science should be carried out.** [**~~Social justice applies the concept of social responsibility to determine if something is ethical.~~**] Students should be able to distinguish between scientific decision-making methods (scientific **methods [~~and engineering practices~~]** ) and **ethical** [**~~the use of ethics~~**] **and social decisions that involve science (the application of scientific information) [~~justice to make decisions that involve the application of scientific information and engineering design~~]** .

(6) Scientific cross-cutting concepts. **Science consists of recurring themes and making connections between overarching concepts. Recurring themes include [~~Science is a series of cross-cutting concepts such as~~]** systems, models, and patterns. All systems have basic properties that can be

described in space, time, energy, and matter. Change and constancy occur in systems as patterns and can be observed, measured, and modeled. These patterns help to make predictions that can be scientifically tested, while models allow for boundary specification and **provide a tool for** **[~~serve as tools~~]** for understanding the ideas presented. Students should analyze a system in terms of its components and how these components relate to each other, to the whole, and to the external environment.

(7) Statements containing the word "including" reference content that must be mastered, while those containing the phrase "such as" are intended as possible illustrative examples.

(c) Knowledge and skills.

(1) Scientific and engineering practices. The student, for at least 40% of instructional time, asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to explain phenomena, or design solutions using appropriate tools and models. The student is expected to:

(A) ask questions and define problems based on observations or information from text, phenomena, models, or investigations;

(B) apply scientific practices to plan and conduct descriptive, comparative, and experimental investigations and use engineering practices to design solutions to problems;

(C) use appropriate safety equipment and practices during laboratory, classroom, and field investigations as outlined in Texas Education Agency-approved safety standards;

(D) use appropriate tools such as Safety Data Sheets (SDS), scientific or graphing calculators, computers and probes, electronic balances, an adequate supply of consumable chemicals, and sufficient scientific glassware such as beakers, Erlenmeyer flasks, pipettes, graduated cylinders, volumetric flasks, and burettes;

(E) collect quantitative data using the International System of Units (SI) and qualitative data as evidence;

(F) organize quantitative and qualitative data using oral or written lab reports, labeled drawings, particle diagrams, charts, tables, graphs, journals, summaries, or technology-based reports;

(G) develop and use models to represent phenomena, systems, processes, or solutions to engineering problems; and

(H) distinguish between scientific hypotheses, theories, and laws.

(2) Scientific and engineering practices. The student analyzes and interprets data to derive meaning, identify features and patterns, and discover relationships or correlations to develop evidence-based arguments or evaluate designs. The student is expected to:

(A) identify advantages and limitations of models such as their size, scale, properties, and materials;

(B) analyze data by identifying significant statistical features, patterns, sources of error, and limitations;

(C) use mathematical calculations to assess quantitative relationships in data; and

(D) evaluate experimental and engineering designs.

(3) Scientific and engineering practices. The student develops evidence-based explanations and communicates findings, conclusions, and proposed solutions. The student is expected to:

(A) develop explanations and propose solutions supported by data and models and consistent with scientific ideas, principles, and theories;

(B) communicate explanations and solutions individually and collaboratively in a variety of settings and formats; and

(C) engage respectfully in scientific argumentation using applied scientific explanations and empirical evidence.

(4) Scientific and engineering practices. The student knows the contributions of scientists and recognizes the importance of scientific research and innovation on society. The student is expected to:

(A) analyze, evaluate, and critique scientific explanations and solutions by using empirical evidence, logical reasoning, and experimental and observational testing, so as to encourage critical thinking by the student;

(B) relate the impact of past and current research on scientific thought and society, including research methodology, ethics, and contributions of diverse scientists as related to the content; and

(C) research and explore connections between grade-level appropriate science concepts and science, technology, engineering, and mathematics (STEM) careers.

(5) Science concepts. The student understands the development of the Periodic Table and applies its predictive power. The student is expected to:

(A) **explain [~~construct explanations to communicate~~]** the development of the Periodic Table over time using evidence such as chemical and physical properties;

(B) predict the properties of elements in chemical families, including alkali metals, alkaline earth metals, halogens, noble gases, and transition metals, based on **[~~the patterns of~~]** valence electrons **patterns** using the Periodic Table; and

(C) analyze and interpret elemental data, including atomic radius, atomic mass, electronegativity, ionization energy, and reactivity to **identify periodic [~~discover~~]** trends **[~~in the Periodic Table~~]** .

(6) Science concepts. The student understands the development of atomic theory and applies it to real-world phenomena. The student is expected to:

(A) construct models using Dalton's Postulates, Thomson's discovery of electron properties, Rutherford's nuclear atom, Bohr's nuclear atom, and Heisenberg's Uncertainty Principle to show the development of modern atomic theory over time;

(B) describe the structure of atoms and ions, including the masses, electrical charges, and locations of protons and neutrons in the nucleus and electrons in the electron cloud;

(C) investigate **the mathematical relationship among energy, frequency, and wavelength of light using [~~the quantized energy emitted by electron movement of various elements and relate the emissions to~~]** the electromagnetic spectrum **and relate it to the quantization of energy in the emission spectrum** ;

(D) calculate average atomic mass of an element using isotopic composition; and

(E) construct models to express the arrangement of electrons in atoms of representative elements using electron configurations and Lewis dot structures.

(7) Science concepts. The student knows how atoms form ionic, covalent, and metallic bonds. The student is expected to:

(A) construct an argument to support how periodic trends such as electronegativity can predict bonding between elements;

(B) name and write the chemical formulas for ionic and covalent compounds using International Union of Pure and Applied Chemistry (IUPAC) nomenclature rules;

(C) classify and draw electron dot structures for molecules with linear, bent, trigonal planar, trigonal pyramidal, and tetrahedral molecular geometries as explained by Valence Shell Electron Pair Repulsion (VSEPR) theory; and

(D) analyze the properties of ionic, covalent, and metallic substances in terms of intramolecular and intermolecular forces.

(8) Science concepts. The student understands how matter is accounted for in chemical substances. The student is expected to:

(A) define mole and apply the concept of molar mass to convert between moles and grams;

(B) calculate the number of atoms or molecules in a sample of material using Avogadro's number;

(C) calculate percent composition of compounds; and

(D) differentiate between empirical and molecular formulas.

(9) Science concepts. The student understands how matter is accounted for in chemical reactions. The student is expected to:

(A) **interpret,** write **,** and balance chemical equations **, including synthesis, decomposition, single replacement, double replacement, and combustion reactions** using the law of conservation of mass;

(B) differentiate among **[~~double replacement reactions, including~~]** acid-base reactions **, [~~and~~]** precipitation reactions, and oxidation-reduction reactions **[~~such as synthesis, decomposition, single replacement, and combustion reactions~~]** ;

(C) perform stoichiometric calculations, including determination of mass relationships, gas volume relationships, and percent yield; and

(D) describe the concept of limiting reactants in a balanced chemical equation.

(10) Science concepts. The student understands the principles of the kinetic molecular theory and ideal gas behavior. The student is expected to:

(A) describe the postulates of the kinetic molecular theory;

(B) describe and calculate the relationships among volume, pressure, number of moles, and temperature for an ideal gas; and

(C) define and apply Dalton's law of partial pressure.

(11) Science concepts. The student understands and can apply the factors that influence the behavior of solutions. The student is expected to:

(A) describe the unique role of water in solutions in terms of polarity;

(B) distinguish among types of solutions **, including [~~such as~~]** electrolytes and nonelectrolytes and unsaturated, saturated, and supersaturated solutions;

(C) investigate factors that influence solid and gas solubilities such as temperature using solubility curves and rates of dissolution such as temperature, agitation, and surface area;

(D) investigate the general rules regarding solubility and predict the products of a double replacement reaction;

(E) calculate the concentration of solutions in units of molarity; and

(F) calculate the dilutions of solutions using molarity.

(12) Science concepts. The student understands and applies various rules regarding acids and bases. The student is expected to:

(A) name and write the chemical formulas for acids **and bases** using IUPAC nomenclature rules;

(B) define acids and bases and distinguish between Arrhenius and Bronsted-Lowry definitions;

(C) differentiate between strong and weak acids and bases;

(D) predict products in acid-base reactions that form water; and

(E) define pH and calculate the pH of a solution using the hydrogen ion concentration.

