

MOTION AND VOTE: *It was moved by Mrs. Dunbar and seconded by Mr. Mercer to amend the motion to adopt the proposed revisions by replacing the proposed language found in 3(A) with the language in the original 3(A) in the existing Texas Essential Knowledge and Skills for Science, for grades 3 and up. The motion failed, with 7 members voting Aye and 7 members voting No, as follows:*

<u>Aye:</u>	Mr. Bradley	Mrs. Lowe
	Mrs. Cargill	Dr. McLeroy
	Mrs. Dunbar	Mr. Mercer
	Ms. Leo	

<u>No:</u>	Mr. Agosto	Ms. Hardy
	Mr. Allen	Mrs. Knight
	Mrs. Berlanga	Mrs. Miller
	Mr. Craig	

(Mr. Nuñez was absent for the vote.)

MOTION AND VOTE: *It was moved by Mrs. Dunbar to amend the motion to adopt the proposed revisions by replacing the proposed language found in (3)(A) for grades 3 and up, with “analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, by examining scientific evidence, supportive or not supportive, of those explanations.” The motion failed, with 7 members voting Aye and 8 members voting No, as follows:*

<u>Aye:</u>	Mr. Bradley	Mrs. Lowe
	Mrs. Cargill	Dr. McLeroy
	Mrs. Dunbar	Mr. Mercer
	Ms. Leo	

<u>No:</u>	Mr. Agosto	Ms. Hardy
	Mr. Allen	Mrs. Knight
	Mrs. Berlanga	Mrs. Miller
	Mr. Craig	Mr. Nuñez

MOTION AND VOTE: *It was moved by Mrs. Cargill to amend the motion to adopt the proposed revisions by amending the proposed language found in (4) Earth and Space Science to read:*

(4) Earth in space and time. The student knows how Earth-based and space-based astronomical observations reveal differing theories about the structure, scale, composition, origin, and history of the universe. The student is expected to:

The motion carried, with 8 members voting Aye and 7 members voting No, as follows:

<u>Aye:</u>	<i>Mr. Bradley</i>	<i>Ms. Leo</i>
	<i>Mrs. Cargill</i>	<i>Mrs. Lowe</i>
	<i>Mrs. Dunbar</i>	<i>Dr. McLeroy</i>
	<i>Ms. Hardy</i>	<i>Mr. Mercer</i>

<u>No:</u>	<i>Mr. Agosto</i>	<i>Mrs. Knight</i>
	<i>Mr. Allen</i>	<i>Mrs. Miller</i>
	<i>Mrs. Berlanga</i>	<i>Mr. Nuñez</i>
	<i>Mr. Craig</i>	

MOTION AND VOTE: *It was moved by Mrs. Cargill and seconded by Mrs. Dunbar to amend the motion to adopt the proposed revisions by replacing the proposed language found in (4)(A) Earth and Space Science with:*

(4)(A) understand scientific theories for the formation of the universe:

The motion failed, with 7 members voting Aye, 7 members voting No and 1 member Abstaining, as follows:

<u>Aye:</u>	<i>Mr. Bradley</i>	<i>Mrs. Lowe</i>
	<i>Mrs. Cargill</i>	<i>Dr. McLeroy</i>
	<i>Mrs. Dunbar</i>	<i>Mr. Mercer</i>
	<i>Ms. Leo</i>	

<u>No:</u>	<i>Mr. Agosto</i>	<i>Ms. Hardy</i>
	<i>Mr. Allen</i>	<i>Mrs. Knight</i>
	<i>Mrs. Berlanga</i>	<i>Mr. Nuñez</i>
	<i>Mr. Craig</i>	

<u>Abstain:</u>	<i>Mrs. Miller</i>
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MOTION AND VOTE: *It was moved by Mrs. Cargill to amend the motion to adopt the proposed revisions by amending the proposed language found in (4)(C) of Earth and Space Science to read:*

(4)(C) investigate the process by which a supernova is thought to lead to the formation of successive generation stars and planets.

