

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!

In this issue:

- A Purpose for Learning: Using Guiding Questions
- ESL Strategies: Random Oral Questioning
- What is a VAD and what is its purpose?
- Preview of the 5th Six Weeks
- Resources: Tales from the Trenches, Opportunities for Professional Development, Research Source

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Tips and Tools for Managing Cooperative Groups

Our previous newsletter offered tips for cooperative group size, assignment, and tasks with time limits. In this issue, we'll briefly describe two group techniques. Notice that these strategies promote both individual and group responsibility, small and large group communication.

Teammates Consult (3-4 students)

- Team members each have identical questions to answer on paper.
- Students place their pencils in the team cup.
- The teacher (or selected student) reads the first question aloud, gives students time to discuss possible answers, and asks if everyone is ready.
- When everyone is ready, teachers signals students to pick up their pencils.
- **Without talking**, everyone writes his/her own answer.
- Students place their pencils back in the team cup.
- The teacher (or selected student) reads the next question.

Showdown. (Teams of four.)

- Prepare thought-provoking questions; write them on cards with answers on the back.
- Group students in teams of 4. Give a white board, markers, and eraser to each team. Team members number off one to four.
- Teacher or student leader chooses a card and reads the question.
- When team members agree on the answer, they write it on the white board..
- The leader says, "Showdown. Student number x will defend the team's answer."
- Teams hold up their white boards. The previously identified students number x may be called upon to justify the team's answer to the other teams. If all agree, the teacher or student leader reads the next question.

ESL Strategy of the Month...

Anyone who has been in a classroom for any time knows it's difficult to make sure that everyone is paying attention and interacting with the content. This month's tip is called **Random Oral Questioning**. Research by Buck (1997) shows that there is anywhere from a 22-33% increase in student achievement when high level discussion questions aligned to the standards are posed randomly than when participation is voluntary. With this technique, the students' level of concern is raised, and their focus is increased.

Before Using This Technique. Create a supportive atmosphere of responsibility and respect, where all students know that they will all be expected to respond and all students are supported.

Second, teach students appropriate ways to respond if they don't feel prepared to answer the question at the time it is asked. "May I have more information?" "May I have more time?" "May I ask a friend for help?"

Third, you'll be giving students think time. Teach them the signal you want them to use so you know they've thought of an answer—hands clasped on desk or a lowered hand.

Lastly, have students write their names on an index card or popsicle stick.

What it Might Look Like. "Everybody raise your hand. When you can answer this question, please put your hand down. Remain quiet until everyone has finished thinking." Ask your question. When all hands are down, call on students by selecting a card or popsicle stick. The student may either answer the question or ask for more time/more information/help from a friend. Make sure you come back and call on that student again before the end of class.



This establishes the idea that it is ok to pass, but everyone is expected to participate by the end of the discussion. Continue to use this procedure until you have finished your discussion.

Does this only help for ESL students? This works for ANY student, but it is especially important for ESL students to have time to process the language of the question so they can then access the content. Giving think time and teaching students a signal allows all students to process content at a deeper level and to give more thoughtful responses. Teaching students how to respond when they need more time or information, increases their repertoire of problem solving skills. Keys to success with this technique? Teach students the procedure, practice the procedure, and maintain a supportive learning environment.

CSCOPE Doc Spot...VAD Exposed

What is it? What is its purpose? How do you use the VADs?



The Vertical Alignment Documents (VADs) present standards across grade levels so that is clear how the depth and complexity of standards evolve over time. The VAD helps teachers see how student expectations (SEs) develop from the previous grade level, and at what level of rigor students will be expected to perform in the next grade level. Specificity (in blue print) has been added to each SE, based on study of the released TAKS, and TAKS information booklets. Tested student expectations are highlighted in gold, giving a clear visual to assist the teacher in prioritizing instructional time and targets.

Where do you find the VAD? Click on Curriculum Elements at the top of your home screen and scroll down to Resource Samplers. Select your content area and then you will see a Vertical Alignment Document folder. Select the grade level(s) that apply to you.

How do you use it?

- To plan instruction at the appropriate level of content and skill complexity.
- To assess student areas of need and plan effective intervention to address gaps.
- To select appropriate materials and resources to build student mastery.
- To prioritize instructional time.

In the next CSCOPE Doc Spot...The 5 E Lesson

Have a general CSCOPE question that you think would be a good article for the newsletter? Send it to cindy.hamilton@esc13.txed.net. You could be famous!



5th Six Weeks Unit Preview

Mathematics



Kindergarten: In **Unit 13**, students will explore the numbers 16-20 using real objects while continuing to build on conceptual understanding of #1-15 as well as continuing to explore addition and subtraction situations. **Unit 14** students will build, extend and record patterns. In **Unit 15** Geometry, students will recognize the attributes of figures and use informal language to express the properties of the figures.

1st Grade: 5th Six Weeks has 6 small units. **Unit 19** focuses on comparing numbers by sorting groups of 10s and 1s, and collecting, sorting and analyzing data. In **Unit 20**, students will model addition and subtraction situations. **Unit 21** extends the evaluation of money from Unit 16. **Unit 22** introduces the set model for fractions. **Unit 23** introduces the idea of an event being certain or improbable. Finally **Unit 24** focuses on Additive Patterns—starting with a base amount and adding a consistent amount of the same object.