(13) Science concepts. The student understands the energy changes that occur in chemical reactions. The student is expected to:

(A) explain everyday examples that illustrate the four laws of thermodynamics;

(B) investigate the process of heat transfer **using [~~in terms of~~]** calorimetry;

(C) **classify [~~differentiate~~]** processes as exothermic or endothermic and represent energy changes that occur in chemical reactions using thermochemical equations or graphical analysis; and

(D) perform calculations involving heat, mass, temperature change, and specific heat.

(14) Science concepts. The student understands the basic processes of nuclear chemistry. The student is expected to:

(A) describe the characteristics of alpha, beta, and gamma radioactive decay processes in terms of balanced nuclear equations;

(B) compare fission and fusion reactions; and

(C) give examples of applications of nuclear phenomena such as nuclear stability, radiation therapy, diagnostic imaging, solar cells, and nuclear power.

**§112.44. Integrated Physics and Chemistry (One Credit), Adopted 2020.**

(a) General requirements. Students shall be awarded one credit for successful completion of this course. This course is recommended for students in Grades 9 and 10.

(b) Introduction.

(1) Integrated Physics and Chemistry. **[~~By the end of Grade 12, students are expected to gain sufficient knowledge of the scientific and engineering practices across the disciplines of science to make informed decisions using critical thinking and scientific problem solving.~~]** In Integrated Physics and Chemistry, students conduct laboratory and field investigations, use engineering practices, use scientific practices during investigation, and make informed decisions using critical thinking and scientific problem solving. This course integrates the disciplines of physics and chemistry in the following topics: force, motion, energy, and matter. **By the end of Grade 12, students are expected to gain sufficient knowledge of the scientific and engineering practices across the disciplines of science to make informed decisions using critical thinking and scientific problem solving.**

(2) Nature of science. **Science, as defined by the National Academy of Sciences, is the "use of evidence to construct testable explanations and predictions of natural phenomena, as well as the knowledge generated through this process." [~~According to the National Science Teaching Association, the "nature of science is a critical component of scientific literacy that enhances students' understandings of science concepts and enables them to make informed decisions about scientifically-based personal and societal issues."~~]** This vast body of changing and increasing knowledge is described by physical, mathematical, and conceptual models. Students should know that some questions are outside the realm of science because they deal with phenomena that are not currently scientifically testable.

(3) Scientific hypotheses and theories. Students are expected to know that:

(A) hypotheses are tentative and testable statements that must be capable of being supported or not supported by observational evidence. Hypotheses of durable explanatory power that have been tested over a wide variety of conditions are incorporated into theories; and

(B) scientific theories are based on natural and physical phenomena and are capable of being tested by multiple independent researchers. Unlike hypotheses, scientific theories are well established and highly reliable explanations, but they may be subject to change as new areas of science and new technologies are developed.

(4) Scientific inquiry. Scientific inquiry is the planned and deliberate investigation of the natural world using scientific and engineering practices. Scientific methods of investigation are descriptive, comparative, or experimental. The method chosen should be appropriate to the question being asked. Student learning for different types of investigations include descriptive investigations, which involve collecting data and recording observations without making comparisons; comparative investigations, which involve collecting data with variables that are manipulated to compare results; and experimental investigations, which involve processes similar to comparative investigations but in which a control is identified.

(A) Scientific practices. Students should be able to ask questions, plan and conduct investigations to answer questions, and explain phenomena using appropriate tools and models.

(B) Engineering practices. Students should be able to identify problems and design solutions using appropriate tools and models.

(5) Science and social ethics. Scientific decision making is a way of answering questions about the natural world **, involving its own set of ethical standards about how the process of science should be carried out.** **[~~Social justice applies the concept of social responsibility to determine if something is ethical.~~]** Students should be able to distinguish between scientific decision-making methods (scientific **methods [~~and engineering practices~~]** ) and **ethical** **[~~the use of ethics~~] and social decisions that involve science (the application of scientific information) [~~justice to make decisions that involve the application of scientific information and engineering design~~]** .

(6) Scientific cross-cutting concepts. **Science consists of recurring themes and making connections between overarching concepts. Recurring themes include [~~Science is a series of cross-cutting concepts such as~~]** systems, models, and patterns. All systems have basic properties that can be described in space, time, energy, and matter. Change and constancy occur in systems as patterns and can be observed, measured, and modeled. These patterns help to make predictions that can be scientifically tested, while models allow for boundary specification and **provide a tool for [~~serve as tools~~]** for understanding the ideas presented. Students should analyze a system in terms of its components and how these components relate to each other, to the whole, and to the external environment.

(7) Statements containing the word "including" reference content that must be mastered, while those containing the phrase "such as" are intended as possible illustrative examples.

(c) Knowledge and skills.

(1) Scientific and engineering practices. The student, for at least 40% of instructional time, asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to explain phenomena, or design solutions using appropriate tools and models. The student is expected to:

(A) ask questions and define problems based on observations or information from text, phenomena, models, or investigations;

(B) apply scientific practices to plan and conduct descriptive, comparative, and experimental investigations and use engineering practices to design solutions to problems;

(C) use appropriate safety equipment and practices during laboratory, classroom, and field investigations as outlined in Texas Education Agency-approved safety standards;

(D) use appropriate tools such as data-collecting probes, software applications, the internet, standard laboratory glassware, metric rulers, meter sticks, spring scales, multimeters, Gauss meters, wires, batteries, light bulbs, switches, magnets, electronic balances, mass sets, Celsius thermometers, hot plates, an adequate supply of consumable chemicals, lab notebooks or journals, timing devices, models, and diagrams;

(E) collect quantitative data using the International System of Units (SI) and qualitative data as evidence;

(F) organize quantitative and qualitative data using labeled drawings and diagrams, graphic organizers, charts, tables, and graphs;

(G) develop and use models to represent phenomena, systems, **or** processes, or solutions to engineering problems; and

(H) distinguish between scientific hypotheses, theories, and laws.

(2) Scientific and engineering practices. The student analyzes and interprets data to derive meaning, identify features and patterns, and discover relationships or correlations to develop evidence-based arguments or evaluate designs. The student is expected to:

(A) identify advantages and limitations of models such as their size, scale, properties, and materials;

(B) analyze data by identifying significant statistical features, patterns, sources of error, and limitations;

(C) use mathematical calculations to assess quantitative relationships in data; and

(D) evaluate experimental and engineering designs.

(3) Scientific and engineering practices. The student develops evidence-based explanations and communicates findings, conclusions, and proposed solutions. The student is expected to:

(A) develop explanations and propose solutions supported by data and models and consistent with scientific ideas, principles, and theories;

(B) communicate explanations and solutions individually and collaboratively in a variety of settings and formats; and

(C) engage respectfully in scientific argumentation using applied scientific explanations and empirical evidence.

(4) Scientific and engineering practices. The student knows the contributions of scientists and recognizes the importance of scientific research and innovation on society. The student is expected to:

(A) analyze, evaluate, and critique scientific explanations and solutions by using empirical evidence, logical reasoning, and experimental and observational testing, so as to encourage critical thinking by the student;

(B) relate the impact of past and current research on scientific thought and society, including research methodology, ethics, and contributions of diverse scientists as related to the content; **[~~and~~]**

(C) research and explore connections between grade-level appropriate science concepts and science, technology, engineering, and mathematics (STEM) careers **; and** [.]

**(D) describe the nature of the four fundamental forces: gravitation, electromagnetic, the strong and weak nuclear forces, including fission and fusion, and mass-energy equivalency.**

(5) Science concepts. The student knows the relationship between force and motion in everyday life. The student is expected to:

(A) investigate, analyze, and model motion in terms of position, velocity, acceleration, and time using tables, graphs, and mathematical relationships;

(B) analyze data to explain the relationship between mass and acceleration in terms of the net force on an object in one dimension using force diagrams, tables, and graphs;

(C) apply the concepts of momentum and impulse to design, evaluate, and refine a device to minimize the net force on objects during collisions such as those that occur during vehicular accidents, sports activities, or the dropping of personal electronic devices; and

(D) construct and communicate an explanation based on evidence for how changes in mass, charge, and distance affect the strength of gravitational and electrical forces between two objects.

