Rigor. Relevance. Quality

CSCOPE

Mathematics 3rd Six Weeks 2008-2009

E-Newsletter

In this issue:

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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!

Using Wait Time to Jump Start Classroom Discussion

All teachers want to have great classroom discussions with their students. Sometimes, though, eliciting answers can be very frustrating. Using Wait Time 1 and Wait Time 2 can make the difference between surface level conversations and deep, meaningful discussions that help students make sense of difficult content.

Wait Time 1 is the time between when a question is asked and when the teacher calls on someone or allows someone to answer. Rowe (1987) found that the typical American teacher waited only 0.9 seconds before either answering the question herself or calling on a student to answer. Wait Time 2 is the time after a student answers a question before moving on to another question or another student.

When students are given 3-5 seconds of Wait Time 1 or 2, great things happen in classroom discussions. The length and correctness of student responses increase. The number of "I don't know" and no answer responses decreases. The number of answers volunteered by other students increases. Finally, achievement test scores increase. Teachers reap benefits from Wait Time as well. Their questioning strategies tend to be more flexible. The quality and variety of their questions increase. They ask additional questions that require higher level thinking of students (Stahl, 2008).

How can you implement Wait Time in your classroom? When you plan your next lesson, write out a few questions that you plan to ask or use the Guiding Questions in the Exemplar Lessons. Practice saying the question aloud and counting to 5 slowly. Then ask the next question. Practice this several times before trying it out on students. When you try this with students for the first time, everyone may feel a little awkward. At first students will be unaccustomed to silence in the

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CSCOPE
Targeted success with quality curriculum.

Supporting Student Learning through Use of Sentence Frames

Research tells us that readers need to know 90% to 95% of vocabulary in a text in order to understand it. In addition, college-bound seniors have working vocabularies of between 60,000- 100,000 words. (Hirsch, 2003) This is a daunting statistic for any educator! It is especially daunting when we consider the needs of our English Language Learners who must not only learn vocabulary, but also English grammar and syntax as well as content. Using sentence frames is one scaffolding technique to support ELL mastery of language objectives. This sentence frame strategy provides temporary assistance so the learner will later be able to complete a similar task alone in the future.

What is a sentence frame? A sentence frame is a sentence structured around commonly used structures or structures that students need to know. Sentence frames are especially useful to students during the Explain, Elaborate, and Evaluation cycles of the lesson cycle, as these are the components of the lesson cycle when students are developing understanding of and applying academic vocabulary and content concepts.

What are some examples of sentence frames?

___ is like ___. Both are ___.
___ is different from ___. ___is/has___, but ___is/has ___.
___ and ___both mean ___. They are synonyms.
___is greater than ___. I know this because ___.
I predict that ___will happen because ___.
I agree/disagree with ___because ___.
I have a question about ___.
A function is a relationship between two things such as ___ and ___.
The main difference between___and ___is ___.
If ___ happens, then ___ will result.
This graph represents ___ because ___.

Where do I get sentence frames?
Identify the kinds of sentences you would expect a proficient student to use. Look at the Academic Vocabulary in the IFD and the Vocabulary of Instruction in the Exemplar Lessons to select words students need to know. Create sentence frames around these. Study the kinds of language structures and vocabulary used in the TAKS for your content area. Create sentence frames around these.

What do I do with them once I've created them?
Post them in your classroom next to your Key Understandings and Guiding Questions. Refer to them throughout instruction by modeling their use and reminding students to use them.

Why do sentence frames work?
Students don't have to grapple with context, correct grammar and syntax, and content simultaneously. Sentence frames serve as a scaffold for English language learners. They serve as a means to reduce student anxiety about whether they are using correct English, and they free students to interact with content on a more complex level. Students know they can express their content knowledge and rely on the sentence frame as a model for correct English production.

Isn't this valuable for any student, and not just for ELL? Of course! All students will benefit from sentence frames, but we must purposefully plan for our ELL students.

Hirsch, E.D. (2003) Reading comprehension requires knowledge of words and the world. *American Educator,* Vol. 27, No. 1, pp. 16-29.

Quick Tip

Tabs overlapping? Can't select the content area you need? Click on the "Check out the new system home page here" link just under the right side of the black menu bar at the top of the page. This takes you to a page without the Spanish tabs. Need to pull up

Word Banks: More than Décor!

