CSCOPE SCIENCE TEKS REVIEW
Phase I Final Report

November 2012

Prepared for

Education Service Center Region XIII

Prepared by

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TO THE GOVERNING BOARD OF THE TEXAS EDUCATION SERVICE CENTER CURRICULUM COLLABORATIVE:

This summary describes the process undertaken by the Texas Education Service Center Curriculum Collaborative (TESCCC) through its fiscal agent, Education Service Center Region XIII (Region 13), to have an external evaluation company conduct a CSCOPE TEKS Review, beginning with science in summer/fall 2012. Resources for Learning, LLC, (RFL) was selected as the contractor to design and oversee the review through a Request for Proposal (RFP) process initiated by Region 13 in March 2012. The complete review process has two phases, the first phase of which is described in this document. Phase II, which involves lesson review, will begin in January 2013.

Phase I Purpose

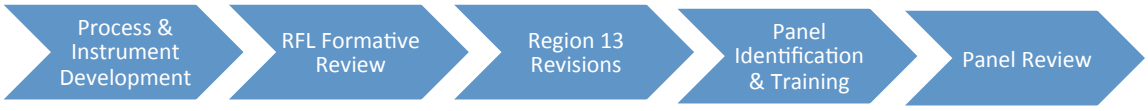
The overall purpose of Phase I of the project was to review the extent of coverage of the Texas Essential Knowledge and Skills (TEKS) and the consistency of TEKS coverage across key CSCOPE science curricular documents. This review was conducted for each grade level and course. The process provided both internal and external review of the TEKS coverage across the CSCOPE science curricular documents, excluding the lessons. Grade levels and courses included were Kindergarten, Grades 1 through 8, Integrated Physics and Chemistry (IPC), Biology, Environmental Systems, Chemistry, and Physics. This summary report includes only activities from Phase I work.

The documents for review included:

- **Year at a Glance (YAG)**
- **Vertical Alignment Documents (VAD)**
- **TEKS Verification Documents (TVD)**
- **Instructional Focus Documents (IFD)**

Phase I Review

Key components of the review included development of the procedures of the review process and instruments, formative RFL review of TEKS coverage and agreement across documents, Region 13 revisions, external panel identification and training, and panel review of TEKS coverage and agreement across curricular documents.



Process and Instrument Development

To develop the review approach, RFL met with Region 13 staff at the beginning of the project to refine the proposed process to ensure alignment with review goals and to clarify timelines and logistics for accessing the curricular documents. Specific issues for consideration in designing the review process included the following:

- Because Student Expectations (SEs) may be partially addressed in one unit (identified by strikethroughs of part of the SE statements) and completed in another unit, RFL included a step in the review process for documenting strikethroughs and introducing additional quality checks for including initially eliminated elements to ensure complete coverage.
- Because CSCOPE curricular documents undergo continuous review and revision, it was determined that the curricular documents to be reviewed would be posted to a shared secure server and the review would apply to the posted documents.
- CSCOPE provides documents to districts in 6-week and 9-week periods. This review included the 6-week version. When changes were necessary, Region 13 would make comparable revisions to 9-week documents.

RFL created matrices to guide the review process. The matrices documented cross-checking between:

- YAG and TVD,
- TVD and VAD, and
- YAG and IFD.

The matrices were used in the review process as part of the following processes.

- Ensure student expectations (SEs) with strikethroughs in an IFD were completed within the grade level/course.
- Compare the timing of SE presentation throughout documents to ensure consistency.
- Compare the Performance Indicator (PI) SEs to SEs within the IFD to ensure consistency.
- Ensure that the SE content was reflected in the Performance Indicator (PI) content.

Matrices were then summarized to provide overall grade-level descriptions of TEKS coverage and agreement across curricular documents. A sample Review Process Matrix and the Grade-Level Matrix are included as Exhibits 1 and 2.

RFL Formative Review

RFL conducted a review of the YAG, TVD, VAD, and IFD documents by grade level and course that included each step identified above. The results of the review were captured in grade level/course revision sheets that were submitted to Region 13 to guide the revision process. See Exhibit 3 for a sample Suggested Revision Sheet.

Region 13 Revision

Region 13 staff then evaluated each suggested revision and, as staff deemed appropriate, made changes to curricular documents, including the lessons in some cases. For example, if an SE was noted as partially complete across the grade level, completing the SE involved mapping the SE from the YAG, TVD, and IFD to the lesson to ensure consistency and appropriateness of content. This process involved extensive research and lesson development in the few cases where SE discrepancies were noted. It should be noted that RFL did not review lessons in Phase I.