(E) **investigate and demonstrate the movement of thermal energy through solids, liquids, and gases by convection, conduction, and radiation such as weather, living, and mechanical systems.**

(6) Science concepts. The student knows the impact of energy transfer and energy conservation in everyday life. The student is expected to:

(A) design and construct series and parallel circuits that model real-world circuits such as in-home wiring, automobile wiring, and simple electrical devices to evaluate the transfer of electrical energy;

(B) design, evaluate, and refine a device that generates electrical energy through the interaction of electric charges and magnetic fields **[~~such as a generator, windmill, or other mechanically powered device~~]** ;

(C) plan and conduct an investigation to provide evidence that energy is conserved within a closed system;

**(F) [~~(D)~~]** plan and conduct an investigation to evaluate the transfer of energy or information through different materials by different types of waves such as wireless signals, ultraviolet radiation, and microwaves;

**(G) [~~(E)~~]** construct and communicate an evidence-based explanation for how wave interference, reflection, and refraction are used in technology such as medicine, communication, and scientific research; and

**(H) [~~(F)~~]** evaluate evidence from multiple sources to critique the advantages and disadvantages of various renewable and nonrenewable energy sources and their impact on society and the environment.

(7) Science concepts. The student knows that relationships exist between the structure and properties of matter. The student is expected to:

(A) **model basic atomic structure and** relate an element's atomic structure to its bonding, reactivity, and placement on the Periodic Table;

(B) use patterns within the Periodic Table to predict the relative physical and chemical properties of elements;

(C) explain how physical and chemical properties of substances are related to their usage in everyday life such as in sunscreen, cookware, industrial applications, and fuels; and

**(D) explain how electrons can transition from a high energy level to a low energy state, emitting photons at different frequencies for different energy transitions;**

**(E) explain how atomic energy levels and emission spectra present evidence for the wave particle duality;**

**(D) [~~(E)~~]** plan and conduct an investigation to provide evidence that the rate of reaction or dissolving is affected by multiple factors such as particle size, stirring, temperature, and concentration

.

(8) Science concepts. The student knows that changes in matter affect everyday life. The student is expected to:

(A) investigate how changes in properties are indicative of chemical reactions such as hydrochloric acid with a metal, oxidation of metal, combustion, and neutralizing an acid with **a base [~~an antacid~~]** ;

(B) develop and use models to balance chemical equations and support the claim that atoms, and therefore mass, are conserved during a chemical reaction;

(C) research and communicate the uses, advantages, and disadvantages of nuclear reactions in current technologies; and

(D) construct and communicate an evidence-based explanation of the environmental impact of the end-products of chemical reactions such as those that may result in degradation of water, soil, **[~~and~~]** air quality **, and global climate change**.

**§112.45. Physics (One Credit), Adopted 2020.**

(a) General requirements. Students shall be awarded one credit for successful completion of this course. Recommended prerequisite or corequisite: Algebra I. This course is recommended for students in Grades 9-12.

(b) Introduction.

(1) Physics. **[~~By the end of Grade 12, students are expected to gain sufficient knowledge of the scientific and engineering practices across the disciplines of science to make informed decisions using critical thinking and scientific problem solving.~~]** In Physics, students conduct laboratory and field investigations, use scientific practices during investigations, and make informed decisions using critical thinking and scientific problem solving. Students study a variety of topics that include: laws of motion, changes within physical systems and conservation of energy and momentum, forces, characteristics and behavior of waves, and electricity and magnetism. Students will apply conceptual knowledge and collaborative skills to experimental design, implementation, and interpretation. **By the end of Grade 12, students are expected to gain sufficient knowledge of the scientific and engineering practices across the disciplines of science to make informed decisions using critical thinking and scientific problem solving.**

(2) Nature of science. **Science, as defined by the National Academy of Sciences, is the "use of evidence to construct testable explanations and predictions of natural phenomena, as well as the knowledge generated through this process." [~~According to the National Science Teaching Association, the "nature of science is a critical component of scientific literacy that enhances students' understandings of science concepts and enables them to make informed decisions about scientifically based personal and societal issues."~~]** This vast body of changing and increasing knowledge is described by physical, mathematical, and conceptual models. Students should know that some questions are outside the realm of science because they deal with phenomena that are not currently scientifically testable.

(3) Scientific hypotheses and theories. Students are expected to know that:

(A) hypotheses are tentative and testable statements that must be capable of being supported or not supported by observational evidence. Hypotheses of durable explanatory power that have been tested over a wide variety of conditions are incorporated into theories; and

(B) scientific theories are based on natural and physical phenomena and are capable of being tested by multiple independent researchers. Unlike hypotheses, scientific theories are well established and highly reliable explanations, but they may be subject to change as new areas of science and new technologies are developed.

(4) Scientific inquiry. Scientific inquiry is the planned and deliberate investigation of the natural world using scientific and engineering practices. Scientific methods of investigation are descriptive, comparative, or experimental. The method chosen should be appropriate to the question being asked. Student learning for different types of investigations include descriptive investigations, which involve collecting data and recording observations without making comparisons; comparative investigations, which involve collecting data with variables that are manipulated to compare results; and experimental investigations, which involve processes similar to comparative investigations but in which a control is identified.

(A) Scientific practices. Students should be able to ask questions, plan and conduct investigations to answer questions, and explain phenomena using appropriate tools and models.

(B) Engineering practices. Students should be able to identify problems and design solutions using appropriate tools and models.

(5) Science and social ethics. Scientific decision making is a way of answering questions about the natural world **, involving its own set of ethical standards about how the process of science should be carried out.** **[~~Social justice applies the concept of social responsibility to determine if something is ethical.~~]** Students should be able to distinguish between scientific decision-making methods (scientific **methods** **[~~and engineering practices~~]** ) and **ethical** **[~~the use of ethics~~]** **and social decisions that involve science (the application of scientific information)** **[~~justice to make decisions that involve the application of scientific information and engineering design~~]** .

(6) Scientific cross-cutting concepts. **Science consists of recurring themes and making connections between overarching concepts. Recurring themes include** **[~~Science is a series of cross-cutting concepts such as~~]** systems, models, and patterns. All systems have basic properties that can be described in space, time, energy, and matter. Change and constancy occur in systems as patterns and can be observed, measured, and modeled. These patterns help to make predictions that can be scientifically tested, while models allow for boundary specification and **provide a tool** **[~~serve as tools~~]** for understanding the ideas presented. Students should analyze a system in terms of its components and how these components relate to each other, to the whole, and to the external environment.

(7) Statements containing the word "including" reference content that must be mastered, while those containing the phrase "such as" are intended as possible illustrative examples.

(c) Knowledge and skills.

(1) Scientific and engineering practices. The student, for at least 40% of instructional time, asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to explain phenomena, or design solutions using appropriate tools and models. The student is expected to:

(A) ask questions and define problems based on observations or information from text, phenomena, models, or investigations;

(B) apply scientific practices to plan and conduct descriptive, comparative, and experimental investigations, and use engineering practices to design solutions to problems;

(C) use appropriate safety equipment and practices during laboratory, classroom, and field investigations as outlined in Texas Education Agency-approved safety standards;

(D) use appropriate tools such as balances, ballistic carts or equivalent, batteries, computers, constant velocity cars, convex lenses, copper wire, discharge tubes with power supply (H,

He, Ne, Ar), data acquisition probes and software, dynamics and force demonstration equipment, electrostatic generators, electrostatic kits, friction blocks, graph paper, graphing technology, hand-held visual spectroscopes, inclined planes, iron filings, lab masses, laser pointers, magnets, magnetic compasses, metric rulers, motion detectors, multimeters (current, voltage, resistance), optics bench, optics kit, photogates, plane mirrors, prisms, protractors, pulleys, resistors, rope or string, scientific calculators, stopwatches, springs, spring scales, switches, tuning forks, wave generators, or other equipment and materials that will produce the same results;

(E) collect quantitative data using the International System of Units (SI) and qualitative data as evidence;

(F) organize quantitative and qualitative data using bar charts, line graphs, scatter plots, data tables, labeled diagrams, and conceptual mathematical relationships;

(G) develop and use models to represent phenomena, systems, processes, or solutions to engineering problems; and

(H) distinguish among scientific hypotheses, theories, and laws.