Word banks are like portable word walls that are created to use with specific units of study in any content. Words are added throughout the unit.
They can be used as a resource that keeps content vocabulary visible and also as an accountability tool. The effectiveness of a word bank depends upon what we do with them and how often they are used in the classroom. One way that word banks can be used to increase the level of thinking in your content is to use a strategy called **"Use Three."** It could just as easily be called "Use Two" or "Use Four."

Prior to the beginning of a unit or lesson have your students write what they know about a specific word or topic in their journals. At the end of the unit ask the students to write another explanation of the word or topic, but his time they must use at least three words from the word bank in their explanation. Have students compare this definition with the one they wrote earlier and share within their table groups. The quality of student thinking changes dramatically, simply by holding them accountable for using the content terminology. You will be amazed!
It's as simple as: "Use _____ words from the word bank as you explain…"

Printing words for your word bank……....$5
Laminating words for your word bank……..$10
Making your word bank interactive……PRICELESS!

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room, and you may be also. Second, students may not know why you are being so quiet. One suggestion is to clue students in that you are working on a new instructional strategy called Wait Time and tell them about it. Your students will be happy to help their teacher learn something new.

Bond, N. (2008). Questioning strategies that minimize behavior problems. *The education digest,* 73 (6), 41-45.

Rowe, M.B. (Spring, 1987). Wait time: Slowing down may be a way of speeding up. *American Educator*. (11), 38-43, 47.

Don't ruin your eyesight! Navigate to CSCOPE Resources for your TEKS Verification, Universe, Materials and Resources, Vertical Alignment, and Year at a Glance documents. Once you've selected the document title you want, select [open in a new window] just under the right side of the black menu bar at the top of the page. This takes you to a full screen view of the document.

Professional Development Opportunities: Early Childhood

Region XIII Early Childhood Specialists are teaming up to offer a year-long strand of interactive, practical workshops to build your content knowledge in science, social studies, math, and literacy learning. When you sign up for 3 of these workshops, receive a 50% discount on your 3rd workshop! These workshops target PPCD, Pre-K, and Kindergarten. teachers (including bilingual/ESL.)

Social Studies for Young Children
Nov. 17, 2008 (FA0813299)

Getting the Most from Your Learning Centers
Dec. 3, 2008 (FA0813185)

Math Concepts throughout the Day
Jan 29, 2009 (SP0913298)

Enseñar en Español—Resources and Strategies for Bilingual Classrooms
Feb. 11, 2009 (SP0913190)

Building a Reader through Early Language Development
March 26, 20009 (SP0913184)

How to Include Science in Your Day
Apr. 15, 2009 (SP0913195)

3rd Six Weeks Lesson Preview

Mathematics

Kindergarten

Unit 8 Comparing Numbers through 10 helps students develop consistent, accurate counting skills and a strong sense of quantities 1–10 and their relationships. In **Unit 9 Geometry: Determining Sorting Rules**, students use attributes to describe and compare objects. **Unit 10 Ordering Objects and Events** introduces the order and sequence of objects and events.

1st Grade

In **Unit 11 Number Sense and Pattern 1**, students unitize quantities to forty and focus on developing and recognizing base-ten patterns. The unit also explores the ten doubles facts from 0 + 0 to 9 + 9 and the number relationship between addition and subtraction. **Unit 12 Operations 1** develops the meaning for the operations of addition and subtraction by exploring three of the four basic structures: join problems, separate problems, and part-part-whole problems. **Unit 13 Money: Identification of Coins** focuses solely on the identification and value of coins. Relationships among these coins will be addressed later in the year. **Unit 14 Geometry: Three-dimensional Figures** develops the use of formal geometric vocabulary when describing three-dimensional figures.

2nd Grade

Unit 5 Addition and Subtraction introduces the relationships between place value and addition and subtraction. **Unit 6 Fractions and Possibilities** addresses the fractions and the likelihood of events. The use of zero, half, and one as fractional benchmarks will facilitate future learning of comparing fractions and in measurement. This unit will also explore whether an event is more likely or less likely to occur.

3rd Grade

Unit 6 Multiplication and Division Applications addresses modeling and applying multiplication and division in meaningful problem situations. Various multiplication and division models (including number lines) and patterns are used to facilitate operational understanding. In **Unit 7 Fractions** students develop an understanding of fractions by describing and constructing fraction models. Fractions as parts of whole objects, parts of a collection, and as locations on number lines are all investigated. Students make a connection to fractional parts of a whole when determining the value of money and to measure length and time.