Panel Identification and Training

After the formative review and revisions were completed, the process included another formal review of coverage by an external panel. The panel reviewed the curricular documents that included RFL-identified revisions as appropriate as well as other changes possibly introduced by the Region 13 continuous review cycle.

RFL developed a process to identify a pool of well-respected, experienced science educators and teacher leaders in their grade levels and subject areas to serve on the external review panel. In identifying potential panelists, RFL generally targeted potential candidates with teaching experience at each of the grade spans K-2, 3-5, 6-8 and the high school courses of IPC, Environmental Systems, Biology, Chemistry, and Physics.

To identify potential review panel members, RFL contacted the leaders of the relevant professional associations of Texas science teachers, including:

- Science Teachers Association of Texas
- Texas Science Education Leadership Association
- Texas Council of Elementary Science
- Texas Association of Biology Teachers
- Associated Chemistry Teachers of Science
- Texas Section, American Association of Physics Teachers

RFL asked these leaders to recommend potential panelists and distribute information about the opportunity through their membership. Through this process, RFL identified 28 candidates who then submitted applications and resumes. These candidates were ranked by level of expertise as well as

experience with curriculum writing and similar projects. Potential panelists were then screened to ensure they met the criteria and could complete the review.

The final selected review panel was comprised of six science educators who represented the range of grade levels/courses included in CSCOPE science and who also had the following qualifications:

- Advanced education degrees (master's or doctorate),
- More than five years teaching experience (and three panelists had experience in the 20- to 30-year range),
- Current or recent experience as science teachers and/or district science coordinators,
- Curriculum development experience, and
- Additional experience or credentials, including serving as a district instructional coach or lead teacher, being involved in state or national research or standards review processes, or receiving awards in science teaching.

Additionally, the panelists were selected to reflect a combination of educators with and without experience using the CSCOPE curriculum. Selected panelists submitted non-disclosure and subcontracting agreements defining the scope of the review and the stipend for participation. Each panelist was assigned to review multiple grades/courses (with the exception of physics). Grade-level bands/course combinations included: K-2, 3-5, 6-8, and biology and environmental systems, and chemistry and IPC.

RFL developed a webinar-based panelist training session that was conducted in September 2012. Panelists were provided a set of sample documents to preview for use in the training that included the review matrices and the YAG, TVD, VAD, and IFD for Grade 5. Trainers described the review process and necessary documentation, and panelists had an opportunity to practice the process on the Grade 5 documents. Panelists were then provided access to a secure server where the revised grade level/course documents were dated and posted for review.

Panel Review

Panelists accessed grade band/course documents, review matrices, and revision sheets through the secure server. Panelists were provided a one-month window to complete the review. RFL conducted multiple individual and group follow-up check-in e-mails with each panelist to address any concerns or questions.

Panelists recorded their findings on the Suggested Revisions form. Panelists were also expected to submit to RFL their Review Process Matrices. RFL carefully reviewed panelist findings and conferred with the panel members to confirm and check accuracy and agreement of findings.

Findings

The findings of this process are provided in summary statements and by grade level/course and detailed in Exhibit 4.

In Grade K, the CSCOPE YAG provided 100 percent (100%) coverage of the 31 Grade K science TEKS and SEs. Additionally, the YAG review indicated that 39 percent (39%) of the SEs were covered more than once. There was 97 percent (97%) agreement in timing of presentation of SEs between the YAG and TVD. One discrepancy between the YAG and TVD was identified. SE K.8.C appears on the TVD as a direct teach in the 6th six weeks, however, it does not appear on the YAG or in the appropriate IFD (Unit 9). There was 100 percent (100%) agreement between the YAG and VAD and the YAG and IFD. The SEs across the IFDs were 100 percent (100%) complete. Performance Indicator SEs were 100 percent (100%) in agreement with SEs covered within the IFDs, and the Performance Indicator content was 100 percent (100%) in agreement with the content of SEs.