The motion failed, with 7 members voting Aye, 7 members voting No, and 1 member Abstaining, as follows:

<u>Aye:</u>	Mr. Bradley	Mrs. Lowe
	Mrs. Cargill	Dr. McLeroy
	Mrs. Dunbar	Mr. Mercer
	Ms. Leo	

<u>No:</u>	Mr. Agosto	Ms. Hardy
	Mr. Allen	Mrs. Knight
	Mrs. Berlanga	Mr. Nuñez
	Mr. Craig	

Abstain: Mrs. Miller

MOTION AND VOTE: *It was moved by Mrs. Cargill to amend the motion to adopt the proposed revisions by amending the proposed language found in (5) of Earth and Space Science to read:*

*(5) **Earth in space and time.** The student understands the solar nebular accretionary disk model. The student is expected to:*

The motion carried, with 8 members voting Aye, 6 members voting No, and 1 member Abstaining, as follows:

<u>Aye:</u>	Mr. Bradley	Ms. Leo
	Mrs. Cargill	Mrs. Lowe
	Mrs. Dunbar	Dr. McLeroy
	Ms. Hardy	Mr. Mercer

<u>No:</u>	Mr. Agosto	Mr. Craig
	Mr. Allen	Mrs. Knight
	Mrs. Berlanga	Mr. Nuñez

Abstain: Mrs. Miller

MOTION AND VOTE: *It was moved by Mrs. Cargill to amend the motion to adopt the proposed revisions by amending the proposed language found in (5)(A) of Earth and Space Science to read:*

(5)(A) analyze how gravitational condensation of solar nebular gas and dust is thought to lead to the accretion of planetesimals and protoplanets;

The motion failed, with 7 members voting Aye and 8 members voting No, as follows:

<u>Aye:</u>	Mr. Bradley	Mrs. Lowe
	Mrs. Cargill	Dr. McLeroy
	Mrs. Dunbar	Mr. Mercer
	Ms. Leo	

<u>No:</u>	Mr. Agosto	Ms. Hardy
	Mr. Allen	Mrs. Knight
	Mrs. Berlanga	Mrs. Miller
	Mr. Craig	Mr. Nuñez

MOTION AND VOTE: *It was moved by Mrs. Cargill to amend the motion to adopt the proposed revisions by amending the proposed language found in (5)(B) of Earth and Space Science to read:*

(5)(B) investigate sources of heat, including kinetic heat of impact accretion, gravitational compression, and radioactive decay, which are thought to allow protoplanet differentiation into layers;

The motion carried, with 8 members voting Aye and 7 members voting No, as follows:

<u>Aye:</u>	Mr. Bradley	Ms. Leo
	Mrs. Cargill	Mrs. Lowe
	Mrs. Dunbar	Dr. McLeroy
	Ms. Hardy	Mr. Mercer

<u>No:</u>	Mr. Agosto	Mrs. Knight
	Mr. Allen	Mrs. Miller
	Mrs. Berlanga	Mr. Nuñez
	Mr. Craig	

MOTION AND VOTE: *It was moved by Mrs. Cargill to amend the motion to adopt the proposed revisions by amending the proposed language found in (6)(A) of Earth and Space Science to read:*

(6)(A) evaluate evidence for the changes of Earth's atmosphere that are thought to have occurred;

The motion failed, with 7 members voting Aye, 7 members voting No, and 1 member Abstaining, as follows:

<u>Aye:</u>	Mr. Bradley	Mrs. Lowe
	Mrs. Cargill	Dr. McLeroy
	Mrs. Dunbar	Mr. Mercer
	Ms. Leo	

<u>No:</u>	Mr. Agosto	Ms. Knight
	Mr. Allen	Mrs. Miller
	Mrs. Berlanga	Mr. Nuñez
	Mr. Craig	

<u>Abstain:</u>	Ms. Hardy
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MOTION AND VOTE: *It was moved by Mrs. Cargill to amend the motion to adopt the proposed revisions by amending the proposed language found in (6)(B) of Earth and Space Science to read:*

(6)(B) evaluate the evidence that volcanic outgassing and the impact of water-bearing comets have played a major role in developing Earth's atmosphere and hydrosphere;

The motion failed, with 7 members voting Aye, 7 members voting No, and 1 member Abstaining, as follows:

<u>Aye:</u>	Mr. Bradley	Mrs. Lowe
	Mrs. Cargill	Dr. McLeroy
	Mrs. Dunbar	Mr. Mercer
	Ms. Leo	

<u>No:</u>	Mr. Agosto	Ms. Knight
	Mr. Allen	Mrs. Miller
	Mrs. Berlanga	Mr. Nuñez
	Mr. Craig	

<u>Abstain:</u>	Ms. Hardy
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MOTION AND VOTE: *It was moved by Mrs. Cargill to amend the motion to adopt the proposed revisions by amending the proposed language found in (6)(D) of Earth and Space Science to read:*

(6)(D) evaluate the evidence that Earth's cooling led to tectonic activity, resulting in continents and ocean basins.