2nd Grade: Units 9 and 10 focus on measurement and geometry. **Unit 9** reinforces the use of formal language such as square corners, opposite sides, vertices, edges and faces when describing a geometric figure. Students will focus on non-examples of polygons as well. In addition students will compare and contrast geometric figures using this new formal vocabulary. **Unit 10** provides the foundation for introduction of formal measurement in grade 3 by teaching measurement using nonstandard concrete models that approximate standard measures.

3rd Grade: The focus of **Unit 11** is to collect, organize, display and interpret data in pictographs and bar graphs. In addition students will describe the probability of events that are certain. **Unit 12** reviews estimation with compatible numbers and rounding, and all four operations using models. The emphasis will be on choosing the correct operation needed to solve a problem. This unit supports TAKS Objective 6.

4th Grade: In **Unit 11**, students will identify and describe types of lines and angles. They will create and describe attributes of 2-d and 3-d figures. **Unit 12** continues the study of geometry with transformations, congruence and symmetry. Since geometry is a formal description of our physical world, real world models and hands on materials are a must. **Unit 13** begins the discussion of probability by having students find combinations of sets of data and/or problem situations.

5th Grade: In **Unit 10** students create and describe the attributes 2-d and 3-d figures and perform transformations. **Unit 11** has students plotting points on the coordinate plane and creating line graphs. Students will also create bar graphs and pictographs, and discuss characteristics of data such as median, mode and range. Please note that discussion of mean is a 6th grade TEKS. **Unit 12** allows students further opportunity to investigate various types of data and the best way to represent them.

6th Grade: Unit 13 is students' first introduction to integers. This unit uses real-world situations to connect to intuitive understanding. Although students are introduced to integers, they will only graph points in the first quadrant. **Unit 14** expands on knowledge and understanding of data representation from Unit 9. They will discuss outliers to deepen understanding of how changes in a data set affect statistical analysis. Additionally, they will graph points with fractional coordinates on the coordinate plane. **Unit 15** develops the idea of multiple representations of data (verbal descriptions, algebraic sentences, tables and graphs). Through this exploration, students will compare proportional and non-proportional relationships and understand the characteristics of proportional relationships.

7th Grade: In **Unit 13** students will compare theoretical and experimental probabilities. **Unit 14** continues the study of data analysis with line graphs, line plots, stem-and-leaf plots, circle graphs, and bar graphs. In 7th grade students are introduced to Venn diagrams and create circle graphs. In addition, students will make inferences and convincing arguments based on data, rather than just reading the graphs.

8th Grade: Unit 12B is a continuation of surface area, volume, and the effects of dimensional change on surface area and volume from 4th six weeks. **Unit 13** reviews and wraps up these same concepts using a real-world project.

Algebra I: In **Unit 9** students will formulate quadratic equations in problem situations, use various methods to solve the equations, and justify the solutions based on the situation. In **Unit 10** students will analyze real-world situations to determine which function best fits the problem situation. They will use graphs, tables, verbal descriptions and algebraic generalizations to make predictions, critical judgments and justifications.

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Resources



Source

Buck, H. J. (1997). Maximizing Student Learning with the Use of Random Oral Questioning in the College Classroom. *Journal of Educational Research*, 37(1). Retrieved January 26, 2008, from http://64.233.1***.104/search?q=cache:JKfVCgt0cP4J:www.coedu.usf.edufjer/1997/1997Buck.htm+%22student+participation%22+%22randomly+calling%22&hl=en&ct=clnk&cd=6&gl=us.

For further information on cooperative learning methods and Techniques:

www.Kaganonline.com

Cooperative Learning for Secondary Science Educators at <http://courses.ed.asu.edu/clark/CoopLearn/Index.htm>

Using Jigsaw, <http://www.jigsaw.org>

Access unit assessment FAQ's

<http://www5.esc13.net/csscope/docs/GUIDE%20TO%20UNDERSTANDING%20CScope%20UNIT%20ASSESSMENTS.pdf>

(Continued from page 3)

Geometry: Unit 15 begins the study of 3-d solids with exploration of spatial relationships. Students will model 3-d figures with cubes and draw pictorial representations. They will use algebra as they explore the relationships between the attributes of the solids. In **Unit 16**, students study lateral area, surface area, volume and the effects on these measures when dimensions are changed.

Math Models: Unit 8 combines the fundamental strands of mathematics into activities and practice problems that are typical for the TAKS test. The activities will be used to strengthen student knowledge and confidence in their understanding of the content.

Algebra II: Unit 10 Systems of Equations will require students to work with many different relationships simultaneously. This will be accomplished through tabular, graphical and algebraic methods, along with particular attention to interpreting situations in verbal form and concrete strategies for translating "word problems" into algebraic models. Skills learned in this unit will be applied in Unit 11 to nonlinear relations. **Unit 11** is the study of systems of relations—quadratic, radical, rational, etc. Special attention will be given to problems that arise from geometric formulas involving perimeter, area, surface area and volume. Students will encounter a natural review of methods used with quadratic expressions—factoring, "FOIL-ing", and using the quadratic formula. This natural review, along with learning how to complete the square, provides students with the algebraic foundation for the conic sections.