In Grade 1, the CSCOPE YAG provided 100 percent (100%) coverage of the 33 Grade 1 science TEKS and SEs. Additionally, the YAG review indicated that 51 percent (51%) of the SEs were covered more than once. There was 97 percent (97%) agreement in timing of presentation of SEs between the YAG and TVD; one discrepancy between the YAG and TVD was identified. SE 1.2.B appears on the YAG in the 2nd six weeks (Unit 3) and Unit 3 IFD but does not appear on the TVD as a direct teach in the 2nd six weeks. There was 100 percent (100%) agreement between the YAG and VAD and the YAG and IFD. The SEs across the IFDs were 100 percent (100%) complete. Performance Indicator SEs were 100 percent (100%) in agreement with SEs covered within the IFDs, and the Performance Indicator content was 100 percent (100%) in agreement with the content of SEs.

In Grade 2, the CSCOPE YAG provided 100 percent (100%) coverage of the 35 Grade 2 science TEKS and SEs. Additionally, the YAG review indicated that 40 percent (40%) of the SEs were covered more than once. There was 94 percent (94%) agreement between the YAG and TVD, and 91 percent (91%) agreement between the YAG and IFD. Several discrepancies were identified. SE 2.2.A appears on the YAG and TVD for the 5th six weeks but does not appear in the appropriate unit (Unit 9); SE 2.4.B does not appear on the YAG for the 5th six weeks but appears as a direct teach on the TVD for the 5th six weeks and appears in the appropriate unit (Unit 9); SE 2.9.B appears on the YAG in the 5th six weeks but does not appear in the TVD or appropriate unit (Unit 9). There was 100 percent (100%) agreement of SEs between the YAG and VAD. The SEs across the IFDs were 100 percent (100%) complete. Performance Indicator SEs were 100 percent (100%) in agreement with SEs covered within the IFDs, and the Performance Indicator content was 100 percent (100%) in agreement with the content of SEs.

In Grade 3, the CSCOPE YAG provided 100 percent (100%) coverage of the 35 Grade 3 science TEKS and SEs. Additionally, the YAG review indicated 63 percent (63%) of the SEs were covered more than once. There was 100 percent (100%) agreement between the YAG and TVD, YAG and VAD, and YAG and IFD. The review of IFD SE completion indicated 97 percent (97%) of the SEs were covered across IFDs. One discrepancy was identified. SE 3.1.A was incomplete due to a strikethrough that was not completed in other IFDs for Grade 3. Performance Indicator SEs were 100 percent (100%) in agreement with SEs

covered within the IFDs, and the Performance Indicator content was 100 percent (100%) in agreement with the content of SEs.

In Grade 4, the CSCOPE YAG provided 100 percent (100%) coverage of the 32 Grade 4 science TEKS and SEs. Additionally, the YAG review indicated that 53 percent (53%) of the SEs were covered more than once. There was 97 percent (97%) agreement in timing of presentation of SEs between the YAG and TVD and YAG and IFD. One discrepancy was identified. SE 4.3.A was not included in the YAG for Unit 3 in the 3rd six weeks, but it is listed as a direct teach on the TVD in the 3rd six weeks and appears in the Unit 3 IFD. The SEs across the IFDs were 100 percent (100%) complete. Performance Indicator SEs were 100 percent (100%) in agreement with SEs covered within the IFDs, and the Performance Indicator content was 100 percent (100%) in agreement with the content of SEs.

In Grade 5, the CSCOPE YAG provided 100 percent (100%) coverage of the 38 Grade 5 science TEKS and SEs. Additionally, the YAG review indicated that 42 percent (42%) of the SEs were covered more than once. There was 100 percent (100%) agreement in timing of presentation of SEs between the YAG and TVD. There was also 100 percent (100%) agreement between the YAG and VAD. There was 97 percent (97%) agreement between the YAG and IFD. One discrepancy was identified. SE 5.2.G was included in the YAG for the 4th six weeks, but it did not appear in Unit 8 IFD. Additionally, 97 percent (97%) of the SEs were covered across the IFDs. SE 5.2.G was not completely covered across the IFDs due to a strikethrough not being introduced later. Performance Indicator SEs were 100 percent (100%) in agreement with SEs covered within the IFDs, and the Performance Indicator content was 100 percent (100%) in agreement with the content of SEs.

In Grade 6, the CSCOPE YAG provided 100 percent (100%) coverage of the 43 Grade 6 science TEKS and SEs. Additionally, the YAG review indicated that 26 percent (26%) of the SEs were covered more than once. There was 100 percent (100%) agreement between the YAG and TVD, YAG and VAD, and YAG and IFD. The SEs across the IFDs were 100 percent (100%) complete. Performance Indicator SEs were 100 percent (100%) aligned with SEs covered within the IFDs, and the Performance Indicator content was 100 percent (100%) aligned with the content of SEs.