(2) Scientific and engineering practices. The student analyzes and interprets data to derive meaning, identify features and patterns, and discover relationships or correlations to develop evidence-based arguments or evaluate designs. The student is expected to:

(A) identify advantages and limitations of models such as their size, scale, properties, and materials;

(B) analyze data by identifying significant statistical features, patterns, sources of error, and limitations;

(C) use mathematical calculations to assess quantitative relationships in data; and

(D) evaluate experimental and engineering designs.

(3) Scientific and engineering practices. The student develops evidence-based explanations and communicates findings, conclusions, and proposed solutions. The student is expected to:

(A) develop explanations and propose solutions supported by data and models and consistent with scientific ideas, principles, and theories;

(B) communicate explanations and solutions individually and collaboratively in a variety of settings and formats; and

(C) engage respectfully in scientific argumentation using applied scientific explanations and empirical evidence.

(4) Scientific and engineering practices. The student knows the contributions of scientists and recognizes the importance of scientific research and innovation on society. The student is expected to:

(A) analyze, evaluate, and critique scientific explanations and solutions by using empirical evidence, logical reasoning, and experimental and observational testing, so as to encourage critical thinking by the student;

(B) relate the impact of past and current research on scientific thought and society, including research methodology, ethics, and contributions of diverse scientists as related to the content; and

(C) research and explore connections between grade-level appropriate science concepts and science, technology, engineering, and mathematics (STEM) careers.

(5) Science concepts. The student knows and applies the laws governing motion in a variety of situations. The student is expected to:

(A) analyze different types of motion by generating and interpreting position versus time, velocity versus time, and acceleration versus time using hand graphing and real-time technology such as motion detectors, photogates, or digital applications;

(B) define scalar and vector quantities related to one- and two-dimensional motion and combine vectors using both graphical vector addition and the Pythagorean theorem;

(C) describe and analyze motion in one dimension using equations with the concepts of distance, displacement, speed velocity, frames of reference, and acceleration;

(D) describe and analyze **acceleration in uniform circular and horizontal projectile motion [~~accelerated motion in two dimensions of horizontally launched projectiles~~]** using equations;

(E) explain and apply the concepts of equilibrium and inertia as represented by Newton's first law of motion using relevant real-world examples such as rockets, satellites, and automobile safety devices;

(F) calculate the effect of forces on objects, including tension, friction, normal, gravity, **centripetal,** and applied forces, using free body diagrams and the relationship between force and acceleration as represented by Newton's second law of motion;

(G) illustrate and analyze the simultaneous forces between two objects as represented in Newton's third law of motion using free body diagrams and in an experimental design scenario; and

(H) describe and calculate, using scientific notation, how the magnitude of force between two objects depends on their masses and the distance between their centers, and predict the effects on objects in linear and orbiting systems using Newton's law of universal gravitation.

(6) Science concepts. The student knows the nature of forces in the physical world. The student is expected to:

(A) use scientific notation and predict how the magnitude of the electric force between two objects depends on their charges and the distance between their centers using Coulomb's law;

(B) identify and describe examples of electric and magnetic forces and fields in everyday life such as generators, motors, and transformers;

(C) investigate and describe conservation of charge during the processes of induction, conduction, and polarization using different materials such as electroscopes, balloons, rods, fur, silk, and Van der Graaf generators;

(D) analyze, design, and construct series and parallel circuits using schematics and materials such as switches, wires, resistors, lightbulbs, batteries, voltmeters, and ammeters; and

(E) calculate current through, potential difference across, resistance of, and power used by electric circuit elements connected in both series and parallel circuits using Ohm's law.

(7) Science concepts. The student knows that changes occur within a physical system and applies the laws of conservation of energy and momentum. The student is expected to:

(A) calculate and explain work and power in one dimension and identify when work is and is not being done by or on a system;

(B) investigate and calculate mechanical, kinetic, and potential energy of a system;

(C) apply the concept of conservation of energy using the work-energy theorem, energy diagrams, and energy transformation equations **, including transformations between kinetic, potential, and thermal energy**;

(D) calculate and describe the impulse and momentum of **objects in** physical systems **[~~using examples~~]** such as automobile safety features, athletics, and rockets; and

(E) analyze the conservation of momentum qualitatively in inelastic and elastic collisions in one dimension using models, diagrams, and simulations.

(8) Science concepts. The student knows the characteristics and behavior of waves. The student is expected to:

(A) examine and describe simple harmonic motion **such as springs and pendulums** **[~~, standing waves,~~]** and wave energy propagation in various types of media **[~~using examples such as springs, pendulums, ropes, and~~]** **such as** surface waves on a body of water **and ropes**;

(B) compare the characteristics of transverse and longitudinal waves, including electromagnetic and sound waves; **[~~investigate and analyze characteristics of waves, including velocity, frequency, amplitude, and wavelength, and calculate using the relationships between wave speed, frequency, energy, and wavelength;~~]**

(C) investigate and analyze characteristics of waves, including velocity, frequency, amplitude, and wavelength, and calculate using the relationships between wave speed, frequency, **[~~energy,~~]** and wavelength; **[~~compare the different applications of the electromagnetic spectrum;~~]**

(D) investigate behaviors of waves, including reflection, refraction, diffraction, interference, **standing wave, [~~resonance, and~~]** the Doppler effect **, polarization and superposition**; **[~~investigate the emission spectra produced by various atoms and explain the relationship to the electromagnetic spectrum;~~]**

(E) compare the different applications of the electromagnetic spectrum **, including radio telescopes, microwaves, and X-rays**; [~~compare the characteristics of transverse and longitudinal waves, including electromagnetic and sound waves;~~]

(F) investigate the emission spectra produced by various atoms and explain the relationship to the electromagnetic spectrum; **[~~investigate behaviors of waves, including reflection, refraction, diffraction, interference, resonance, and the Doppler effect;~~]**

(G) describe and predict image formation as a consequence of reflection from a plane mirror and refraction through a thin convex lens **. [; and]**

**[~~(H) describe the photoelectric effect and the dual nature of light.~~]**

**(9) Science concepts. The student knows examples of quantum phenomena and their applications. The student is expected to:**

**(A) describe the photoelectric effect and emission spectra produced by various atoms and how both are explained by the photon model for light;**

**(B) investigate Malus's Law and describe examples of applications of wave polarization, including three-dimensional movie glasses and LCD computer screens;**

**(C) compare and explain how superposition of quantum states is related to the wave-particle duality nature of light; and**

**(D) give examples of applications of quantum phenomena, including Heisenberg's uncertainty principle, quantum computing, and cybersecurity.**

**Report of the State Board of Education**
**Committee on School Initiatives**
**September 10, 2020**

The State Board of Education Committee on School Initiatives met at 8:04 a.m. on Thursday, September 10, 2020, in the State Board of Education Room, #1-104, of the William B. Travis Building, 1701 N. Congress Avenue, Austin, Texas. Attendance was noted as follows:

Present: Barbara Cargill, chair; Marisa B. Perez-Diaz, vice chair; Ruben Cortez, Jr.; Keven Ellis; Matt Robinson

Non-committee Members Present: Tom Maynard, Georgina C. Pérez

**Public Testimony**

The Committee of the Full Board received no presentations of public testimony.

## ACTION ITEMS

1. **Review of Proposed Amendments to 19 TAC Chapter 227, Provisions for Educator Preparation Candidates, Subchapter A, Admission to Educator Preparation Programs**
   (Board agenda page IV-1)
   [Official agenda item #6]

   Mark Olofson, director, educator data and preparation program management, explained that the proposal would update the subject-matter-only assessments to be used for the Pre-Admission Content Test. Mr. Olofson stated that the proposal was unanimously adopted by the State Board for Educator Certification (SBEC) and that no public comments were received on the proposal.

