

### E-Newsletter

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*This newsletter is written specifically for teachers and will include news and information to help you implement the CSCOPE curriculum. In it you will find tools for managing cooperative groups, explanations of CSCOPE documents, easy-to-implement and highly effective instructional strategies, along with a preview of the upcoming six weeks. We hope you enjoy this newsletter and find it useful and informative!*



#### Doc Spot: New Information in the IFD

When planning out your first six weeks, remember to start

with the **Instructional Focus Document**. The IFD is an essential document in planning and guiding your instruction. There have been several sections added that provide a wealth of information.

At first glance, you will notice a section in the upper right hand corner that's titled **State Resources**. The Charles A. Dana Center's TEKS Toolkits, websites, and other various state resources are listed to provide instructional support and information for teachers and students throughout the year.

**Misconceptions and underdeveloped concepts** provides information to address areas where misconceptions in learning have been formed, as well as give insight to concepts students may have trouble understanding. The primary focus is to help build and strengthen student's conceptual knowledge through identifying these areas to highlight and address.

The performance indicators now provide information to tie in the **English Language Proficiency Standards (ELPS)**. This information will help in the planning process if modifications are needed for an ELL student to be successful with their performance indicator. Not sure what the ELPS are? Check out page 2 of this newsletter.

**Key Academic Vocabulary Supporting Conceptual Development** is an addition to the IFD that will help build a common vocabulary among our students. This section will provide key vocabulary and definitions to support the conceptual learning for the unit of instruction.

The enhancements to the IFD truly strengthen the document in its ability to help teachers gain valuable resources and plan for instruction.



Significant increases in the numbers of children with limited English skills in Texas classrooms make it vital that all teachers know something about how children learn a second language. When English Language Learners join your class, you receive information about their levels of English language proficiency. This is a good place to start to get to know your students, but what does it mean as you plan your classroom instruction? We know that our ELLs “require focused, targeted, and systematic second language acquisition instruction to provide them with the foundation of English language vocabulary, grammar, syntax, and English mechanics necessary to support content-based instruction and accelerated learning of English.” (ELPS document) To this end, the English Language Proficiency Standards (ELPS) will help to guide the instructional planning of all teachers.

### ELPS What are the ELPS?

English Language Proficiency Standards (ELPS) were approved in November, 2007 to help us as educators be purposeful in meeting the needs of the English Language Learners in our classrooms. Whereas the ESL TEKS were tied to specific grade levels, the ELPS are tied to levels of English language proficiency (beginning, intermediate, advanced, and advanced high) that occur across grade levels. They address the speaking, listening, reading and writing needs of English Language Learners. The proficiency level descriptors outlined the ELPS show the progression of second language acquisition from one proficiency level to the next and serve as a road map to help content area teachers instruct ELLs in ways that are linked with students' linguistic needs. Students may exhibit different proficiency levels within the language domains of listening, speaking, reading, and writing. The standards guide teachers to meet these needs at a level of challenge that is appropriate for students' English language development levels.

The ELPS are to be implemented as an integral part of each area of the required curriculum for English Language Learners in Kindergarten through Grade 12 beginning this school year, 2008-09. The ELPS replace the English as a Second Language (ESL) ESL TEKS.

### ELPS Background

The foundational concept underlying the ELPS is that all teachers are responsible for English language instruction so that students can master the TEKS. A consistent instructional approach to instruction that integrates effective language acquisition techniques with good content area instruction ensures that all students develop academic and social language necessary for success both in and out of the classroom.

Basic Interpersonal Communicative Skills (BICS) consist of the English needed for daily social interactions. These are the skills we often see evidence of in class discussions. Further observation reveals that these students are some-

times able to discuss concepts, but they lack the requisite academic language which would allow them to continue refining their understanding of academic concepts. Academic language proficiency, known as Cognitive Academic Language Proficiency (CALP), consists of the English needed to think critically, understand and learn new concepts, process complex academic material, and interact and communicate in English academic settings. It typically requires about two years after initial exposure to a second language to acquire conversational fluency; however, at least five years is usually required to catch up to native speakers in academic aspects of the second language (Cummins, 1981).