In Grade 7, the CSCOPE YAG provided 100 percent (100%) coverage of the 44 Grade 7 science TEKS and SEs. Additionally, the YAG review indicated that 30 percent (30%) of the SEs were covered more than once. There was 100 percent (100%) agreement between the YAG and TVD, YAG and VAD, and YAG and IFD. The SEs across the IFDs were 100 percent (100%) complete. Performance Indicator SEs were 100 percent (100%) aligned with SEs covered within the IFDs, and the Performance Indicator content was 100 percent (100%) aligned with the content of SEs.

In Grade 8, the CSCOPE YAG provided 100 percent (100%) coverage of the 40 Grade 8 science TEKS and SEs. Additionally, the YAG review indicated that 38 percent (38%) of the SEs were covered more than once. There was 100 percent (100%) agreement between the YAG and TVD, YAG and VAD, and YAG and IFD. The SEs across the IFDs were 100 percent (100%) complete. Performance Indicator SEs were 100 percent (100%) aligned with SEs covered within the IFDs, and the Performance Indicator content was 100 percent (100%) aligned with the content of SEs.

In IPC, the CSCOPE YAG provided 100 percent (100%) coverage of the 40 IPC TEKS and SEs. Additionally, the YAG review indicated that 33 percent (33%) of the SEs were covered more than once. There was 100 percent (100%) agreement between the YAG and TVD, YAG and VAD, and YAG and IFD. The SEs across the IFDs were 100 percent (100%) complete. Performance Indicator SEs were 100 percent (100%) in agreement with SEs covered within the IFDs, and the Performance Indicator content was 100 percent (100%) in agreement with the content of SEs.

In biology, the CSCOPE YAG provided 100 percent (100%) coverage of the 58 biology TEKS and SEs. Additionally, the YAG review indicated that 59 percent (59%) of the SEs were covered more than once. There was 100 percent (100%) agreement between the YAG and TVD, YAG and VAD, and YAG and IFD. The SEs across the IFDs were 100 percent (100%) complete. Performance Indicator SEs were 100 percent (100%) in agreement with SEs covered within the IFDs, and the Performance Indicator content was 100 percent (100%) in agreement with the content of SEs.

In environmental systems, the CSCOPE YAG provided 100 percent (100%) coverage of the 59 environmental TEKS and SEs. Additionally, the YAG review indicated that 49 percent (49%) of the SEs were covered more than once. There was 100 percent (100%) agreement between the YAG and TVD, YAG and VAD, and YAG and IFD. The SEs across the IFDs were 100 percent (100%) complete. Performance Indicator SEs were 100 percent (100%) in agreement with SEs covered within the IFDs, and the Performance Indicator content was 100 percent (100%) in agreement with the content of SEs. However, a discrepancy between the YAG and TVD was identified that did not conflict with agreement ratings. Two content SEs were listed as on-going teaches in the TVD. No other content SEs were presented as on-going teaches in environmental systems or other science courses. Additionally, the IFDs for the associated units do not include the two SEs specified as on-going.

In chemistry, the CSCOPE YAG provided 100 percent (100%) coverage of the 61 chemistry TEKS and SEs. Additionally, the YAG review indicated that 33 percent (33%) of the SEs were covered more than once. There was 100 percent (100%) agreement between the YAG and TVD, YAG and VAD, and YAG and IFD. The SEs across the IFDs were 100 percent (100%) complete. Performance Indicator SEs were 100 percent (100%) in agreement with SEs covered within the IFDs, and the Performance Indicator content was 100 percent (100%) in agreement with the content of SEs.

In physics, the CSCOPE YAG provided 100 percent (100%) coverage of the 51 physics TEKS and SEs. Additionally, the YAG review indicated that 41 percent (41%) of the SEs were covered more than once. There was 98 percent (98%) agreement in timing of presentation of SEs between the YAG and TVD. One discrepancy was identified. SE P.2.C was listed on the TVD as a direct teach in the 6th six weeks but does not appear in the YAG in the appropriate units (Unit 12, 13, or 14 IFDs). Performance Indicator SEs were 100 percent (100%) in agreement with SEs covered within the IFDs, and the Performance Indicator content was 100 percent (100%) in agreement with the content of SEs.