   **MOTION AND VOTE:** *It was moved by Mr. Cortez, seconded by Dr. Robinson, and carried unanimously to recommend that the State Board of Education take no action on the proposed amendments to 19 TAC Chapter 227, Provisions for Educator Preparation Candidates, Subchapter A, Admission to Educator Preparation Programs.*

2. **Review of Proposed Amendments to 19 TAC Chapter 228, Requirements for Educator Preparation Programs**
   (Board agenda page IV-20)
   [Official agenda item #7]

   Dr. Olofson explained that the rules in Chapter 228 govern educator preparation programs and that the proposal would implement legislation and align rule with requirements that are elsewhere in the Texas Administrative Code. He explained that the proposal was unanimously adopted by the SBEC.

   **MOTION AND VOTE:** *It was moved by Dr. Robinson, seconded by Ms. Perez-Diaz, and carried unanimously to recommend that the State Board of Education take no action on proposed amendments to 19 TAC Chapter 228, Requirements for Educator Preparation Programs.*

**3. Review of Proposed Amendment to 19 TAC Chapter 228, Requirements for Educator Preparation Programs, §228.1, General Provisions**
(Board agenda page IV-50)
[Official agenda item #8]

Dr. Olofson explained that the proposal would provide additional flexibility for educator preparation programs and candidates by allowing the use of virtual settings to fulfill requirements related to clinical teaching, internships, and practicums. He explained that 19 public comments were received that generally supported rule.

**MOTION AND VOTE:** *It was moved by Mr. Cortez, seconded by Dr. Ellis, and carried unanimously to recommend that the State Board of Education take no action on proposed amendment to 19 TAC Chapter 228, Requirements for Educator Preparation Programs, §228.1, General Provisions.*

**4. Review of Proposed Amendment to 19 TAC Chapter 230, Professional Educator Preparation and Certification, Subchapter C, Assessment of Educators, § 230.21, Educator Assessment**
(Board agenda page IV-55)
[Official agenda item #9]

Ryan Franklin, associate commissioner, explained that the proposal would implement the statutory requirement that all educators who teach any grade level from Prekindergarten–Grade 6 demonstrate proficiency in the science of teaching reading on a certification examination beginning January 1, 2021. He explained that the proposal would also update the examination figure in the rule to specify the required examination(s) for issuance of the replacement certificates that reflect the science of teaching reading requirement and would also provide clarification on relevant implementation dates for specific certification examinations. Mr. Franklin stated that three comments were received and that two were outside scope of proposed rulemaking.

**MOTION AND VOTE:** *It was moved by Ms. Perez-Diaz, seconded by Mr. Cortez, and carried unanimously to recommend that the State Board of Education take no action on the proposed amendment to 19 TAC Chapter 230, Professional Educator Preparation and Certification, Subchapter C, Assessment of Educators, §230.21, Educator Assessment.*

**5. Review of Proposed Amendments to 19 TAC Chapter 233, Categories of Classroom Teaching Certificates**
(Board agenda page IV-76)
[Official agenda item #10]

Mr. Franklin explained that Chapter 233 would address categories of teaching certificates that SBEC issues, and the proposal would create four replacement certificates with corresponding requirements and deadlines for issuance: Core Subjects with Science of Teaching Reading: Early Childhood–Grade 6; Core Subjects with Science of Teaching Reading: Grades 4–8; English Language Arts and Reading with Science of Teaching Reading: Grades 4–8; and English Language Arts and Reading/Social Studies with Science of Teaching Reading: Grades 4–8. Mr. Franklin added that technical changes would also provide clarification and consistent information related to the classroom teacher certificates issued by the SBEC.

**MOTION AND VOTE:** *It was moved by Dr. Robinson, seconded by Dr. Ellis, and carried unanimously to recommend that the State Board of Education take no action on proposed amendments to 19 TAC Chapter 233, Categories of Classroom Teaching Certificates.*

**6. Review of Proposed Revisions to 19 TAC Chapter 235, Classroom Teacher Certification Standards**
(Board agenda page IV-84)
[Official agenda item #11]

Mr. Franklin explained that the proposal would specify the new standards for the specialized Special Education and Bilingual Spanish certifications, as well as the DeafBlind supplemental certification. He explained that SBEC received extensive public comment on this proposal.

**MOTION AND VOTE:** *It was moved by Mr. Cortez, seconded by Ms. Perez-Diaz, and carried unanimously to recommend that the State Board of Education take no action on proposed revisions to 19 TAC Chapter 235, Classroom Teacher Certification Standards.*

The meeting of the Committee on School Initiatives adjourned at 8:23 a.m.

**Report of the State Board of Education**
**Committee of the Full Board**
**September 10, 2020**

The State Board of Education Committee of the Full Board met at 9:11 a.m. on Thursday, September 10, 2020, in the State Board of Education Room, #1-104, of the William B. Travis Building, 1701 N. Congress Avenue, Austin, Texas. Attendance was noted as follows:

Present: Keven Ellis, chair; Lawrence A. Allen, Jr.; Donna Bahorich; Barbara Cargill; Ruben Cortez, Jr.; Aicha Davis; Pat Hardy; Pam Little; Tom Maynard; Sue Melton-Malone; Ken Mercer; Georgina C. Pérez; Marisa B. Perez-Diaz; Matt Robinson; Marty Rowley

**Public Testimony**

The Committee of the Full Board heard public testimony on agenda item #1. Information regarding the individuals who presented public testimony is included in the discussion of that item.

## ACTION ITEM

**1. Consideration of the Commissioner of Education's Generation 25 Open-Enrollment Charter School Proposals**
(Board agenda page I-95)
[Official agenda item #12]

Public testimony was provided by the following individuals:

| | |
|---|---|
| NAME: | Starlee Coleman |
| AFFILIATION: | Texas Public Charter Schools Association |
| NAME: | Daiana Lambrecht |
| AFFILIATION: | Rocketship Public Schools |
| NAME: | Rolinda Schmidt |
| AFFILIATION: | Texas Association of School Boards |
| NAME: | Perla Vidales |
| AFFILIATION: | Self |
| NAME: | Ray Tijerina |
| AFFILIATION: | Self |
| NAME: | Kim Truss |
| AFFILIATION: | Self |
| NAME: | Inga Cotton |
| AFFILIATION: | Self |

NAME: MerryLynn Gerstenschlager
AFFILIATION: Self

NAME: Lisa McDaniel
AFFILIATION: Self

NAME: Lisa Cooley Thomas
AFFILIATION: Self

NAME: Sharon Griffin
AFFILIATION: Self

NAME: Jason Colon
AFFILIATION: Rocketship Public Schools

NAME: Paul Dirden
AFFILIATION: Self

NAME: Lorie Atwood
AFFILIATION: Self

NAME: Yvette Leno
AFFILIATION: Heritage Classical Academy

NAME: Carino Cortez
AFFILIATION: Self

NAME: Kim Martinic
AFFILIATION: Texas State Teacher Association

NAME: Chloe Sikes
AFFILIATION: Intercultural Development Research Association

NAME: Ana Molina
AFFILIATION: Self

NAME: Robert Nickell
AFFILIATION: Self

NAME: Victoria Rico
AFFILIATION: The George W. Brackenridge Foundation

NAME: Rosemary Scott
AFFILIATION: Self

NAME: Peyton Wolcott
AFFILIATION: Self

NAME: Rose Garcia
AFFILIATION: Self

NAME: Jim Chadwell
AFFILIATION: Eagle Mountain-Saginaw Independent School District (ISD)