**ELPS What do the English Proficiency Standards mean for teachers?** Because students often have different levels of English proficiency in speaking, listening, reading and writing, it is challenging to plan instruction. The ELPS assist us here because they delineate the progression of English literacy skills and what they look like at each of four levels of proficiency. Furthermore, the ELPS identify appropriate strategies for continued growth. The good news? The identified strategies are not complicated or new; they include skills that teachers already address in their classrooms such as

- using prior knowledge;
- using visual, contextual and linguistic support to enhance and confirm understanding;
- using and sharing information in cooperative learning interactions; and
- expressing ideas and opinions.

The ELPS identify strategies and approaches aligned with language acquisition levels. Most of these strategic learning strategies are familiar to teachers as well: concept mapping, drawing, memorizing, comparing and contrasting.

Acquisition of academic language does not occur by accident. The ELPS are designed to cause us to consciously plan for and be mindful of how to meet the needs of our ELLs. As students become more proficient with English, teachers will plan for gradually increasing the linguistic complexity of the English students read and hear, and are expected to speak and write.

### ELPS Where are the ELPS referenced in CSCOPE?

The Performance Indicators described in the Instructional Focus Documents reference the ELPS using the icon that has preceded each paragraph of this article; they are listed in the Exemplar Lessons as well. For example, if a Performance Indicator refers to ELPS 1A, this would mean the student is expected to use prior knowledge and experiences to understand meanings in English. Of course this is something that you use to engage all of your students, but now you have documented that you have used the ELPS in planning, implementing and assessing.

*(continued on page 3)*

# Tips & Tools for Managing Cooperative Learning...Think-Pair-Share

**Think-pair-share** is a strategy that gives students “wait time” to think, and allows an opportunity to share their thoughts with a partner in a focused way. This strategy gives the teacher an opportunity to listen in on student thinking while moving around the room, to identify strengths and needs, and then to facilitate a large group discussion by sharing some of the conversations that best respond to the lesson focus. The high level of student response required by this method keeps students engaged in learning.

## What is the procedure for think-pair-share?

### 1. Prepare.

Seat students in fours, with two pairs of students facing one another. In this way, you may change partners for easily as necessary.

Tell students they will be doing a think-pair-share.

Ask an open-ended question or pose a problem to be solved.

**2. Think.** Tell students that they are to think about the question posed without discussing it. Give students sufficient time to think quietly about their responses. Walk around the room to prompt silent, individual thought.

**3. Pair.** Announce that students will discuss their thoughts with shoulder partners. Instruct students to share thoughts with their partners, and to ask for clarification when they don't understand. Listen to student conversations as you move around the room.

**4. Share.** At first, ask for student pairs to volunteer to share. As students become used to this routine, increase student accountability by calling on students randomly. Not every pair will share on every question. Announce that students will interact with eyeball partners. Ask another question, following the same think-pair-share procedure.

## Use think-pair-share when students are:

- making predictions.
- discussing results.
- drawing conclusions.
- developing concepts.
- discussing opinions.
- solving complex problems, individually at first, and then comparing answers.
- discussing solution options to a problem.
- summarizing learning.

## Benefits of think-pair-share.

- Fosters active student involvement. All students have an opportunity to share their thoughts with at least one other student.
- Increases quality of student responses. They have time to reflect during “think time” before responding.
- Increases retention of lesson concepts as students have opportunities to reflect on manageable chunks of information rather than an entire lesson.
- Activates prior knowledge/experience.
- Assists in identification of student misunderstandings and questions in a smaller, safer paired environment.
- Decreases stress for students who are shy about sharing in front of the whole class.
- Provides students opportunities to interact with other points of view.
- Serves as pre-writing. May lead to increased student willingness to respond and greater depth in writing. Increases options for what students share, whether it's their own thinking, their partners, or some combination of the two.

**Think-Write-Pair-Share.** This strategy introduces writing into the procedure. As students **think** about the question, they also **write** their response to the question. (They may use a visual representation such as a web or Venn diagram, draw a picture, write a paragraph. You may want to post options for written response as you introduce this strategy.) As in **think-pair-share**, students pair up with another student, adding to, deleting from, and editing their initial response as appropriate. Responses are then **shared** with the rest of the class.