The motion carried, with 8 members voting Aye, 6 members voting No, and 1 member Abstaining, as follows:

<u>Aye:</u>	<i>Mr. Bradley</i>	<i>Ms. Leo</i>
	<i>Mrs. Cargill</i>	<i>Mrs. Lowe</i>
	<i>Mrs. Dunbar</i>	<i>Dr. McLeroy</i>
	<i>Ms. Hardy</i>	<i>Mr. Mercer</i>
<u>No:</u>	<i>Mr. Agosto</i>	<i>Mr. Craig</i>
	<i>Mr. Allen</i>	<i>Mrs. Knight</i>
	<i>Mrs. Berlanga</i>	<i>Mr. Nuñez</i>
<u>Abstain:</u>	<i>Mrs. Miller</i>	

MOTION AND VOTE: *It was moved by Mrs. Cargill to amend the motion to adopt the proposed revisions by amending the proposed language found in (7)(B) of Earth and Space Science to read:*

(7)(B) evaluate how radiometric dating methods can be used to calculate the ages of igneous rocks from Earth and Moon, and meteorites; and

The motion failed, with 7 members voting Aye, 7 members voting No, and 1 member Abstaining, as follows:

<u>Aye:</u>	<i>Mr. Bradley</i>	<i>Mrs. Lowe</i>
	<i>Mrs. Cargill</i>	<i>Dr. McLeroy</i>
	<i>Mrs. Dunbar</i>	<i>Mr. Mercer</i>
	<i>Ms. Leo</i>	
<u>No:</u>	<i>Mr. Agosto</i>	<i>Ms. Hardy</i>
	<i>Mr. Allen</i>	<i>Mrs. Knight</i>
	<i>Mrs. Berlanga</i>	<i>Mr. Nuñez</i>
	<i>Mr. Craig</i>	
<u>Abstain:</u>	<i>Mrs. Miller</i>	

MOTION AND VOTE: *It was moved by Mrs. Cargill to amend the motion to adopt the proposed revisions by amending the proposed language found in (8) of Earth and Space Science to read:*

(8) The student knows that fossils are used as evidence for geological and biological evolution.

The motion failed, with 7 members voting Aye, 7 members voting No, and 1 member Abstaining, as follows:

<u>Aye:</u>	<i>Mr. Bradley</i>	<i>Mrs. Lowe</i>
	<i>Mrs. Cargill</i>	<i>Dr. McLeroy</i>
	<i>Mrs. Dunbar</i>	<i>Mr. Mercer</i>
	<i>Ms. Leo</i>	

<u>No:</u>	<i>Mr. Agosto</i>	<i>Ms. Hardy</i>
	<i>Mr. Allen</i>	<i>Mrs. Knight</i>
	<i>Mrs. Berlanga</i>	<i>Mr. Nuñez</i>
	<i>Mr. Craig</i>	

<u>Abstain:</u>	<i>Mrs. Miller</i>	
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MOTION AND VOTE: *It was moved by Mrs. Cargill to amend the motion to adopt the proposed revisions by amending the proposed language found in (8)(A) of Earth and Space Science to read:*

(8)(A) evaluate a variety of fossil types, proposed transitional fossils, fossil lineages, and significant fossil deposits and assess the arguments for and against universal common descent in light of this fossil evidence;

The motion failed, with 7 members voting Aye, 6 members voting No, and 2 members Abstaining, as follows:

<u>Aye:</u>	<i>Mr. Bradley</i>	<i>Mrs. Lowe</i>
	<i>Mrs. Cargill</i>	<i>Dr. McLeroy</i>
	<i>Mrs. Dunbar</i>	<i>Mr. Mercer</i>
	<i>Ms. Leo</i>	