NAME: David Dunn
AFFILIATION: Self

NAME: Sandra Rivera
AFFILIATION: Self

NAME: Ty Davidson
AFFILIATION: Austin ISD

NAME: Arati Singh
AFFILIATION: Self

NAME: Tom Sage
AFFILIATION: Self

NAME: Criselda Occhiuzzi
AFFILIATION: Self

NAME: Tracey Cortez
AFFILIATION: Navarro High School

NAME: Laurie Bricker
AFFILIATION: Self

NAME: Alexas Perez
AFFILIATION: Self

NAME: Samille Palm
AFFILIATION: Self

NAME: Sarah Johnson
AFFILIATION: Self

NAME: Laiza Vidales
AFFILIATION: Self

NAME: Kevin Brown
AFFILIATION: Texas Association of School Administrators

NAME: Ruth York
AFFILIATION: Self

NAME: Bridget Galvan
AFFILIATION: Self

NAME: Terrance Jones
AFFILIATION: Self

NAME: Sergio Alaniz
AFFILIATION: Brillante Academy

NAME: Andrew Flores
AFFILIATION: Self

NAME: Michael Lee
AFFILIATION: Texas Association of Rural Schools

NAME: Magdalena Leyva
AFFILIATION: Self

NAME: Lori Kirkpatrick
AFFILIATION: Coalition for Equity in Public Education

NAME: Rose Mary Neshyba
AFFILIATION: Lake Worth ISD

NAME: Walt Sims
AFFILIATION: Self

NAME: David Anderson
AFFILIATION: Self

NAME: Ward Tisdale
AFFILIATION: Texas First/Learn4Life

NAME: Kenny Lu
AFFILIATION: Self

NAME: Julie Hinaman
AFFILIATION: Cypress-Fairbanks ISD Board of Trustees

NAME: Eric Wright
AFFILIATION: Hays Consolidated ISD

NAME: Esperanza Orosco
AFFILIATION: Hays Consolidated ISD

**MOTION:** *It was moved by Mr. Maynard and seconded by Mrs. Cargill to recommend that the State Board of Education review and take no action on the following proposed Generation 25 Subchapter D. Open-Enrollment Charter Schools scheduled to open in the 2021-2022 school year:*

*Brillante Academy (McAllen)*
*CLEAR Public Charter School (San Marcos)*
*Doral Academy of Texas (Buda)*
*Heritage Classical Academy (Houston)*
*Learn4Life-Austin (Austin)*
*Prelude Preparatory Charter School (San Antonio)*
*Rocketship Public Schools (Fort Worth)*
*Royal Public Schools (San Antonio)*

Invited testimony was provided by the following individuals:

NAME: Aaron Brenner
AFFILIATION: Brillante Academy

NAME: Daniel West
AFFILIATION: Brillante Academy

NAME: Jason Harris
AFFILIATION: CLEAR Public Charter School

NAME: Jeremy Jones
AFFILIATION: CLEAR Public Charter School

NAME: Krista Piferrer
AFFILIATION: Doral Academy of Texas

NAME: TaLisa Wilson
AFFILIATION: Doral Academy of Texas

NAME: Stuart Saunders
AFFILIATION: Heritage Classical Academy

NAME: Kathryn van der Pol
AFFILIATION: Heritage Classical Academy

NAME: Kenya Jackson
AFFILIATION: Learn4Life-Austin

NAME: Wayne Knox
AFFILIATION: Learn4Life-Austin

NAME: Lauren Lewis
AFFILIATION: Prelude Preparatory Charter School

NAME: Kim Munoz
AFFILIATION: Prelude Preparatory Charter School

NAME: SaJade Miller
AFFILIATION: Rocketship Public Schools

NAME: Peter Philpott
AFFILIATION: Rocketship Public Schools

NAME: Soner Tarim
AFFILIATION: Royal Public Schools

NAME: Abelardo Saavedra
AFFILIATION: Royal Public Schools

**MOTION AND VOTE:** *It was moved by Ms. Perez-Diaz, seconded by Mr. Cortez, and carried to divide the question.*

**VOTE:** *A vote was taken on the motion to review and take no action on Brillante Academy (McAllen). The motion carried with 9 members voting Aye and 5 members voting No as follows:*

| | | |
|---|---|---|
| *Aye:* | *Mr. Allen* | *Mr. Maynard* |
| | *Mrs. Bahorich* | *Mrs. Melton-Malone* |
| | *Mrs. Cargill* | *Mr. Mercer* |
| | *Ms. Hardy* | *Mr. Rowley* |
| | *Mrs. Little* | |
| *No:* | *Mr. Cortez* | *Ms. Perez-Diaz* |
| | *Ms. Davis* | *Dr. Robinson* |
| | *Ms. Pérez* | |

**VOTE:** *A vote was taken on the motion to review and take no action on CLEAR Public Charter School (San Marcos). The motion carried with 8 members voting Aye and 7 members voting No as follows:*

| | | |
|---|---|---|
| *Aye:* | *Mr. Allen* | *Ms. Hardy* |
| | *Mrs. Bahorich* | *Mr. Maynard* |
| | *Mrs. Cargill* | *Mr. Mercer* |
| | *Dr. Ellis* | *Mr. Rowley* |
| *No:* | *Mr. Cortez* | *Ms. Pérez* |
| | *Ms. Davis* | *Ms. Perez-Diaz* |
| | *Mrs. Little* | *Dr. Robinson* |
| | *Mrs. Melton-Malone* | |

**VOTE:** *A vote was taken on the motion to review and take no action on Doral Academy of Texas (Buda). The motion carried with 8 members voting Aye and 7 members voting No as follows:*

| | | |
|---|---|---|
| *Aye:* | *Mr. Allen* | *Ms. Hardy* |
| | *Mrs. Bahorich* | *Mr. Maynard* |
| | *Mrs. Cargill* | *Mr. Mercer* |
| | *Dr. Ellis* | *Mr. Rowley* |
| *No:* | *Mr. Cortez* | *Ms. Pérez* |
| | *Ms. Davis* | *Ms. Perez-Diaz* |
| | *Mrs. Little* | *Dr. Robinson* |
| | *Mrs. Melton-Malone* | |

**VOTE:** *A vote was taken on the motion to review and take no action on Heritage Classical Academy (Houston). The motion failed with 6 members voting Aye and 8 members voting No as follows:*

| | | |
|---|---|---|
| *Aye:* | *Mrs. Bahorich* | *Mr. Maynard* |
| | *Mrs. Cargill* | *Mr. Mercer* |
| | *Ms. Hardy* | *Mr. Rowley* |
| *No:* | *Mr. Allen* | *Mrs. Melton-Malone* |
| | *Mr. Cortez* | *Ms. Pérez* |
| | *Ms. Davis* | *Ms. Perez-Diaz* |
| | *Mrs. Little* | *Dr. Robinson* |

**VOTE:** *A vote was taken on the motion to review and take no action on Learn4Life-Austin (Austin). The motion carried with 9 members voting Aye and 5 members voting No as follows:*

| | | |
|---|---|---|
| *Aye:* | *Mr. Allen* | *Mr. Maynard* |
| | *Mrs. Bahorich* | *Mrs. Melton-Malone* |
| | *Mrs. Cargill* | *Mr. Mercer* |
| | *Ms. Hardy* | *Mr. Rowley* |
| | *Mrs. Little* | |
| *No:* | *Mr. Cortez* | *Ms. Perez-Diaz* |
| | *Ms. Davis* | *Dr. Robinson* |
| | *Ms. Pérez* | |

**VOTE:** *A vote was taken on the motion to review and take no action on Prelude Preparatory Charter School (San Antonio). The motion carried with 9 members voting Aye and 5 members voting No as follows:*

| | | |
|---|---|---|
| *Aye:* | *Mr. Allen* | *Mr. Maynard* |
| | *Mrs. Bahorich* | *Mrs. Melton-Malone* |
| | *Mrs. Cargill* | *Mr. Mercer* |
| | *Ms. Hardy* | *Mr. Rowley* |
| | *Mrs. Little* | |
| *No:* | *Mr. Cortez* | *Ms. Perez-Diaz* |
| | *Ms. Davis* | *Dr. Robinson* |
| | *Ms. Pérez* | |