Conclusions

Conclusions summarize findings across all 14 grade level/course review processes, which included 9 grade level (K-8) and 5 course reviews, and are presented by document reviewed.

YAG Review

The CSCOPE YAG review indicated 100 percent (100%) coverage of the 600 TEKS and SEs across the 14 grade levels and courses reviewed. Four of the 14 total grade level/course YAG reviews indicated that 50 percent (50%) or more of the TEKS and SEs were covered more than one time within the grade level/course.

YAG/TVD Comparison

Nine (9) of the grade level/course YAG/TVD comparisons indicated 100 percent (100%) agreement in timing of presentation of SEs between documents. Thirteen (13) of 14 grade level/course YAG/TVD comparisons indicated 97 percent (97%) or higher agreement in timing of presentation of SEs between documents. One YAG/TVD comparison indicated 94 percent (94%) agreement.

YAG/VAD Comparison

Considering all grade level/course comparisons of the YAG to the VAD, there was 100 percent (100%) agreement between documents across grade levels/courses.

YAG/IFD Comparison

Grade level/course comparisons of the YAG to the IFD indicated 100 percent (100%) agreement between documents for 11 of the 14 grade level/course reviews. For three grade level comparisons one showed 91 percent (91%) and two showed 97 percent (97%) agreement between documents considered.

IFD SE Completion

For all grade levels/courses reviewed, the SEs across the IFDs were 100 percent (100%) complete, with the exception of two grades where one discrepancy was identified in each grade level. In each of these cases, an SE included a strikethrough of content that was not subsequently covered in any of the IFDs that followed.

PI Review of Agreement and Content

Across all grade levels/courses reviewed, the SEs presented in the PIs were in 100 percent (100%) agreement with the SEs in the associated IFDs. Additionally, the PI content was in 100 percent (100%) agreement with the content stated in the associated SEs.

Commendations and Recommendations

Commendation: The TESCCC has produced science curriculum documents with consistently high TEKS coverage and agreement between and across documents during a compressed development phase for science due to implementation of the recently revised TEKS.

Considering the science YAGs, VADs, TVDs, and IFDs across nine (9) grade levels (K-8) and five (5) courses, reviewers found above 90 percent (90%) agreement for each comparison and coverage review. Additionally, with the exception of one grade, all comparisons indicated 97 percent (97%) agreement or higher. Given the amount of material included in the CSCOPE curricular documents, the TESCCC is commended for maintaining high consistency and high coverage in representing the TEKS and SEs within and across documents.

Recommendation: Due to the extensive nature of the Scientific Investigation and Reasoning TEKS, it is imperative that careful attention is paid to the strikethrough process. At some grade levels, the number of tools listed for conducting the scientific inquiry process exceeds 20. To that end, when tools are given strikethroughs based on the particular focus of the IFD units, steps must be taken to ensure that those particular tools are picked up in subsequent IFD units within the grade level. Failure to ensure that all of the tools have been utilized may result in incomplete coverage of TEKS. It is important to note that this process TEK (4A) is represented across grades K-8. This report is intended solely for the use of the Texas Education Service Center Curriculum Collaborative.

Sincerely,

Linda Wurzbach
President
Resources for Learning, LLC

Exhibit 1

Region 13 – CSCOPE Science
RFL Formative Review
Review Process

PROCEDURE	GRADE LEVEL/COURSE SUBJECT													
	Kdg	1st	2nd	3rd	4th	5th	6th	7th	8th	Bio	Chem	IPC	Env. Systems	Physics
Cross-check **YAG** with **TVM** by: a) providing tally marks on **TVM** to indicate how many times each standard appears in the **YAG**														
b) ensuring that the matrix is accurate by verifying that the SEs listed in the **YAG** are reflected in the correct SIX WEEKS on the **TVM**														
Compare the **TVM** with the **VAD** to make sure all SEs are included														
Cross-check the **YAG** with the **IFD** -verify that all of the SEs in each unit are included in the **IFD**														
Go through **IFD** and highlight all SEs with a strikethrough														
Go through the **IFD**s and check to see if the strikethroughs are covered in SEs found in subsequent units (note where the SE is completed or indicate if it was not completed)														
Check to make sure that each SE is consistently accurate throughout the **IFD**s														
Check Performance Indicators on **IFD** for: **a) Agreement** -By unit, list the standard cited in each Performance Indicator. -Verify that each standard is present within the main TEKS table of the IFD.														
b) Content -Identify key words and ensure agreement between Performance Indicators and TEKS														