## Sources.

Kawas, T. Writing in mathematics. Retrieved August 25, 2008, from Mathwire.com Web site: <http://www.mathwire.com/writing/writing1.html>

Samson, F. Think write pair share. Retrieved August 26, 2008 from Geocities.com. Website: [http://www.geocities.com/feliciasamson/think\\_write\\_pair\\_share.html](http://www.geocities.com/feliciasamson/think_write_pair_share.html).

Saskatoon Public Schools. What is think pair share?. Retrieved August 25, 2008, from Instructional Strategies Online Web site: <http://olc.spsd.sk.ca/DE/PD/instr/strats/think/>

(continued from page 2)

The ELPS may be accessed online at <http://www.tea.state.tx.us/curriculum/biling/elps.html>.

You may access an explanation of the alignment of CSCOPE, the 5E's, and the ELPS at [http://www5.esc13.net/cscope/docs/elps\\_cscope\\_5e\\_connection.pdf](http://www5.esc13.net/cscope/docs/elps_cscope_5e_connection.pdf).

Cummins, J. (1981). The role of primary language development in promoting educational success for language minority students. *Schooling and language minority students: A theoretical framework*. Los Angeles: California State University; Evaluation, Dissemination, and Assessment Center.

## Using the CSCOPE documents to plan instruction...

If you are new to CSCOPE, this article is for you!

This information is adapted from a planning process used by Elgin ISD in Central Texas and shared by Krista Marx, curriculum instructional specialist, Glenell Bankhead, principal of Neidig Elementary, and instructional staff at Neidig.

1. **Read through the Instructional Focus Document (IFD).** (Choose your subject from the Home Page. Click the unit you are studying. Be sure to use only units that end in 08-09. When the unit opens on the right side, click View IFD and save it to your desktop.)

- What are the main points of the *rationale*?
- What are the *concepts* addressed in the unit?
- What are the *Key Understandings* in this unit?
- Read the *misconceptions/underdeveloped concepts*. Are there others you can think of based on your classroom experience?
- What *academic vocabulary* will you need to use and emphasize?
- What are the *performance indicators*? Notice the rigor. Have your students typically been expected to perform at this level before? If not, what supports do you need to put into place for student success?
- Read the *ELPS* that are covered by this performance indicator. Not sure where or what they are? See page 2.
- What *TEKS* are covered in the lesson? Review the specificity and highlight any that seems new, or that you maybe haven't typically emphasized enough previously.

2. **Find the TEKS in the Vertical Alignment Documents.** (At the upper left corner of the webpage, click CSCOPE Resources. Choose your subject and then Vertical Alignment Documents.)

- Look at the TEKS from the previous grade level. What TEKS from the previous grade level support

your grade level?

- Look at the TEKS from the next grade level. How does what you teach support what students will learn next year?

3. **Scan each lesson and plan a tentative instructional calendar.** If you give your calendar to students, you may want to include the Performance Indicators, Key Understandings and Guiding Questions.

4. **Plan the activities for your unit.**

- What *handouts or cardsets* will you print? Some handouts can be made into transparencies only and do not need to be printed for each student. Also students may be able to draw the tables or graphic organizers in their journals or spirals, so these may not need to be printed.
- What *materials or manipulatives* do you need to gather?
- Look at the *Guiding Questions*. Can these be posted in the classroom, used in parent newsletters, or placed on the syllabus?
- What is the *new vocabulary* that students will be using? How can this vocabulary be explicitly taught?
- How can this lesson be accommodated for ELL students? Where are the *ELPS* that are referenced in the IFD used in the lesson?
- How can this lesson be accommodated for *students with IEPs*?
- What will I use from our *district resources*? Be certain that outside resources match the Key Understandings and Performance Indicators.

## Quick Website Tips

Check out some of the valuable **CSCOPE Resources**. In the upper left hand corner of your CSCOPE screen, select **Curriculum Elements**. Select **CSCOPE Resources** from the drop-down menu. Select the **Math** tab. You'll see four choices.