**VOTE:** *A vote was taken on the motion to review and take no action on Rocketship Public Schools (Fort Worth). The motion failed with 2 members voting Aye and 12 members voting No as follows:*

| | | |
|---|---|---|
| *Aye:* | *Mrs. Cargill* | *Ms. Hardy* |
| *No:* | *Mr. Allen* | *Mrs. Melton-Malone* |
| | *Mrs. Bahorich* | *Mr. Mercer* |
| | *Mr. Cortez* | *Ms. Pérez* |
| | *Ms. Davis* | *Ms. Perez-Diaz* |
| | *Mrs. Little* | *Dr. Robinson* |
| | *Mr. Maynard* | *Mr. Rowley* |

**VOTE:** *A vote was taken on the motion to review and take no action on Royal Public Schools (San Antonio). The motion carried with 9 members voting Aye and 5 members voting No as follows:*

| | | |
|---|---|---|
| *Aye:* | *Mr. Allen* | *Mr. Maynard* |
| | *Mrs. Bahorich* | *Mrs. Melton-Malone* |
| | *Mrs. Cargill* | *Mr. Mercer* |
| | *Ms. Hardy* | *Mr. Rowley* |
| | *Mrs. Little* | |
| *No:* | *Mr. Cortez* | *Ms. Perez-Diaz* |
| | *Ms. Davis* | *Dr. Robinson* |
| | *Ms. Pérez* | |

**MOTION:** *It was moved by Ms. Perez-Diaz and seconded by Mr. Cortez to recommend that the State Board of Education take affirmative action to veto Heritage Classical Academy (Houston) and Rocketship Public Schools (Fort Worth).*

**MOTION AND VOTE:** *It was moved by Mr. Rowley, seconded by Mr. Maynard, and carried to divide the question.*

**VOTE:** *A vote was taken on the motion to veto Heritage Classical Academy (Houston). The motion carried with 8 members voting Aye and 6 members voting No as follows:*

| | | |
|---|---|---|
| *Aye:* | *Mr. Allen* | *Mrs. Melton-Malone* |
| | *Mr. Cortez* | *Ms. Pérez* |
| | *Ms. Davis* | *Ms. Perez-Diaz* |
| | *Mrs. Little* | *Dr. Robinson* |
| *No:* | *Mrs. Bahorich* | *Mr. Maynard* |
| | *Mrs. Cargill* | *Mr. Mercer* |
| | *Ms. Hardy* | *Mr. Rowley* |

**VOTE:** *A vote was taken on the motion to veto Rocketship Public Schools (Fort Worth). The motion carried with 12 members voting Aye and 2 members voting No as follows:*

| | | |
|---|---|---|
| *Aye:* | *Mr. Allen* | *Mrs. Melton-Malone* |
| | *Mrs. Bahorich* | *Mr. Mercer* |
| | *Mr. Cortez* | *Ms. Pérez* |
| | *Ms. Davis* | *Ms. Perez-Diaz* |
| | *Mrs. Little* | *Dr. Robinson* |
| | *Mr. Maynard* | *Mr. Rowley* |
| *No:* | *Mrs. Cargill* | *Ms. Hardy* |

The committee continued consideration of proposed new 19 TAC Chapter 115, Texas Essential Knowledge and Skills for Health Education, Subchapter A, Elementary, §§115.11-115.17, Subchapter B, Middle School, §§115.25-115.28, and Subchapter C, High School, §§115.37-115.39.

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich, seconded by Mr. Mercer and carried to recommend that the State Board of Education amend §115.27(b)(2)(C) to read:*

"identify barriers related to solving health problems and ways to overcome barriers"

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich, seconded by Mrs. Cargill and carried to recommend that the State Board of Education strike §115.27(b)(2)(D).*

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich, seconded by Mr. Mercer and carried to recommend that the State Board of Education amend §115.27(b)(3)(A) to read:*

"identify and analyze different emotions and their causal thoughts in self ~~and others~~"

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich, seconded by Mrs. Cargill and carried to recommend that the State Board of Education amend §115.27(b)(3)(B) to read:*

"analyze the relationship between thoughts, feelings, and behaviors and demonstrate ~~describe and apply~~ healthy techniques for managing reactions in times of emotional stress;"

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich, seconded by Mr. Mercer and carried to recommend that the State Board of Education amend §115.27(b)(3)(D) to read:*

"demonstrate perspective-taking and communication skills in building and maintaining healthy relationships and determining when and how to end unhealthy relationships"

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich, seconded by Mrs. Cargill and carried to recommend that the State Board of Education amend §115.27(b)(3)(F) to read:*

"analyze and demonstrate appropriate ways to ~~show disapproval of~~ discourage inconsiderate and disrespectful behavior, including in school; and"

**MOTION AND VOTE:** *It was moved by Mrs. Cargill, seconded by Mr. Mercer and carried to recommend that the State Board of Education amend §115.26(b)(4) and §115.27(b)(4) to add a new student expectation to read:*

"Create and discuss personal life goals that one wishes to achieve and consider the financial impact of graduating from high school, having a full-time job, and waiting until marriage if one plans to have children."

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich, seconded by Ms. Pérez and carried to recommend that the State Board of Education amend §115.27(b)(4)(C) to read:*

"identify decision-making skills that promote individual, family, and community mental health."

**MOTION AND VOTE:** *It was moved by Ms. Pérez, seconded by Mr. Cortez and carried to recommend that the State Board of Education amend §115.27(b)(5)(B) to read:*

"explain how adolescent brain development influences cognitive processing, emotions, and decision-making ~~identify how adverse childhood experiences such as abuse, neglect, and trauma can impact brain development~~;"

**MOTION AND VOTE:** *It was moved by Ms. Pérez, seconded by Mrs. Cargill and carried to recommend that the State Board of Education amend §115.27(b)(5) by adding a new student expectation as follows:*

"Discuss the influence of childhood trauma and how to recognize, process, and overcome negative events"

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich, seconded by Mrs. Cargill and carried to recommend that the State Board of Education strike §115.27(b)(7)(A).*

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich, seconded by Mr. Maynard and carried to recommend that the State Board of Education amend §115.27(b)(7)(E) to read:*

"~~explain ways to use dietary information to help self and others~~ identify and practice strategies for choosing healthy foods and beverages in diverse social environments, including at home, school, and dining out"

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich, seconded by Mr. Mercer and carried to recommend that the State Board of Education amend §115.27(b)(10)(A) to read:*

"analyze the impact of moderate physical activity and healthy dietary practices in the prevention of obesity, heart disease, and diabetes"

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich, seconded by Mr. Mercer and carried to recommend that the State Board of Education amend §115.27(b)(10)(B) to read:*

"analyze risk factors that may lead to the development of chronic conditions and formulate strategies to reduce the likelihood of developing chronic conditions;"

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich, seconded by Mr. Mercer and carried to recommend that the State Board of Education amend §115.27(b)(10)(D) to read:*

"investigate and compare the differences in preparing and serving fresh food versus serving ready-prepared, processed foods ~~safety concerns related to physical activity, food, and beverages"~~

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich, seconded by Mrs. Cargill and carried to recommend that the State Board of Education amend §115.27(b)(12)(A) to read:*

"analyze strategies for and the benefits of avoiding violence, gangs, weapons, ~~drugs~~, and human trafficking"

**MOTION AND VOTE:** *It was moved by Mrs. Cargill, seconded by Mr. Mercer and carried to recommend that the State Board of Education add a new §115.26(b)(13)(E) and §115.27(b)(13)(D) to read:*

"identify how technology is used to recruit or manipulate potential victims of sex trafficking"

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich, seconded by Ms. Hardy and carried to recommend that the State Board of Education amend §115.27(b)(14)(B) to read:*

"analyze how exposure to family violence can influence ~~influences~~ behavior"

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich, seconded by Ms. Hardy and carried to recommend that the State Board of Education strike §115.27(b)(17)(B).*

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich, seconded by Ms. Hardy and carried to recommend that the State Board of Education strike §115.27(b)(17)(D).*

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich, seconded by Ms. Hardy and carried to recommend that the State Board of Education amend §115.27(b)(18)(A) to read:*

"examine the effects and role of peer influence in ~~pressure on~~ decision making and problem solving regarding the use and misuse of alcohol, tobacco, and other drugs"