<u>No:</u>	<i>Mr. Agosto</i>	<i>Mr. Craig</i>
	<i>Mr. Allen</i>	<i>Mrs. Knight</i>
	<i>Mrs. Berlanga</i>	<i>Mr. Nuñez</i>

<u>Abstain:</u>	<i>Ms. Hardy</i>	<i>Mrs. Miller</i>
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MOTION AND VOTE: *It was moved by Mrs. Cargill to amend the motion to adopt the proposed revisions by amending the proposed language found in (13)(F) of Earth and Space Science to read:*

(13)(F) evaluate scientific hypotheses for the origin of life by abiotic chemical processes in an aqueous environment in light of the complexity of living systems;

The motion failed, with 7 members voting Aye, 7 members voting No, and 1 member Abstaining, as follows:

<u>Aye:</u>	<i>Mr. Bradley</i>	<i>Mrs. Lowe</i>
	<i>Mrs. Cargill</i>	<i>Dr. McLeroy</i>
	<i>Mrs. Dunbar</i>	<i>Mr. Mercer</i>
	<i>Ms. Leo</i>	

<u>No:</u>	<i>Mr. Agosto</i>	<i>Ms. Hardy</i>
	<i>Mr. Allen</i>	<i>Mrs. Knight</i>
	<i>Mrs. Berlanga</i>	<i>Mr. Nuñez</i>
	<i>Mr. Craig</i>	

<u>Abstain:</u>	<i>Mrs. Miller</i>	
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MOTION AND VOTE: *It was moved by Ms. Leo and seconded by Mrs. Cargill to amend the motion to adopt the proposed revisions by amending the proposed language found in (7)(A) of High School Biology by replacing “identify” with “analyze and evaluate” to read:*

(7)(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;

The motion carried, with 8 members voting Aye, 3 members voting No, and 2 member Abstaining, as follows:

<u>Aye:</u>	<i>Mrs. Cargill</i>	<i>Mrs. Lowe</i>
	<i>Mrs. Dunbar</i>	<i>Dr. McLeroy</i>
	<i>Mrs. Knight</i>	<i>Mr. Mercer</i>
	<i>Ms. Leo</i>	<i>Mrs. Miller</i>

<u>No:</u>	<i>Mrs. Berlanga</i>	<i>Mr. Nuñez</i>
	<i>Mr. Craig</i>	

<u>Abstain:</u>	<i>Mr. Allen</i>	<i>Ms. Hardy</i>
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(Mr. Agosto and Mr. Bradley were absent for the vote.)

MOTION AND VOTE: *It was moved by Ms. Leo to amend the motion to adopt the proposed revisions by amending the proposed language found in (7)(B) of High School Biology by replacing “recognize” with “analyze and evaluate how” to read:*

(7)(B) analyze and evaluate how natural selection produces change in populations, not individuals;

The motion carried, with 11 members voting Aye, 2 members voting No, and 1 member Abstaining, as follows:

<u>Aye:</u>	Mr. Bradley	Ms. Leo
	Mrs. Cargill	Mrs. Lowe
	Mr. Craig	Dr. McLeroy
	Mrs. Dunbar	Mr. Mercer
	Ms. Hardy	Mrs. Miller
	Mrs. Knight	

<u>No:</u>	Mrs. Berlanga	Mr. Nuñez
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<u>Abstain:</u>	Mr. Allen	
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(Mr. Agosto was absent for the vote.)

MOTION AND VOTE: *It was moved by Ms. Leo to amend the motion to adopt the proposed revisions by amending the proposed language found in (7)(C) of High School Biology by replacing “describe” with “analyze and evaluate how” to read:*

(7)(C) 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 results in differential reproductive success;

The motion carried, with 10 members voting Aye and 3 members voting No, as follows:

<u>Aye:</u>	Mr. Bradley	Ms. Leo
	Mrs. Cargill	Mrs. Lowe
	Mr. Craig	Dr. McLeroy
	Mrs. Dunbar	Mr. Mercer
	Ms. Hardy	Mrs. Miller

<u>No:</u>	Mr. Allen	Mr. Nuñez
	Mrs. Berlanga	

Mrs. Knight did not vote.