- The **TEKS Verification Document** shows the six/nine weeks that a TEKS is taught.
- Materials and Resources** contains the list of materials and resources you'll need for the CSCOPE lessons. Currently these are for 2007-2008, so don't download them yet.
- Vertical Alignment Documents** (VADs) should be saved to your desktop for easy access. They will also be easier to read.
- Year At A Glance**—This is the pdf of the Year At A Glance.



## 1st Six Weeks Lesson Preview



# Mathematics

### Kindergarten

**Unit 1 Our Journey Begins** focuses on orally counting to 20 and introduces the first tool used to help students gain an understanding of the passage of time- a calendar. The unit concentrates on days of the week. The purpose of counting to 20 and investigating a calendar in the same unit is to begin to establish the developmental sequence of number within the calendar as well as introduce the meaning of a number. **During Unit 2 Counting through 5** will begin the process of connecting the numbers 1-5 to an object in a set with a number word and name the cardinality of the set. **Unit 3 Repeating Patterns** focuses on similarities, repetition, and order of patterns. Centers will be used throughout the unit to provide repetition and practice for concepts already introduced. A variety of events will provide the opportunity to recognize and extend patterns.

### 1<sup>st</sup> Grade

**Unit 1 Calendar and Tools** addresses the concept of measurement and sub-concept of time in order to develop an awareness of the duration involved within the units: days, weeks, and months. **Unit 2 Numbers and Place Value** provides opportunities for student to view quantities or numerals from 0-20 in a variety of ways, including the terms "tens" and "ones". Using various concrete model representations, students will begin to connect the quantity to the representation and communicate the relationship between two sets using comparative language. During **Unit 3 Model Story Problems**, students will develop meaning for the operations of addition and subtraction through contextual problems or story problems through composing and decomposing numbers and the comparison of the parts. **Unit 4 Repeating Patterns** lessons rely primarily on physical objects to strengthen student communication skills through oral descriptions of a patterns and comparisons of many different representations of the same pattern. In **Unit 5 Geometry: Identifying Two-Dimensional Figures 1**, students investigate relationships among two-dimensional figures and describe distinctive attributes of a circle, triangle, rectangle and square using formal geometric language.

### 2<sup>nd</sup> Grade

In **Unit 1 Number Strategies**, students develop efficient basic fact retrieval and apply the strategies to solve problems. **Unit 2 Quantitative Reasoning** requires students to compare and order numbers through 99 using concrete manipulatives and record the results symbolically and in words. Money skills such as coin recognition, values of coins, and skip counting of like coins will be reinforced, however students will not counts coins until Unit 5.

### 3<sup>rd</sup> Grade

**Unit 1 Place Value to 999,999** extends student knowledge of the set of whole numbers through 999,999. Place value will continue to be revisited up to the thousands place in the following unit. **Unit 2 Comparing and Ordering Whole Numbers to 9,999** includes using place value to compare and order whole numbers up to 9,999. In **Unit 3 Addition and Subtraction**, students use estimation strategies for addition and subtraction, including rounding and compatible numbers. Students also model both addition and subtraction and connect those models to each operational procedure. Through modeling these operations, students build upon their understanding of place value and the role it plays in operational procedures.

### 4<sup>th</sup> Grade

**Unit 1 Place Value—Whole Numbers and Decimals** contains student expectations that extend student knowledge of the set of whole numbers through 999,999,999. **Unit 2 Operations—Addition and Subtraction including Measurement (Perimeter only)** begins with the use of estimation and compatible numbers in addition and subtraction to facilitate operational fluency. Perimeter problems are introduced and used as context in various addition/subtraction problem-solving situations. In **Unit 3 Operations—Multiplication Models**, students build arrays and area models to enhance their understanding of multiplication and division. These models help students develop fluency with efficient procedures for multiplying and dividing whole numbers, understand why the procedures work and use them to solve problems.

## 5<sup>th</sup> Grade

**Unit 1 Place Value—Whole Numbers and Decimals** extends student of the set of whole numbers through 999,999,999,999. **Unit 2 Developing Operational Procedures** bundles student expectations that address numerical operations. Students will develop fluency with efficient procedures for multiplying and dividing whole numbers, understand why the procedures work and use them to solve problems. Estimation and compatible numbers are also used to facilitate operational fluency including appropriate measurement concepts as applicable.