Document Abbreviations

YAG = Year at a Glance	TVM = TEKS Verification Matrix	IFD= Instructional Focus Document	VAD= Vertical Alignment Document

Reviewer's Signature: _____ **Date:** _____

Exhibit 2

Region 13 – CSCOPE Science
RFL Formative Review
Grade Level Matrix

Kindergarten TEKS	YAG to TVM	YAG to TVM	TVM to VAD	YAG to IFD	IFD coverage of SEs	
	Counts	Yes/No	Yes/No	Yes/No	Partial/ Complete	note unit(s) where completed
	Procedure a	Procedure b				
(1) Scientific investigation and reasoning. The student conducts classroom and outdoor investigations following home and school safety procedures and uses environmentally appropriate and responsible practices. The student is expected to:						
(A) identify and demonstrate safe practices as described in the Texas Safety Standards during classroom and outdoor investigations, including wearing safety goggles, washing hands, and using materials appropriately;						
(B) discuss the importance of safe practices to keep self and others safe and healthy; and						
(C) demonstrate how to use, conserve, and dispose of natural resources and materials such as conserving water and reusing or recycling paper, plastic, and metal.						
(2) Scientific investigation and reasoning. The student develops abilities to ask questions and seek answers in classroom and outdoor investigations. The student is expected to:						
(A) ask questions about organisms, objects, and events observed in the natural world;						
(B) plan and conduct simple descriptive investigations such as ways objects move;						
(C) collect data and make observations using simple equipment such as hand lenses, primary balances, and non-standard measurement tools;						
(D) record and organize data and observations using pictures, numbers, and words; and						
(E) communicate observations with others about simple descriptive investigations.						
(3) Scientific investigation and reasoning. The student knows that information and critical thinking are used in scientific problem solving. The student is expected to:						
(A) identify and explain a problem such as the impact of littering on the playground and propose a solution in his/her own words;						

Exhibit 2

Region 13 – CSCOPE Science
RFL Formative Review
Grade Level Matrix

(B) make predictions based on observable patterns in nature such as the shapes of leaves; and						
(C) explore that scientists investigate different things in the natural world and use tools to help in their investigations.						
(4) Scientific investigation and reasoning. The student uses age-appropriate tools and models to investigate the natural world. The student is expected to:						
(A) collect information using tools, including computers, hand lenses, primary balances, cups, bowls, magnets, collecting nets, and notebooks; timing devices, including clocks and timers; non-standard measuring items such as paper clips and clothespins; weather instruments such as demonstration thermometers and wind socks; and materials to support observations of habitats of organisms such as terrariums and aquariums; and						
(B) use senses as a tool of observation to identify properties and patterns of organisms, objects, and events in the environment.						
(5) Matter and energy. The student knows that objects have properties and patterns. The student is expected to:						
(A) observe and record properties of objects, including relative size and mass, such as bigger or smaller and heavier or lighter, shape, color, and texture; and						
(B) observe, record, and discuss how materials can be changed by heating or cooling.						
(6) Force, motion, and energy. The student knows that energy, force, and motion are related and are a part of their everyday life. The student is expected to:						
(A) use the five senses to explore different forms of energy such as light, heat, and sound;						
(B) explore interactions between magnets and various materials;						
(C) observe and describe the location of an object in relation to another such as above, below, behind, in front of, and beside; and						
(D) observe and describe the ways that objects can move such as in a straight line, zigzag, up and down, back and forth, round and round, and fast and slow.						
(7) Earth and space. The student knows that the natural world includes earth materials. The student is expected to:						
(A) observe, describe, compare, and sort rocks by size, shape, color, and texture;						