(Mr. Agosto was absent for the vote.)

MOTION AND VOTE: *It was moved by Ms. Leo to amend the motion to adopt the proposed revisions by amending the proposed language found in (7)(D) of High School Biology by replacing “recognize” with “analyze and evaluate” to read:*

(7)(D) analyze and evaluate the relationship of natural selection to adaptation, and to the development of diversity in and among species; and

The motion carried, with 11 members voting Aye, 2 members voting No, and 1 member Abstaining, as follows:

<u>Aye:</u>	<i>Mr. Bradley</i>	<i>Ms. Leo</i>
	<i>Mrs. Cargill</i>	<i>Mrs. Lowe</i>
	<i>Mr. Craig</i>	<i>Dr. McLeroy</i>
	<i>Mrs. Dunbar</i>	<i>Mr. Mercer</i>
	<i>Ms. Hardy</i>	<i>Mrs. Miller</i>
	<i>Mrs. Knight</i>	

<u>No:</u>	<i>Mrs. Berlanga</i>	<i>Mr. Nuñez</i>
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<u>Abstain:</u>	<i>Mr. Allen</i>	
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(Mr. Agosto was absent for the vote.)

MOTION AND VOTE: *It was moved by Ms. Leo to amend the motion to adopt the proposed revisions by amending the proposed language found in (7)(E) of High School Biology by replacing “recognize” with “analyze and evaluate” to read:*

(7) (E) analyze and evaluate the effects of other evolutionary mechanisms including genetic drift, gene flow, mutation, and recombination.

The motion carried, with 12 members voting Aye and 2 members voting No, as follows:

<u>Aye:</u>	<i>Mr. Allen</i>	<i>Mrs. Knight</i>
	<i>Mr. Bradley</i>	<i>Ms. Leo</i>
	<i>Mrs. Cargill</i>	<i>Mrs. Lowe</i>
	<i>Mr. Craig</i>	<i>Dr. McLeroy</i>
	<i>Mrs. Dunbar</i>	<i>Mr. Mercer</i>
	<i>Ms. Hardy</i>	<i>Mrs. Miller</i>

<u>No:</u>	<i>Mrs. Berlanga</i>	<i>Mr. Nuñez</i>
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(Mr. Agosto was absent for the vote.)

MOTION AND VOTE: *It was moved by Dr. McLeroy to amend the motion to adopt the proposed revisions by adding the following language to (2) in all High School courses:*

(2)(A) know the definition of science and understand it has limitations, as specified in subsection (b)(2) of this section

The motion carried, with 10 members voting Aye and 3 members voting No, as follows:

<u>Aye:</u>	Mr. Agosto	Ms. Hardy
	Mr. Allen	Mrs. Knight
	Mr. Bradley	Ms. Lowe
	Mrs. Cargill	Dr. McLeroy
	Mrs. Dunbar	Mr. Mercer

<u>No:</u>	Mrs. Berlanga	Mr. Nuñez
	Mr. Craig	

Mrs. Miller did not vote.

(Ms. Leo was absent for the vote.)

MOTION AND VOTE: *It was moved by Dr. McLeroy and seconded by Mrs. Cargill to amend the motion to adopt the proposed revisions by adding the following language to (7) in High School Biology:*

(7) (B) analyze and evaluate the sufficiency or insufficiency of common ancestry to explain the sudden appearance, stasis, and sequential nature of groups in the fossil record;

The motion carried, with 9 members voting Aye and 6 members voting No, as follows:

<u>Aye:</u>	Mr. Allen	Mrs. Lowe
	Mr. Bradley	Dr. McLeroy
	Mrs. Cargill	Mr. Mercer
	Mrs. Dunbar	Mrs. Miller
	Ms. Leo	

<u>No:</u>	Mr. Agosto	Ms. Hardy
	Mrs. Berlanga	Mrs. Knight
	Mr. Craig	Mr. Nuñez

VOTE: *A vote was taken on the motion to recommend that the State Board of Education adopt the proposed revisions to 19 TAC Chapter 112, Texas Essential Knowledge and Skills for Science, Subchapter A, Elementary, Subchapter B, Middle School, and Subchapter C, High School, as amended. The motion carried unanimously.*