## 6<sup>th</sup> Grade

In **Unit 1 Rational Numbers**, students generate equivalent forms of rational numbers through a variety of models. They represent percents with concrete models, fractions, and decimals in order to compare and order rational numbers in a variety of equivalent forms. **Unit 2 Factors and Multiples** addresses prime factorization with exponents, factors including common factors and greatest common factor (GCF), and multiples including common multiples and least common multiples (LCM).

## 7<sup>th</sup> Grade

**Unit 1 Comparing and Ordering Positive Rational Numbers and Integers** addresses equivalence between positive rational numbers and percents, and the location of positive rational numbers and integers on a number line in order to connect these representations as part of the set of rational numbers. In **Unit 2 Integer Operations and Graphing**, students add, subtract, multiply, and divide integers through the use of models. Unit 02 also addresses the graphing of integers in a coordinate plane. **Unit 3 Estimation with Decimals and Percents** includes estimation to determine a reasonable solution for problems involving addition, subtraction, multiplication, and division of decimals based on an understanding of place value.

## 8<sup>th</sup> Grade

In **Unit 1 Rational Numbers**, students name, compare, order, and write equivalent forms of rational numbers and then display them on horizontal and vertical number lines. In **Unit 2 Operations with Rational Numbers Including Measurement (Perimeter, Area, Circumference and Volume)**, students review and combine operations with rational numbers and connect various representations of data such as a table, an equation, and a verbal description. This understanding will be applied to various problem situations including real-world situations, applications of percents, circumference, perimeter, area, and volume. **Unit 3 Real Numbers** addresses irrational numbers and scientific notation in order to complete the formal introduction of the real number system.

## Algebra 1

**Unit 1 The Study of Functions** involves collection and analysis of data gathered from real-world problem situations. Data relationships are examined to determine functionality. Characteristics of functions are identified and representations are used to make predictions and critical judgments. Graphing calculator technology is incorporated to collect and analyze data.

Functions are the basis of algebra and will be the focus of Algebra 1 the entire year. In order to understand a function as a dependence of one quantity on another, students need experience in collecting data, organizing data, representing data in multiple ways, and making inferences from both the relationship and the ways in which the relationship is represented. As students compare and contrast the characteristics and representations, they are building the foundation for the next units of study and subsequent mathematics courses.

## Geometry

**Unit 1 Foundations of Geometry** addresses connections between the roles of undefined terms, definitions, postulates, and theorems in Euclidean geometry. Geometric conjectures are tested to help students develop an awareness and understanding of geometry as a mathematical system built from a foundation of undefined terms, definitions, and postulates. In **Unit 2 Functions and the Coordinate Plane**, students connect algebra and geometry through the geometric explorations of distance, midpoint, slope, and parallel and perpendicular lines. Explorations involve multiple representations including concrete, pictorial, graphical, verbal, and/or symbolic representations. **Unit 3 Geometric Patterns** connects patterns in algebra and geometry through investigation of numeric and geometric patterns using various representations, including tables, graphs, verbal descriptions, and algebraic representations. Algebraic repre-

sentations are then used to model geometric properties of figures. In **Unit 4 Transformations**, students develop the properties of transformations in the coordinate plane using geometric and numeric patterns. Isometric transformations are compared and contrasted with dilations. Tessellations and compositions of isometric transformations are generated and investigated.

## **Math Models with Applications**

In **Unit 1 Probability**, students incorporate use of probability models to compare theoretical and empirical probability in situations involving chance. Students also analyze the reasonableness of theoretical models such as binomial and geometric probability in real-world situations. Math Models with Applications is the only high school course where probability is addressed in the TEKS. In **Unit 2 Statistics: Univariate Data**, students incorporate the use of graphical and numerical analysis of the patterns in univariate (one variable) data for interpretation, validation, and making inferences in real-world problem situations. In this unit, students collect univariate data and represent the data in tables and graphs. Students also complete the numerical analysis by finding and interpreting the meaning of the measures of central tendency and the variability around the measures of central tendency.