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich, seconded by Mr. Mercer and carried to recommend that the State Board of Education strike §115.27(b)(18)(C).*

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich, seconded by Ms. Hardy and carried to recommend that the State Board of Education strike §115.27(b)(19)(A).*

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich, seconded by Ms. Hardy and carried to recommend that the State Board of Education amend §115.27(b)(19)(B) to read:*

"Develop and apply strategies in various scenarios, including demonstrating refusal skills, for avoiding alcohol, tobacco, and other drugs; and"

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich, seconded by Ms. Hardy and carried to recommend that the State Board of Education strike §115.27(b)(19)(C).*

**MOTION AND VOTE:** *It was moved by Mr. Cortez, seconded by Ms. Perez-Diaz and carried to recommend that the State Board of Education add new "§115.27(b)(20)(H).*

"define and differentiate between sexual orientation and gender identity"

**MOTION AND VOTE:** *It was moved by Mr. Cortez and seconded by Ms. Perez-Diaz to recommend that the State Board of Education add new "§115.27(b)(20)(H) to read:*

"define and differentiate between sexual orientation and gender identity"

*The motion failed.*

**MOTION AND VOTE:** *It was moved by Mr. Cortez and seconded by Dr. Robinson to recommend that the State Board of Education add new "§115.27(b)(20)(H) to read:*

"explain the importance of treating all people with dignity and respect regardless of their sexual orientation or gender identity"

*The motion failed.*

**MOTION AND VOTE:** *It was moved by Mr. Rowley, seconded by Ms. Hardy and carried to recommend that the State Board of Education strike the term "committed" and add "legally recognized" §115.26(b)(20)(F), §115.27(b)(20)(G), §115.28(b)(20)(F). The motion failed.*

**MOTION AND VOTE:** *It was moved by Mrs. Little, seconded by Ms. Hardy and carried to recommend that the State Board of Education strike the term "committed relationships" from §115.26(b)(20)(F), §115.27(b)(20)(G), §115.28(b)(20)(F).*

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich, seconded by Ms. Hardy and carried to recommend that the State Board of Education amend §115.26(b)(21)(E), §115.27(b)(21)(F) and §115.28(b)(21)(F) to read:*

"describe how a healthy sense of self and making and respecting decisions regarding ~~can lead to~~ safe boundaries and limits ~~and~~ promote healthy dating or romantic relationships"

**MOTION AND VOTE:** *It was moved by Mr. Mercer, seconded by Ms. Hardy and carried to recommend that the State Board of Education amend §115.27(b)(21)(H) to read:*

"demonstrate how refusal skills can be used to set and reinforce limits and boundaries to avoid behaviors that increase sexual risk"

**MOTION AND VOTE:** *It was moved by Mrs. Cargill, seconded by Mr. Cortez and carried to recommend that the State Board of Education amend §115.27(b)(21)(D) to read:*

"identify protective strategies for avoiding unsafe situations that heighten the risk of sexual harassment, sexual abuse, sexual assault, sex trafficking, and teen dating violence"

**MOTION AND VOTE:** *It was moved by Mrs. Cargill, seconded by Mr. Cortez and carried to recommend that the State Board of Education amend §115.27(b)(21)(E) to read:*

"explain the importance of reporting to a parent or trusted adult sexual harassment, sexual abuse, sexual assault, sex trafficking, and dating violence involving self or others"

**MOTION AND VOTE:** *It was moved by Ms. Perez-Diaz, seconded by Mr. Cortez and carried to recommend that the State Board of Education strike §115.27(b)(22)(I) to read:*

"define the emotional changes that may occur during and after pregnancy ~~related and~~ including postpartum ~~mood disorders~~ depression, and discuss ~~ways to~~ resources for ~~seek help and~~ support and treatment"

**MOTION AND VOTE:** *It was moved by Mrs. Cargill, seconded by Mr. Mercer and carried to recommend that the State Board of Education strike §115.27(b)(22)(G).*

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich, seconded by Mrs. Little and carried to recommend that the State Board of Education strike §115.27(b)(22)(A).*

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich, seconded by Mrs. Little and carried to recommend that the State Board of Education strike §115.27(b)(22)(B).*

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich, seconded by Mrs. Cargill and carried to recommend that the State Board of Education amend §115.27(b)(22)(C) to read:*

"compare and contrast the physical, hormonal, and emotional changes in males and females that occur during puberty and adolescence"

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich, seconded by Mr. Mercer and carried to recommend that the State Board of Education amend §115.27(b)(22)(H) to read:*

"describe the importance of telling a parent or trusted adult, obtaining early pregnancy testing, and seeking prenatal care if signs of pregnancy occur; and"

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich, seconded by Mrs. Cargill and carried to recommend that the State Board of Education amend §115.27(b)(23)(B) to read:*
"explain the short- and long-term educational, financial, and social impacts of pregnancy on teen parents, the child, families, and society"

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich, seconded by Mrs. Cargill and carried to recommend that the State Board of Education strike §115.27(b)(23)(C).*

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich, seconded by Mrs. Cargill and carried to recommend that the State Board of Education amend §115.27(b)(23)(D) to read:*

"identify the difference ~~differences~~ between bacterial and viral sexually transmitted diseases (STDs) and sexually transmitted infections (STIs), including long-term or lifetime effects such as infertility~~,~~ and, cancer~~, and sexually transmitted diseases (STDs)~~"

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich and carried to recommend that the State Board of Education add "STD" before "STI" in §115.27(b)(23)(E), (F), and (G).*

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich, seconded by Mr. Mercer and carried to recommend that the State Board of Education amend §115.27(b)(23)(H) to read:*

"identify community resources, and a minor's right to consent under certain circumstances, and the importance of parent or trusted adult support for STD and STI testing and treatment"

**MOTION AND VOTE:** *It was moved by Mrs. Little, seconded by Mr. Rowley, and carried to recommend that the State Board of Education amend §115.27(b)(23)(E) and §115.38(b)(23)(D) to read:*
"describe various modes of transmission of STDs and STIs, including skin-to-skin contact, and the exchange of bodily fluids through sexual contact ~~oral sex, vaginal sex, and anal sex~~"

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich, seconded by Ms. Hardy and carried to recommend that the State Board of Education amend §115.27(b)(23)(J) to read:*

"identify support from parents and trusted adults to be abstinent from sexual activity and create strategies for building peer support to be abstinent ~~communicate the importance of practicing abstinence and seeking support from parents, trusted adults, and peers to identify ways one can show they care for a person that do not include sexual activity~~"

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich and carried to recommend that the State Board of Education amend §115.27(b)(23)(L) to read:*

"analyze the effectiveness and the risks and failure rates (human-use reality rates) of condoms and other contraceptive methods in the prevention of STDs, STIs and pregnancy"

**MOTION AND VOTE:** *It was moved by Mrs. Bahorich, seconded by Mrs. Cargill and carried to recommend that the State Board of Education amend §115.27(b)(23)(N) to read:*

*"research and explain the ~~potential~~ benefits of abstinence from sexual activity such as increased self-esteem, self-confidence, and student academic achievement"*

**MOTION AND VOTE:** *It was moved by Mr. Mercer, seconded by Mrs. Cargill, and carried to recommend that the State Board of Education amend §115.27(b)(23)(P) and §115.28(b)(23)(O) to read:*

"describe legal implications regarding sexual activity as it relates to minor persons, including legal age of consent, ~~to engage in sexual activity with another person~~ statutory rape, ~~and~~ aggravated sexual assault, sexual assault, and indecency with a child ~~if the child is under 14 years of age regardless of consent~~; and"

**MOTION AND VOTE:** *It was moved by Mr. Maynard, seconded by Mrs. Cargill, and carried to recommend that the State Board of Education amend §115.27(b)(6)(E) to read:*

"discuss the ~~warning signs and~~ protective factors of suicide identified by the Centers for Disease Control and Prevention (CDC) ~~and the importance of telling a parent or trusted adult if one observes the warning signs in self or others~~;"

Dr. Ellis adjourned the meeting at 11:18 p.m.