4th Grade

In **Unit 6 Fractions** students describe and construct fraction models. Fractions as parts of whole objects, parts of a collection, and as locations on number lines are all investigated. Students make a connection to fractional parts of a whole when determining the value of money and to measure length and time. **Unit 7 Graphs and Tables** incorporates sets of related data and the interpretation of bar graphs.

5th Grade

Unit 6 Fractions addresses the concepts of fractions and mixed numbers including equivalents, models, and decimal relationships. Students will also use a number line to reinforce numerical relationships as well as place value of whole numbers, decimals, and fractions. In **Unit 7 Fractions and Probability** students identify results of an experiment in fraction form.

6th Grade

Unit 5 Probability addresses the probability of a simple event, sample spaces, and circle graphs. In **Unit 6 Measurement: Perimeter, Area, Circumference**, students will perform customary and metric (SI) conversions, and solve problems involving length, area and perimeter, and circumference in order to investigate measurement relationships. **Unit 7 Data Representation 1** includes data representation, measures of central tendency and range in order to interpret and analyze sets of data.

7th Grade

Unit 7 Algebraic Representations and Equations relates numerical, geometric, verbal, and symbolic form and arithmetic sequences in order to extend algebraic reasoning. In Unit 8 **Proportional Relationships**, students apply proportions to solve application problems involving unit rates, ratios and percents.

8th Grade

Unit 6 Measure of Data focuses on using measures of central tendency to describe real-world data sets, how a change in the data affects the measure of central tendency used to describe the data, and how to choose a measure of central tendency to create assumptions about the data. **Unit 7 Data Representation and Analysis** addresses representation and analysis of statistical data in order to provide students with the ability to analyze data displayed in a variety of representations. In **Unit 8 Probability**, students connect independent and dependent events with experimental and theoretical probability using a variety of experiments.

Algebra 1

Unit 4 Linear Functions and Applications involves collection of real-world data and its analysis. Data is gathered from real-world problem situations. Data relationships are analyzed by organizing data, graphing scatter plots, determining trend lines, and applying the representations to make predictions and justify conclusions about the problem situation. Relationships among quantities will be determined using multiple representations such as tables, graphs, verbal and symbolic. Representations will be interpreted and applied to solve problem situations. In **Unit 5 Systems of Equations**, students connect functions, equations, and systems of equations.

Geometry

Unit 9 Similarity connects triangle similarity relationships and applications of similar figures. In **Unit 10 Right Triangles**, students explore the relationships in right triangles through the Pythagorean Theorem and relationships between the sides of special right triangles, including trigonometric ratios. **Unit 11 Quadrilaterals** explores the properties of quadrilaterals. In this unit, students identify the characteristics of the family of quadrilaterals.

Math Models with Applications

In **Unit 5 Data Collection and Functions**, students compare various functions through data collection and analysis. They collect and organize data, represent the data in multiple ways, and make inferences about both the relationship and the ways in which the relationship is represented. Students investigate these data relationships using previous skills, technology, and experimental investigations.

Algebra 2

Unit 6 Quadratic Functions, Equations, and Inequalities explores the characteristics and applications of quadratic functions, equations, and inequalities. In **Unit 7 Square Root Functions, Equations, and Inequalities**, students explore the characteristics and applications of square root functions, equations, and inequalities.

4th and 5th Six Weeks SPARCs

Grade	Workshop ID	Dates
K Math/Science	FA0812985 SP0913049	12/1 2/2
1st Math/Science	FA0812995 SP0913079	12/3 2/4
2nd Math/Science	FA0812991 SP0813065	12/2 2/3
3rd Math	FA0812986 SP0913055	12/1 2/2
4th Math	FA0812998 SP0913088	12/5 2/6
5th Math	FA0812997 SP0913085	12/4 2/5
6th Math	FA0812987 SP0913061	12/1 2/2
7th Math	FA0813001 SP0913094	12/5 2/6
8th Math	FA0812999 SP0913089	12/4 2/5
Algebra I	FA0813002 SP0913084	12/5 2/6
Geometry	FA0812988 SP0913063	12/1 2/2
Math Models	FA0812996 SP0913081	12/3 2/4
Algebra II	FA0813000 SP0913098	12/4 2/5

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

LOOK!

TALA Stipends for 6th, 7th, and 8th Grade Teachers!