## **Algebra 2**

**Unit 1 Introduction to Functions** involves collection and analysis of data gathered from real-world problem situations. Data relationships are examined to determine functionality. Characteristics of functions are identified and representations are used to make predictions and critical judgments. Graphing calculator technology is incorporated to collect and analyze data. **Unit 2 Foundations of Functions** bundles students expectations that involve connections between functions and their characteristics, and between parent functions and their transformations. In this unit students analyze functions by investigating their characteristics and representing functions using various models. They determine the domain and range and independent and dependent variables. Students identify functions as continuous or discrete and increasing or decreasing. Transformations are identified and applied to various parent functions. Student knowledge of transformations on parent functions is extended while providing a sneak preview of all the functions that will be introduced in Algebra 2. In **Unit 3 Investigating Inverses**, students are introduced to the concept of inverse relations, investigating inverses through graphing and table. They also investigate interchanging the variables  $x$  and  $y$  in a linear equation and solving for  $y$ . In subsequent units in Algebra 2, when studying quadratic and square root functions and exponential and logarithmic functions, the parent functions and their inverses will be studied in depth. This unit is strictly introductory.

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## **Upcoming Professional Development**

Look for these and other workshops in the e-Campus catalog (<http://www5.esc13.net/index.html>).

### **Maximizing Student Performance: Effective Classroom Strategies.** (FA0813009)

Participants will experience and learn about a variety of instructional grouping strategies. The focus will be on easy to manage and time saving strategies that will successfully engage all types of students in learning.

### **Maximizing Instructional Time: What do your students really know?** (FA0814356)

Why wait until the end of the unit to know what your students know? This course will focus on assessing student knowledge during the unit without the use of time-consuming quizzes. You will examine CSCOPE lessons and identify opportunities for providing feedback on students' work. You will then learn practical, easily implemented processes to plan subsequent instruction using the data you collect. (Please note that this is not a workshop that addresses the CSCOPE unit assessments. The focus is on ongoing assessment for learning.)

Go to the following link for more information about other trainings:

<http://www5.esc13.net/cscope/trainings.php#trainings>.

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### 2nd and 3rd Six Weeks SPARCs

| Grade                   | Workshop ID | Dates |
|-------------------------|-------------|-------|
| <b>K Math/Science</b>   | FA0812914   | 9/15  |
|                         | FA0812941   | 10/20 |
| <b>1st Math/Science</b> | FA0812940   | 9/17  |
|                         | FA0812955   | 10/22 |
| <b>2nd Math/Science</b> | FA0812931   | 9/16  |
|                         | FA0812948   | 10/21 |
| <b>3rd Math</b>         | FA0812917   | 9/15  |
|                         | FA0812945   | 10/20 |
| <b>4th Math</b>         | FA0812953   | 9/19  |
|                         | FA0812963   | 10/24 |
| <b>5th Math</b>         | FA0812946   | 9/18  |
|                         | FA0812960   | 10/23 |
| <b>6th Math</b>         | FA0812919   | 9/12  |
|                         | FA0812947   | 10/20 |
| <b>7th Math</b>         | FA0812956   | 9/19  |
|                         | FA0812965   | 10/24 |
| <b>8th Math</b>         | FA0812950   | 9/18  |
|                         | FA0812962   | 10/23 |
| <b>Algebra I</b>        | FA0812958   | 9/19  |
|                         | FA0812973   | 10/31 |
| <b>Geometry</b>         | FA0812922   | 9/10  |
|                         | FA0812969   | 10/27 |
| <b>Math Models</b>      | FA0812944   | 9/17  |
|                         | FA0812971   | 10/29 |
| <b>Algebra II</b>       | FA0812951   | 9/18  |
|                         | FA0812972   | 10/30 |

These workshops are held at Region XIII from 9:00-4:00 and cost \$50 each.

### Feedback from 1st Six Weeks SPARCs...

- \* I got great idea for the kids from the first day of school.
- \* Great workshop...look forward to more in the future.
- \* What I liked the most was that I got to visit with other math teachers and received much encouragement as a brand new teacher.
- \* Great presentation and great learning time with other colleagues.
- \* Very helpful hints on how to adapt lesson to make more dynamic in the classroom. Also how to use lessons for formative assessment.
- \* This was great and look forward to more. I wish you had these last year.