Exhibit 2

Region 13 – CSCOPE Science
RFL Formative Review
Grade Level Matrix

(B) observe and describe physical properties of natural sources of water, including color and clarity; and						
(C) give examples of ways rocks, soil, and water are useful.						
(8) Earth and space. The student knows that there are recognizable patterns in the natural world and among objects in the sky. The student is expected to:						
(A) observe and describe weather changes from day to day and over seasons;						
(B) identify events that have repeating patterns, including seasons of the year and day and night; and						
(C) observe, describe, and illustrate objects in the sky such as the clouds, Moon, and stars, including the Sun.						
(9) Organisms and environments. The student knows that plants and animals have basic needs and depend on the living and nonliving things around them for survival. The student is expected to:						
(A) differentiate between living and nonliving things based upon whether they have basic needs and produce offspring; and						
(B) examine evidence that living organisms have basic needs such as food, water, and shelter for animals and air, water, nutrients, sunlight, and space for plants.						
(10) Organisms and environments. The student knows that organisms resemble their parents and have structures and processes that help them survive within their environments. The student is expected to:						
(A) sort plants and animals into groups based on physical characteristics such as color, size, body covering, or leaf shape;						
(B) identify parts of plants such as roots, stem, and leaves and parts of animals such as head, eyes, and limbs;						
(C) identify ways that young plants resemble the parent plant; and						
(D) observe changes that are part of a simple life cycle of a plant: seed, seedling, plant, flower, and fruit.						

Exhibit 3

Region 13 – CSCOPE Science
RFL Formative Review
Suggested Revisions

Grade/Subject:

Year at a Glance (YAG) **Date of Document:**			
Science TEKS Verification (TVM) **Date of Document:**			
Vertical Alignment Document (VAD) **Date of Document:**			
Instructional Focus Document (IFD) **Date of Document:**			
Performance Indicators Evaluation **Date of IFD:**			
UNIT	**ALIGNMENT**	**CONTENT**	**NOTES**

Exhibit 4

Summary of Findings[1]

Grade	# of SEs	YAG		YAG/TVD Agreement	YAG/VAD Agreement	YAG/IFD Agreement	IFD SE	IFD PI Agreement	IFD PI Content Agreement
A	B	C	D	E	F	G	H	I	J
		% SEs Covered at Least 1 Time	% SEs Covered >[2]	% Agreement	% Agreement	% Agreement	% Complete	% Agreement	% Agreement
K	31	100	39	97	100	100	100	100	100
1	33	100	51	97	100	100	100	100	100
2	35	100	40	94	100	91	100	100	100
3	35	100	63	100	100	100	97	100	100
4	32	100	53	97	100	97	100	100	100
5	38	100	42	100	100	97[3]	97	100	100
6	43	100	26	100	100	100	100	100	100
7	44	100	30	100	100	100	100	100	100
8	40	100	38	100	100	100	100	100	100
IPC	40	100	33	100	100	100	100	100	100
Bio	58	100	59	100	100	100	100	100	100
Env Syst	59	100	49	100	100	100	100	100	100
Chem	61	100	33	100	100	100	100	100	100
Physics	51	100	41	98	100	100	100	100	100

A- Describes grade level/course.

B- Describes number of Student Expectations (SE) for each grade level/course.

C- Indicates the percentage of SEs covered at least once based on the YAG.

D- Indicates the percentage of SEs covered more than once based on the YAG.

E- Represents the agreement of timing of presentation of SEs between the YAG and TVD.[4]

[1] Percentage calculation rule: If there was a discrepancy noted with regard to the way a particular SE was represented across two documents (e.g., YAG and IFD), the discrepancy was subtracted from the total number of SEs. The resulting number was divided by total number of SEs.

[2] Agreement of timing of presentation of SEs examines if an SE is presented during the same unit timeframe across documents. For example, if the YAG has an SE introduced in the second six-weeks period, the accompanying IFDs should also reflect this timing.

[3] This calculation is used to illustrate how percentages were determined. When comparing the YAG and IFD for SE 5.2.G, there was inconsistency across documents. SE 5.2.G was listed on the YAG, but did not appear on the corresponding IFD. Therefore, it was marked a discrepancy and in that case, for grade 5, only 37 out of 38 SEs showed agreement as presented on the YAG and IFD. Then 37 (the total number of SEs with agreement on YAG and IFD) was divided by 38 (the total number of SEs for grade 5) for 97% agreement.

F- Describes the SE agreement between the YAG and the VAD.
G- Represents the agreement of timing of presentation of SEs between the YAG and IFDs.
H- Represents the percentage of SEs that is fully covered across IFDs, including partial coverage in one unit followed by coverage of remaining content in later units.
I- Indicates the percentage of SEs included in the PIs that are covered in the IFD.
J- Indicates the percentage of PI content that is aligned with specified SEs covered by the PI.